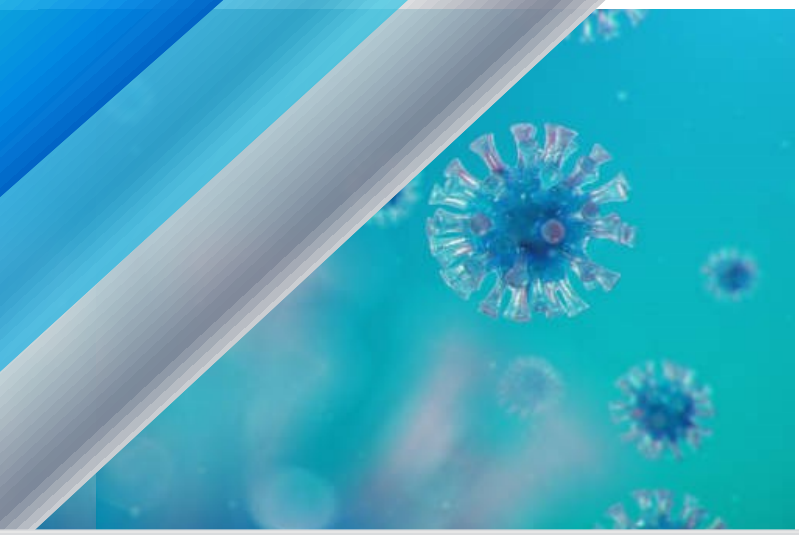
Sugar Regulatory Administration

2020 ANNUAL REPORT

The Philippine Sugarcane Industry Navigating Through COVID-19



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Administrator's Message

In 2020, the world was thrust in a rare circumstance brought about by the COVID-19 pandemic. The implementation of lockdowns and the restriction of people's mobility were also imposed by the Philippine government as recommended by the joint forces of the Inter-Agency Task Force (IATF) and the Department of Health (DOH) to prevent the further spread of the virus. This action has sadly impeded local and international businesses, the private and government sectors. All are affected including the sugarcane industry's farmers, mills, refineries bioethanol distilleries, sugar-based manufacturing facilities, stakeholders and laborers alike. To concur with the IATF health and safety guidelines, Sugar Regulatory Administration Administrator Hermenegildo R. Serafica implemented work-from-home (WFH) schedules for all its employees in Quezon City, Pampanga, La Granja and Bacolod offices. Transportation services were also provided to employees for additional safety. In the face of this difficult situation experienced by all, it remained business as usual in SRA, and day to day operations were continued to be carried out under the "new normal" environment.

In retrospect, total sugarcane area at 399,788 hectares in Crop Year 2019-2020 was 2.4% lower than CY 2018-2019 at 409,714 hectares. In spite of this, sugarcane production managed to increase by 7% and has reached 23,299,178 metric tons. Farm productivity also improved from 53.04 TC/Ha to 56.25 TC/Ha. Total raw and refined sugar, on the other hand, are 2.146 MMT and 16.79 M LKg, respectively. In comparison to the previous crop year, raw sugar production increased by 3.5%, while refined sugar increased by 1.5%.

Prevailing sugar prices of raw and refined sugar remained stable at Php 45.00 and Php 50.00 per kilogram, respectively. Millsite price of domestic "B" sugar averaged at Php 1,493.79 per Lkg from September 2019 to August 2020.

It's also important to note that the country enjoyed a sufficient supply of sugar in crop year 2019-2020 where total sugar supply in raw value (composed of local production and imports), reached 2.6 MMT. On the other hand, total demand in raw value, which is the aggregate of domestic withdrawals, import withdrawals, and exports reached 2.4215 MMT.

With regards to SRA's interventions in 2020, programs were refocused to immediately mitigate the adverse impact of the COVID-19 pandemic to the industry and its stakeholders. Aside from the major programs under the Sugarcane Industry Development Act (SIDA), 29,702 small farmers were allocated with Php 5,000.00 from the DA Bayanihan II Fund in the form of cash and food assistance.

HERMENEGILDO R. SERAFICA
Administrator

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CORPORATE OBJECTIVES

The Sugar Regulatory Administration (SRA) was created by virtue of Executive Order No. 18 s. 1986 which declares that: *"it shall be the policy of the State to promote the growth and development of the sugar industry through greater and significant participation of the private sector and improve the working conditions of laborers"*.

RA 10659 or the Sugarcane Industry Development Act of 2015 further declares the policy of the State to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources, and improve the incomes of farmers and farm workers, through improved productivity, product diversification, job generation, and increased efficiency of sugar mills.

In order to carry out the foregoing policies of the State, the SRA shall operate with the following objectives"

1. *To institute an orderly system in sugarcane production for the stable, sufficient and balanced production of sugar, for local consumption, exportation and strategic reserves;*
2. *To establish and maintain such balanced relation between production and requirement of sugar and such marketing conditions as will ensure stabilized prices at a level reasonable profitable to the producers and fair to consumers;*
3. *To promote the effective merchandising of sugar and its by-products in the domestic and foreign markets so that those engaged in the sugar industry will be placed on a basis of economic viability;*
4. *To undertake such relevant studies as maybe needed in the formulation of policies and in the planning and implementation of action programs required in attaining the purposes and objectives set forth under E.O. 18 s. 1986.*
5. *To implement productivity improvement programs such as block farming, farm support initiatives like farm management, technical assistance and socialized credit, farm mechanization, research and development, and extension services to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources and improve incomes of sugarcane farmers and workers.*
6. *To establish a supply chain monitoring system from sugarcane to sugar at the retail level to ensure sufficiency and safety of sugar.*

MANDATE

The legal mandate of SRA is embodied in Executive Order No. 18 dated May 28, 1986 creating the Sugar Regulatory Administration. It states that the policy of the State is to promote the growth & development of the sugar industry through greater participation of the private sector and to improve the working conditions of the laborers.

Further, Republic Act 9367 s. 2006 (Biofuels Act of 2006) mandated SRA, as member of the National Biofuel Board (NBB), to develop and implement policies supporting the Philippine Biofuels Program and ensure security of domestic sugar supply.

Furthermore, Republic Act 10659 otherwise known as the "Sugarcane Industry Development Act of 2015" mandates SRA and other government entities to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources, and improve the incomes of farmers and workers, through improved productivity, product diversification, job generation and increased efficiency of sugar mills.

VISION, MISSION & CORE VALUES

VISION

"By 2040, the Philippines shall have globally competitive sugarcane industry that supports food, power, and other related industries through an institutionally competent SRA and committed stakeholders, for a secured future for Filipinos."

MISSION

"SRA is a Government Owned and Controlled Corporation which formulates responsive developmental and regulatory policies, and provides RD&E services to ensure sufficient supply of sugarcane for a diversifies, sustainable and competitive industry that improves productivity and profitability of sugarcane farmers and processing industries, and provides decent income for workers towards enhancing the quality of life of Filipinos."

CORE VALUES

Integrity

We employ the highest ethical standards, demonstrating honesty and fairness in every action that we take.

Innovativeness

We deliver public service to the stakeholders of the sugarcane industry in a creative way, anticipate change and capitalize on emerging opportunities.

Competence

We will strive to deliver public service effectively by improving our knowledge base socially, environmentally and technically.

Professionalism

We treat others with the highest degree of dignity, equality and trust and respect their beliefs and rights as fellow public servants and stakeholders of the sugarcane industry.

Accountability

We take responsibility for our performance as public servants and compliance to legal requirements pursuant to government rules, regulations and existing laws.

STRATEGIC GOALS
(2017-2022)

SOCIO-ECONOMIC IMPACT

Empowered sector significantly contributing to food security and poverty reduction.
Maintain balanced sugar supply and demand requirements.

STAKEHOLDERS

Improve income, profitability and global competitiveness of the sugarcane industry.

INTERNAL PROCESS

Provide responsive technical assistance and extension services to sugarcane industry stakeholders.
Enforce and implement pro-active and effective policies, rules and regulations.

LEARNING & GROWTH

Sustain the development of expertise and human resources in the field of sugarcane industry, development and related areas.

FINANCE

Maintain sound financial management.

CORPORATE GOVERNANCE STATEMENT

Section 6. Corporate Governance Statement – Guiding principles to the governing boards, executive officers and employees, SRA adopts a Corporate Governance Statement which will inspire their actions and decisions in the operations and affairs of SRA:

> ***"The SRA shall be a transparent, accountable, dynamic, trustworthy, responsive, competitive and professional Government-Owned and/or Controlled Corporation (GOCC) primarily responsible for the growth and development of the Philippine sugarcane industry. It shall be governed by an ethical and competent Board and Management who shall promote good governance and maintain high quality standards of public service to protect and safeguard the interests and rights of its stakeholders, sugarcane industry partners and other clienteles."***

2020 DIRECTORY OF SRA OFFICERS

SRA OFFICIAL	DESIGNATION/ DEPARTMENT	E-MAIL ADDRESS	CONTACT NUMBER/S
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BIOGRAPHICAL DETAILS OF THE SRA BOARD

NAME & DESIGNATION	QUALIFICATIONS	DATE OF FIRST APPOINTMENT	RELEVANT EXPERIENCE
HERMENEGILDO R. SERAFICA *Administrator and Co-Chair Sugar Board*	- Bachelor of Science in Mechanical Engineering, University of San Carlos (1978)	09/29/2017	• CHAIRMAN Philippine Sugar Corporation • PRESIDENT HFT&E Serafica Realty Inc. • PRESIDENT H Serafica & Sons Corporation • PRESIDENT F.S. Serafica Enterprises, Inc. • CORPORATE SECRETARY Pepite Serafica Development Corporation • PRESIDENT HR Serafica Plantation Corp. Brgy. Valencia, Ormoc City, Leyte from July 2015 to September 30, 2017 • CHAIRMAN Ormoc-Kananga Mill District Development Council Foundation, Inc (MDDC) • MEMBER – PRIVATE SECTOR REPRESENTATIVE LOGISTICS SECTOR Regional Development Council – • PRESIDENT Leyte Cane Planters Association, Inc. • MEMBER – BOARD OF DIRECTOR United Sugar Producers Federation of the Phils. Inc. (UNIFED) • MEMBER BOARD OF TRUSTEES Philippine Sugar Research Institute (PHILSURIN • GUEST DIRECTOR PHILSURIN Finance Committee • BOARD MEMBER Ormoc Sugarcane Planters Association (OSPA)
ROLAND B. BELTRAN *Board Member* Miller's Sector	Bachelor of Laws – San Beda College (1989) Bachelor of Arts Major in Economics – San Sebastian College (1985)	12/12/2016	• COMMISSIONER on Bar Discipline – Integrated Bar of the Philippines • LAWYER-PARTNER – Beltran & Reyes Law Offices • ASSOCIATE LAWYER – Ledesma Saludo & Associates • LEGAL ASSISTANT – SM Investment
EMILIO BERNARDINO L. YULO *Board Member* Planter's Sector		11/21/2017	• COMMISSIONER on Bar Discipline – Integrated Bar of the Philippines • LAWYER-PARTNER – Beltran & Reyes Law Offices • ASSOCIATE LAWYER – Ledesma Saludo & Associates • LEGAL ASSISTANT – SM Investment • PARTNER, Yulo Villarin & Barcelona Law Office (2004-Present) • CHAIRMAN- Committee on Laws& Good Governance-Province Negros (2010-2013) • MEMBER - Sanguniang Panlalawigan of 5th District Province of Negros Occidental (2010-2013) • VICE GOVERNOR, Province of Negros Occidental (2008- 2010) • PROFESSOR, College of Law University of La Salle- Bacolod (1997-2011) • CHAIRMAN, Committee on Environment-Province of Negros Occidental (2018- 2010) • Co-CHAIRMAN/MEMBER, Provincial School Board- Province of Negros Occidental (2004-2010) • REGIONAL CHAIRMAN - Region VI

			Provincial Board Members League of the Philippines (2007-2008) • CHAIRMAN- Committee on Education-Province of Negros Occidental (2004-2008) • MEMBER - Sanguniang Panlalawigan of 5th District Province of Negros Occidental (2004-2008) • CITY LEGAL OFFICER, City of Himamaylan (2001-2003) • PARTNER, Sarmiento Yulo Law Offices • PROFESSOR, College of Business & Accountability University of La Salle-Bacolod (1997-2000)

TRAINING/S ATTENDED BY THE ADMINISTRATOR

NAME & DESIGNATION	Title & Date of Training
HERMENEGILDO R. SERAFICA Administrator and Co-Chair Sugar Board	➢ "Mindfulness: Practical Tools for Uncertain Times", July 17, 2020 (INNOV8 online)

SUGARCANE INDUSTRY DEVELOPMENT ACT OF 2015

As of December 2020

BACKGROUND

Republic Act 10659 otherwise known as the Sugarcane Industry Development Act of 2015 (SIDA) aims to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources, and improve the incomes of farmers and farmworkers, through improved productivity, product diversification, job generation, and increased efficiency of sugar mills.

SIDA mandates the implementation of five (5) major development programs for the industry which are briefly described, as follows:

1: Infrastructure Program. The infrastructure program is designed to facilitate the transport of sugarcane to mills and distilleries, enhance the marketing and export of sugar and other products derived from sugarcane, and complement productivity improvement measures mandated by SIDA law.

2: Block Farm Program. The block farm program is institutionalized in the sugarcane industry through SIDA to professionalize the management of small farms, thereby capacitating the small farmers in the adoption of science-based farming systems and technologies, transforming them into agripreneurs and insuring steady supply of productivity enhancement services towards improved income and better livelihood opportunities. The program is the consolidation of small farms including farms of agrarian reform beneficiaries, as one larger farm, with a minimum area of thirty (30) hectares within two-kilometer radius, to take advantage of the economies of scale in production of sugarcane, such that the activities in the small farms are aligned and implemented to ensure the efficient use of farm machineries and equipment, deployment of workers, volume purchase of inputs, financing, and other operational advantages, as well as recognition by sugar mills, government financial institutions, private investors, but the ownership of each small farm remains with the land owners. This program was created for the purpose of boosting the production of sugarcane and sugar and to increase the incomes of sugarcane farmers/planters and farm workers.

3: Socialized Credit Program (SCP). This is one of the farm support programs under SIDA which is made available at low interest rate to small sugarcane farmers and service centers duly registered with SRA. The SCP fund is being managed by the Landbank of the Philippines (LBP). For other farms that are not eligible under the block farm program, a support program was made available through Landbank of the Philippines (LBP), for the acquisition of production inputs, farm machineries, and implements necessary for the continuous production of sugarcane.

4: Scholarship Program. A component of the Human Resource Development Program for the sugarcane industry which provides for the development of a sustainable human resources. The DOLE, in collaboration with the SRA, the Commission Higher Education (CHED), the TESDA, the Professional Regulation Commission (PRC) and the private sector are mandated to formulate and implement a Human Resource Development Master Plan for the sugarcane industry which includes a scholarship program for the underprivileged but deserving college and post graduate students who are taking up courses in relevant fields of discipline in SUC's which have programs in agriculture, agricultural engineering and mechanics, and chemical engineering/sugar technology; and for vocational courses and skills development for farmers and farm technicians, and skilled workers in sugar mills, sugar refineries, distilleries and biomass power plants.

5: Research, Development, and Extension Program. In coordination with the Department of Science and Technology (DOST), as well as relevant state universities and government research and development institutions and the private sector, the SRA intensifies researches on sugarcane high yielding or flood resistant varieties, pest control and prevention, the latest farming, milling, refining and biomass co-generation technologies, soil analysis and fertility mapping of sugarcane areas, weather monitoring and climate change adaptation measures, sugar and sweetener consumption, and other viable products that can be derived from sugarcane. SRA in partnership with the Mill District Development Councils (MDDCs) shall provide extension services which shall include, but not limited to, provision of technical assistance and advice, conduct of tests, propagation, and dissemination of high yielding varieties, and operation of demonstration of farms.

SIDA DEVELOPMENT GOALS

Republic Act No. 10659 entitled, "AN ACT PROMOTING AND SUPPORTING THE COMPETITIVENESS OF THE SUGARCANE INDUSTRY AND FOR OTHER PURPOSES" otherwise known as the "SUGARCANE INDUSTRY DEVELOPMENT ACT OF 2015" is created to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources, and improve the income of farmers and farm workers through improved productivity, product diversification, job generation and increased efficiency of sugar mills.

For these purpose the state shall: (a) establish productivity improvement programs; (b) provide the needed infrastructure support; (c) enhance research and development of other products derived from sugar, sugarcane, and their by-products; (d) provide human resource development and extension services; and (e) provide financial assistance to small farmers. (RA, 10659 – "Sugarcane Industry Development Act of 2015, SIDA)

SIDA PROJECT FUNDING AND APPROPRIATIONS

In RA 10659, Section 11 of SIDA Development Act of 2015 mandated appropriations, the Department of Budget and Management (DBM) id hereby mandated to include annually, starting the year 2016, an initial aggregate amount of Two billion pesos (P2,000,000,000.00) in the President's program of expenditures for submission to Congress and allocated, as follows:

(a) Fifteen percent (15%) for grants to block farms under the Block Farm Program;
(b) Fifteen percent (15%) for Socialized Credit Program;
(c) Fifteen percent (15%) for Research, Development and Extension Program;
(d) Five (5%) for Scholarship grants and;
(e) Fifty percent (50%) for the Infrastructure support programs.

In the identification and prioritization of specific programs and projects, the SRA conducts prior consultation with representatives of block farms, sugarcane farmers and workers, sugar millers, refiners, bioenergy producers, and producers of other products derived from sugarcane and its by-products.

As of December 2020, the latest funding and appropriations of SIDA Projects are as follows:

SIDA Projects	Allotment (in Thousand Pesos)		Disbursement (in Thousand Pesos)		
	Appro	SARO	Utilization	Utilization Rate	Unutilized Balance
Block Farm	1,174,697	1,174,697	773,342	65%	401,335
Socialized Credit	624,697	624,697	624,697	100%	-
Research and Development	468,179	468,179	401,120	85.68%	67,059
Bridge Construction and Repair	59,226	49,060	32,260		16,800
Scholarship	69,742	69,742	39,942	57.27%	29,800
Farm to Mill Roads	2,637,358	2,637,358	2,329,185	88.31%	308,200
Total	**5,033,926**	**5,023,760**	**4,200,546**	**83.61%**	**823,214**

Justifications of the remaining 16% undisbursed but already obligated and committed program beneficiaries

1. **Scholarship Program**
   - The 30M under GAA 2019 Represents budget for the current scholars already enrolled at the different SUC's for academic year 2019-2020
   - Mode of release for the stipends and other allowances to scholars is on monthly basis
2. **Block Farm Program**
   - The P401M is already committed to different Block Farm Beneficiaries and COs where MOAs are already signed and some disbursements are on process.
3. **Research and Development Program (GAA 2016-2017)**
   - Portion of unutilized fund is committed to the salaries and wages of Job Orders/COS personnel under this program
   - Research projects implemented by SRA are still on going.

- Research implemented by SUC's, MDDC's, Cooperators, FNRI, PNRI, BSWM, DOST and other research institutions are ongoing

4. **Farm to Mill Roads**
   - Pending submission of utilization report for FY 2020 GAA by DPWH
   - All funds for FMR were directly downloaded to DPWH except for FY 2018 GAA

PROGRESS BY PROGRAM

I. INFRASTRACTURE PROGRAM

The Infrastructure Program under SIDA Project was able to fund and support a total of **174 projects** worth PHP **2,696,610,000.00** in its portfolio as of December 31, 2020. Construction of farm-to-mill roads and bridges were the two main types of subproject under this program.

Table 1 shows the status of FMRs and Bridges as of December 31, 2020 from GAA 2016 to 2020 based on the different stages. Out of the 174 subprojects under this program, 171 of which are farm-to-mill roads (FMRs) and the other 3 were bridges.

For 2016 GAA, 41 FMR projects out of 43 FMRs were already completed and ready for acceptance of the Infrastructure Program Committee (IPC). These completed FMR projects had a total length of 68.453 kilometers. To date, 2 of the 41 completed FMRs were already turned over to the local government unit (LGU).

For 2017 GAA, 38 of the 39 FMR projects were already completed and ready for acceptance of the IPC. The 38 completed FMRs had a length of 29.941 kilometers. And of the 38 completed FMRs, one (1) FMR has already been turned over to the LGU.

For 2018 GAA, of the 46 FMR projects, 44 have been completed with a length of 46.305 kilometers. And out of the 44 completed FMRs, 1 FMR project has been turned over to the respective LGU.

For GAA 2019, aside from the six (6) FMR projects, there are also two (2) Bridges that have been funded. To date, of the 6 FMRs, 5 have been completed with a length of 6.291 kilometers and also the 2 Bridge projects with a length of 43 meters have also been completed.

For GAA 2020, 37 FMR projects and 1 Bridge project have been funded. For the FMR projects, 8 of them are completed with a length of 2.97 kilometers, 28 FMRs are awarded and on-going construction with a total length of 17.78 kilometers and 1 is under pre-implementation stage. And, the only bridge project in GAA 2020 is not yet completed and still on-going construction.

Table 1. Status of Infrastructure Projects as of December 31, 2020

STATUS as of December 2020	GAA													
	2016		2017[a]		2018		2019				2020			
Type of Project	FMR		FMR		FMR		FMR		Bridge		FMR		Bridge	
	No. of Sites	In Kms.	No. of Sites	In Kms.	No. of Sites	In Kms.	No. of Sites	In Kms.	No. of Sites	In Meters	No. of Sites	In Kms.	No. of Sites	In Meters
Pre-implementation stage											1	0.596		
Awarded but construction not yet started											10	4.61		
Awarded but with site modification														
Construction completed	41	68.453	38	29.941	44	46.305	5	6.291	2	43.00	8	2.97		
Completed but with unsatisfactory workmanship (needs repair, etc.)														
Construction still on-going / Not yet completed					1	1.083	1	1.614			18	13.17	1	14.00
Not concreted	1	1.612												
Not implemented due to unresolved Right-Of-Way issue	1	2.120	1	0.702	1	0.252								
Total	**43**	**72.185**	**39**	**30.642**	**46**	**47.640**	**6**	**7.905**	**2**	**43.00**	**37**	**21.345**	**1**	**14.00**

[a] *2017 Bridge Project in Don Pedro was not implemented due to late approval of MOA; This project is funded again in 2019 GAA*

Table 2 . Infrastructure Program Budget Allocation and Utilization Rate

Fund Source	Allocation (Php – Million)	Utilization Rate
2016 GAA	914.4	92%
2017 GAA	557.211	67%
2018 GAA	750	77%
2019 GAA	150	17%
2020 GAA	325	No report yet
Total	**2,696.61**	

The Infrastructure Program under SIDA has a total budget allocation of Php2.69 billion from 2016 to 2020 with budget utilization ranging from 92 percent to 17 percent. The budget utilization of GAA 2016, 2017 and 2019 is based on the submitted financial report of the Department of Public Works and Highways as of March 2020. This is still the latest financial report submitted by DPWH to the SRA. While for GAA 2018 with 77% utilization rate is based on the submitted liquidation report from DPWH as of December 2020.

II. BLOCK FARM PROGRAM

The Block Farm program was launched in 2012 through a partnership agreement between SRA and DAR which focused on the agrarian reform beneficiaries as major participants of the program and was institutionalized through RA 10659 otherwise known as the Sugarcane Industry Development Act of 2015 (SIDA). SIDA mandates to promote the competitiveness of the sugarcane industry and maximize the utilization of sugarcane resources, and improve the incomes of farmers and farm workers, through improved productivity, product diversification, job generation, and increased efficiency of sugar mills.

Table 3. Block Farm Program Accomplishment from 2016 to 2019

	2016	2017	2018	2019	TOTAL
No. of block farms	62	55	45	50	**213**
Area (in hectares	2,472	2,109.10	1,809.52	2,109.15	**8,499.77**
No. of enrollees	1,630	1,573	1,212	1,273	**5,688**

The Sugar Regulatory Administration (SRA) was able to establish a total of 62 block farms, 25 in Luzon and Mindanao, 37 in Visayas with enrollees of 1,630 small sugarcane farmers with a total area of 2,472 hectares during the first year of implementing the program.

As of December 31, 2020, there are 213 organized block farms nationwide, with 5,688 enrollees covering an area of 8,499.77 hectares. Please refer to table 3 above. The incremental increased in terms of the number of block farms accredited, area covered (in hectare) and the number of enrollees from 2016 to 2019 were also shown.

Table 4. Distribution of 213 Block Farms per Congressional District

Region	Province	Mill District	Congressional District	Total Block Farm	Total Enrollee	Total Area (hectare)
II	Cagayan	Carsumco	2nd	2	53	159.3
			3rd	5	130	341.16
	Isabela	Isabela	1st	1	27	55.25
			2nd	1	25	65.92
			6th	1	25	63.64
CAR	Kalinga		Lone	1	20	63.2
III	Pampanga	Pampanga	2nd	2	34	79.8
			3rd	2	46	95.34
	Tarlac	Tarlac	1st	5	97	179.09
			2nd	5	143	214.1
			3rd	2	43	84.5
IV-A	Batangas	Balayan	1st	9	295	433.72
		Don Pedro	1st	8	240	352.37
	Cavite		8th	1	29	30.67
V	Camarines Sur	Pensumil	3rd	6	214	369.61
VI	Antique	Capiz	Lone	1	35	33.908
	Capiz		2nd	4	88	131.492
	Iloilo	Iloilo/Monomer	2nd	5	144	173.17
	Negros Occidental	BISCOM	5th	9	238	294.32
		FF/ Bac-Murcia	3rd	6	180	201.4
		HPCO	3rd	3	80	95.01
		La Carlota	4th	4	123	137.83
		Lopez	2nd	2	118	67.07
		Ma-ao	4th	7	268	241.5
		Sagay Danao	2nd	4	125	133.32
		San Carlos	1st	11	219	361.6
		SONEDCO- Dacongcogon	6th	24	565	794.57
		Victorias	3rd	10	358	336.24
VII	Negros Oriental	Bais-ursumco	2nd	18	372	615.12
		Tolong	3rd	4	69	130.69
	Cebu	Bogo-Medellin	4th	10	218	322.72
VIII	Leyte	Ormoc-Kananga	4th	5	95	165.73
X	Bukidnon	Bukidnon	3rd	13	332	547.72
			4th	3	77	135.34
XI	Davao del Sur	Davao	1st	5	95	165.73
			2nd	4	109	177.52
XII	Cotabato	Cotabato	1st	1	28	60
			3rd	8	241	428.54
Bangsamoro	Maguindanao		2nd	1	31	86.88
12	**19**	**26**	**36**	**213**	**5,688**	**8499.86**

Table 5. GAA SIDA BLOCK FARM FUND UTILIZATION REPORT (As of March 2021)

SIDA GAA Year	Total Approved Budget	Total Disbursement	Unexpended Balances	% of Utilization
2016	324,697,000.00	258,261,000.00	66,436,000.00	80%
2017	299,730,640.00	279,502,000.00	20,498,000.00	93%
2018	250,000,000.00	110,839,000.00	139,161,000.00	44%
2019	300,000,000.00	109,160,000.00	190,840,000.00	36%
TOTAL	1,174,697,000.00	757,762,000.00	416,935,000.00	64.51%

Based on the Statement of Allotment, Obligations, Utilization and Balances (SAOUB) of Sugar Regulatory Administration as of March 31, 2021, SIDA Block Farming Program has a total budget allocation of 1,174,697,000.00 from GAA 2016 to GAA 2019. To date, 64.51% or 757,762,000.00 of the total budget has already utilized/disbursed. Remaining balance of 416,936,000.00 of the program funds is already committed to different Block Farm beneficiaries and COS where MOA's are already signed and some disbursement are still on process.

BLOCK FARM INTERVENTIONS

A. START UP CAPITAL

Start-up capital is a one-time grant funded for production inputs of farms which include but not limited to labor cost, planting materials, fertilizer, soil rehabilitation, soils analysis, land preparation, harvesting and crop insurance. Provided, that start-up funding can be availed only once by a block farm.

Table 6. Amount Utilized as a Start-up Capital

GAA YEAR	TOTAL APPROVED BUDGET	TOTAL DISBURSEMENT
2016	16,465,714.00	16,500,219.00
2017	19,842,198.00	14,592,038.00
2018	13,830,450.00	13,653,750.00
2019	20,224,260.00	19,045,280.00
LUZON MINDANAO	**70,362,622.00**	**63,791,287.00**
2016	46,238,910.00	45,547,896.13
2017	51,922,500.00	48,264,868.99
2018	37,500,000.00	33,703,180.63
2019	49,500,000.00	41,642,039.59
VISAYAS	185,161,410.00	169,157,985.34
TOTAL	**255,524,032.00**	**232,949,272.34**

As of December 31, 2020, a total budget of PHP 255,524,032.00 was approved for the provision of start-up capital for the SIDA Accredited block farms for sugarcane production. A percentage of 91% from the total approved budget was disbursed amounting to PHP 232,949,272.34.

B. FARM MECHANIZATION SUPPORT

Farm mechanization will significantly improve soil aeration, increase farm production and revenue, solves lack of labor manpower issues, reduces cost of production, and is faster and efficient of units and to the beneficiaries.

The SRA has engaged the service of Philippine International Trading Corporation (PITC) as procurement entity for farm mechanization equipment.

Luzon and Mindanao region has a budget amounting to PHP 327,640,000.00 million for the farm machineries in support to sugarcane production and harvesting. Most of the equipment has already been delivered to the beneficiaries, while other equipment is on-going delivery as shown in the table below.

Table 7. Summary of Farm Mechanization Support in Luzon and Mindanao

GAA FUND SOURCE	EQUIPMENT	Total Budget	No. of Units	Amount per Equipment	No. of Units Delivered	Date Delivered
SIDA 2016	Farm Tractors, 120 hp	96,920,000.00	25	73,750,000.00		
	Ripper		**25**	8,750,000.00	25	
	STW Irrigation Set		**12**	2,160,000.00	12	Jun-20
	Fertilizer Applicator		**17**	4,760,000.00		
	Power Harrow		25	7,500,000.00	9	October-December 2020
2017	Sugarcane cutter	81,900,000.00	21	31,500,000.00		
	Sugarcane grabber & loader		21	50,400,000.00	21	November-December 2020
2018	Tractor -90HP with implement	64,900,000.00	11	30,250,000.00	11	Nov-20
	Tractor- 120HP with implements		9	34,650,000.00	2	Nov-December 2020
2019	Tractor -90 HP with implement	83,920,000.00	4	13,120,000.00	4	Nov-20
	Tractor- 120HP with implements		10	46,800,000.00	2	Nov-20
	Hauling truck		5	24,000,000.00	5	Dec-20
TOTAL		**327,640,000.00**	**247**			

A total budget of PHP 383,775,000.00 was allocated for the farm machineries in support to the sugarcane farm production and harvesting in Visayas region. Farm machineries including land preparation implements, sugarcane grab loaders, fertilizer applicators, knapsack sprayers were already delivered to beneficiaries and the remaining units are targeted to be delivered to the respective beneficiaries by 1st quarter of 2021.

Table 8. Summary of Farm Mechanization Support in Visayas

GAA FUND SOURCE	EQUIPMENT	TOTAL BUDGET	NO. OF UNITS	Amount per Equipment	NO. OF UNITS DELIVERED	DATE DELIVERED
2016	Tractor, 90 HP, 37 units	122,725,000.00	37	71,594,427.24		
	Implements, @37 units (furrower, (mouldboard, trailing disc harrow)		37	35,797,213.62	37	Nov. 18, 2020
	Fertilizer applicator, 37 units		37	7,875,376.00	37	Sept. 2020
	Knapsack sprayer, 37 units		37	285,000.00	37	
	STW Irrigation Set					
2017	Wholestalk cutter with tractor, 35 units	93,800,000.00	35	50,793,343.00		
	Sugarcane grabber, 14 units		14	32,507,739.00	14	Dec. 16, 2020
	Knapsack sprayer, 35 units		35	100,000.00	35	
	Others:					
	Working animal, 35 units		35	2,800,000.00		
	Bullcart, 35 units		35			
2018	Tractor, 90 HP, 37 units	78,750,000.00	25	50,000,000.00		
	Implements, @25 sets (Moldboard Plow, Trailind Disc Harrow and Furrower)		25	25,000,000.00		
	Others:					
	1 pick-up, 2 SUV		3	3,750,000.00		
2019	Sugarcane Grabber/Wheeled Excavator	88,500,000.00	30	75,000,000.00		
	Flatbed truck		3	13,500,000.00		
TOTAL		**383,775,000.00**				

C. Collection of Soil Samples and Analysis

Soil samples from sugarcane fields of block farm members were collected using the protocol being implemented by SRA to ensure proper collection and handling. Then the samples were brought to SRA soil analysis facility.

Table 9. Total number of soil sample collected nationwide.

SOIL COLLECTION AND ANALYSIS	VISAYAS	LUZON/ MINDANAO
	No. of Soil Samples Collected*	No. of Soil Samples Collected
GAA 2016	911	802
GAA 2017	715	960
GAA 2018	530	650
GAA 2019	523	
TOTAL	**2,679**	**2,490**

As of March 2020, there are 2, 679 soil samples collected from Visayas region while 2, 490 soil samples were acquired correspondingly in Luzon & Mindanao. A total of 5,169 soil samples were collected from GAA 2016 to 2019 respectively.

D. Irrigation Facilities

Irrigation facilities which include pump sets and accessories were also given to block farms as part of interventions for block farming program and engine. For Block Farms Luzon & Mindanao, a total budget of PHP 2,160,000.00 was allocated in the provision of irrigation sets for the GAA 2016 block farms. For Block Farms of Visayas, additional amount of PHP 15,050,000.00 was allocated for the different block farms of GAA 2016, 2017, 2018 and 2019 respectively.

Table 10. Provision of Irrigation Facilities

GAA Year	Visayas	Luzon&Mindanao
2016	◆ Each of 37 Block Farms received 11Hp pump and engine sets with accessories	◆ 12 Block Farms received 11Hp pump and engine sets with accessories.
		◆ 13 block farms has no source of water for irrigation
2017	◆ 11 block frams received 11Hp pump and engine set with complete accessories.	
	◆ 18 block farms received 11Hp and engine sets with accessories	
	◆ 1 block farm received construction materials for rehabilitation of canal	
	◆ 1 block farm received irrigation conveyance materials	
	◆ 4 block farms has no source of water for irrigation	
2018	◆ 25 block farms received 9Hp pump and engine sets with accessories	
2019	◆ 29 block farms received 12Hp pump and engine sets with accessories	
	◆ 1 block farm received accessories, fittings and conveyance materials.	

A. HYV Nursery and Demo Farm

Block farm program has also allocated budget amounting to PHP 18,953,100.00 for the establishment of HYV nurseries and PHP 3,483,550.00 for demo farms as their source of planting materials.

As of December 2020, a total of 86 HYV nurseries were established under the block farm program of SIDA. 127 of the nurseries are located at block farm Visayas and 16 were established from block farm Luzon & Mindanao.

Table 11. SIDA Established HYV Nurseries and Demo Farm

	Luzon&Mindanao	Visayas	Total
Established Demo Farm	0	37	**37**
Demo Farm Budget Allocation	0	PHP 3,483,550.00	**PHP 3,483,550.00**
Established HYV Nurseries	0	86	**86**
HYV No. of Beneficiaries	0	3,295	3,295
HYV Budget Allocation	0	PHP 18,953,100.00	PHP 18,953,100.00

III. SOCIALIZED CREDIT PROGRAM

The creation Socialized Credit Program (SCP) thru RA 10659 or known as Sugar Industry Development Act (SIDA) of 2015 shall be made available particularly on sugarcane producing regions and provinces for the production inputs including but not limited to labor and hauling services, farm machineries and implements necessary for the continuous production of sugarcane by small sugarcane farmers, block farms, and common service centers providing farm mechanization services to sugarcane farms.

SIDA Socialized Credit Program performance as of December, 2020

Approved Loans (M)	**484.91 million**
Loans In-Process	169.283 million
Total Committed Fund	654.19 million
% Commitment	104.84%
Past Due	8.972 million
Outstanding Balance	291.93 million
Past Due Rate	3.07%

The program fund shall be sources from annual General Appropriations Act (GAA) or 15% of the annual SIDA fund, which will be released by SRA to LBP under the Farm Support and Farm mechanization Programs.

Socialized credit program has a total budget **of 624.697 million** as of December, 2020. No budget has been added in 2018-2020 GA due to observed slow utilization on previous years.

Tabe 12. Summarized Status and Fund Utilization of SIDA Socialized Credit Loans (as of December 2020)

Type of Borrower	Endorsed		Approved		Released		In-process	
	No. of Accounts	Amount (in millions)	No. of Accounts	Amount (in millions)	No. of Accounts	Amount (in millions)	No. of Accounts	Amount (in millions)
Individual Farmer	2,793	500.968	2,508	436.752	2,023	311.763	326	82.528
Block Farms	11	39.33	6	23.31	5	16.83	1	0.955
Service Providers	15	317.02	3	24.848	2	16.68	2	85.8
TOTAL	**2,819**	**857.32**	**2,517**	**484.91**	**2,030**	**345.27**	**329**	**169.283**
Percent of Accomplishment	137 % of total program fund		56.6% of total endorsed 77.6% of total program fund		71.2% of the approved loans 55.3% of total program fund		27.1% of total program fund	

As of December 31, 2020, the total endorsed amount for the Socialized Credit program has exceeded by 37% more from the approved allotment of Php 624 million for the program amounting to Php 857.32 million. Moreover, of the total program budget for Socialized Credit program, 77.6% or Php 484.91 million has been approved and 55.3% or Php345.27 million of the program funds has been released.

71.2% of the approved loan amount has been released as of December 31, 2020. And there is 27.1% of the total program fund which is equivalent to Php169.283 million that are in-process by the LBP.

IV. SCHOLARSHIP PROGRAM

Sugarcane Industry Development Act (SIDA) Scholarship Program, which is part of Human Resources Development, was formulated to benefit the underprivileged but deserving college and post graduate students who are taking up courses in relevant fields of discipline in SUCs which have programs in agriculture, agricultural engineering and mechanics, and chemical engineering/sugar technology; and for vocational courses and skills development for farmers and farm technicians, and skilled workers in sugar mills, sugar refineries, distilleries and biomass power plants.

The scholarship program has an allocation equal to five percent (5%) of the total appropriation/ budget for SIDA per GAA year. The summarized data of beneficiaries under the SIDA Scholarship Grant Program as of December 2020 is shown:

Implementers	No. of On-going Scholars	No. of Graduates
SGP CHED	252	343
SGP SRA	260	26
Total	**512**	**361**

As of the latest data submitted by CHED, there are 343 reported scholars who have graduated from Academic years 2018-2020, whereas there are 252 on going scholars who are still currently enrolled under the Program. Up to date, the SGP SRA has already produced 26 graduates while 260 on going scholars are presently enrolled in the program.

Through the continuous support and assistance of all our Mill District Officers (MDOs), the whereabouts of our SIDA graduates were monitored. Their records showed that some of our SIDA graduates were employed / affiliated in the different government and private sectors:

- *Sugar Mills - BUSCO, CAT*
- *SRA Field/Extension Office – CARSUMCO and Isabela Mill District, LAREC, San Carlos, Victorias Mill District, Ormoc/ Bogo-Medellin/Durano Mill District*
- *SRA Quezon City and Bacolod Office*
- *Agriculture Sector - DA Reg III*
- *Academe - NONESCOST (Sagay), ISCOF (Iloilo), Western Visayas State Univ (Iloilo)*
- *Private Sector - Universal Robina Corporation, Universal Leaf Corporation, Southern Negros Joint Ventures Corp.*

Table 13. Summarized List of Scholars under SIDA SGP-CHED

Region	Province	On-going	Graduates
II	Cagayan	17	29
	Isabela	10	
III	Pampanga	2	20
	Tarlac	4	2
IV-A	Batangas	15	10
	Quezon	1	
V	Camarines Sur	10	16
VI	Capiz		16
	Iloilo	16	21
	Negros Occidental	84	126
VII	Negros Oriental	9	7
	Cebu	5	11
VIII	Leyte	14	6
X	Bukidnon	31	43
XI	Compostela	1	
	Davao del Sur	21	17
XII	Cotabato		4
	Sarangani	12	13
BARMM	Lanao del Sur		1
	Maguindanao		1
11	**20**	**252**	**343**

Table 14. Summarized List of Scholars under SIDA SGP-SRA

Summarized List of Scholars under SIDA SGP-SRA Region	Province	No. of On-going Scholars, AY 2020-2021	No. of Graduates (TOTAL)
II	Cagayan	13	1
	Isabela	8	1
III	Bataan	1	
	Pampanga	9	4
	Tarlac	8	2
IVA	Batangas	15	5
	Cavite	1	1
	Laguna	1	1
V	Camarines Sur	16	2
VI	Capiz	7	
	Iloilo	4	
	Negros Occidental	46	
			7
VII	Cebu	29	
	Negros Oriental	1	
VIII	Biliran	1	
	Leyte	10	
X	Bukidnon	52	
			1
XII	Davao del Sur	17	
XIII	Cotabato	19	1
	Sarangani		
	Sultan Kudarat	1	
BARMM	Lanao del Sur		
	Maguindanao		
NCR	1	1	0
	Paranaque	1	
12	**24**	**260**	**26**
regions	provinces	ongoing	graduates

V. RESEARCH, DEVELOPMENT and EXTENSION PROGRAM

Projects under the Research, Development and Extension (RDE) program of SIDA are clustered as follows: (1) Propagation of High-Yielding Varieties; (2) Variety Improvement; (3) Studies on Pest and Diseases; (4) Soil Fertility Improvement; (5) Upgrading of Soil Laboratories; (6) Irrigation; (7) Capacity Building and (8) Farm Mechanization.

As of December 31, 2020, the Research, Development and Extension Program has notable completed projects that would be a great help to the entire sugarcane industry. Some of these were the following: (1) the publication of planter's guide on sugarcane diseases in the Philippines through the University of the Philippines Los Baños; (2) UPLB has also guided SRA on techniques in identifying the drought and water-logging tolerant varieties of sugarcane; and (3) the SRA has distributed climate-resilient varieties to several mill districts.

Moreover, through the RDE Program, some of our sugarcane farmers were able to receive 55 units of cane cutters, 34 units of cane loaders through the farm mechanization. Finally, different laboratory equipment were donated for the upgrading of 5 MDDC laboratories, 1 planter cooperative and 4 State Universities and Colleges (SUCs).

To further identify the accomplishment and status of each project under the RDE program, please refer to the table shown.

NO.	PROJECT TITLE	DATE STARTED	TARGET COMPLETION DATE	2016-2020				REMARKS
				TOTAL ALLOCATION (GAA)	EXPENDITURE/ RELEASED/CASH ADVANCE (LIQ+UNLIQ)	LIQUIDATED CASH ADVANCE/RELEASED	% UTILIZATION	
VARIETY IMROVEMENT (7)					**57,957,589.34**	**50,117,622.37**		
1	Improvement of the Recommended Sugarcane Varieties using Nuclear Technology and Biotechnology	November, 2016	February, 2020	8,226,273	8,226,273.00	7,595,158.47	100%	Completed last Febuary 2020 - waiting for submission of Audited Financial/Liquidation and Terminal Report
2	Utilization of In-vitro Technology for Conservation and Micro propagation for Quality Seed/Planting Material Production for Sugarcane Variety Improvement and Enhanced Farm Productivity	January, 2017	January, 2022	15,631,067	13,231,124.37	11,079,243.99	85%	
3	Sugarcane Varietal Improvement to Develop High-Yielding and Climate Change Resilient Varieties	March, 2017	March, 2022	11,496,286	10,805,532.81	8,773,898.74	94%	
4	Assessment of Sugarcane Varieties & Germplasm Collection for Drought & Water-logging Tolerance	July, 2017	July, 2021	18,290,477	17,345,723.33	14,659,630.34	95%	
5	National Cooperative Tests of Sugarcane Varieties prior to Commercialization	January, 2017	Continuing	8,811,847	5,918,969.86	5,579,724.86	67%	
6	Sugarcane Seed Farm Project (Fund from Adaptability Trials of Newly- Released Sugarcane Varieties)		Continuing	2,935,000	1,651.61	1,651.61	0%	
7	Marker-Assisted Selection (MAS) of Sugarcane	January, 2018	December, 2019	2,428,315	2,428,314.36	2,428,314.36	100%	Completed on December 2019- Terminal Report forwarded to PPSPD for evaluation and acceptance.
PROPAGATION (3)					**35,098,346.18**	**29,032,298.42**		
8	Rapid Propagation of Sugarcane High-Yielding Varieties in Sugarcane Mill Districts Nationwide	January, 2018	Continuing	44,156,000	32,821,002.68	26,754,954.92	74%	
9	Establishment of Sugarcane Flower Induction Nursery in Negros Occidental	January, 2017	Continuing	325,000	323,344.95	323,344.95	99%	Completed - Terminal Report forwarded to PPSPD for evaluation and acceptance.
10	Renovation of Micropropagation Laboratory	January, 2017	December, 2019	2,229,730	1,953,998.55	1,953,998.55	88%	Completed - Terminal Report forwarded to PPSPD for evaluation and acceptance.

11	Emerging & Re-emerging Diseases of Sugarcane	March, 2017	December, 2020	12,136,556	12,001,056.22	10,828,187.10	99%	Completed on December 2020 - for submission of Terminal Report and Audited Financial Report 3 months after completion of the Project
12	Establishment of Demo-plots to Monitor Leaf Scald Disease of Sugarcane	May, 2017	September, 2019	3,100,000	3,100,000.00	2,118,333.40	100%	Completed on September 2019 - waiting for submission of Audited Financial/Liquidation.
13	Post-Entry Quarantine and Disease Indexing of Introduced Varieties of Sugarcane	August, 2017	August, 2022	12,279,700	10,783,350.00	4,393,500.00	88%	
14	Quick Response to Sugarcane Pests and Diseases	January, 2018	Continuing	10,719,625	2,533,825.00	2,533,825.00	24%	
15	Rehabilitation of SRA-LGAREC Trichogramma Laboratory	January, 2018	2020	5,600,000	4,597,581.47	4,597,581.47	82%	Completed on December 2020 - for submission of Terminal Report
SOIL FERTILITY IMPROVEMENT (5)					**51,358,242.22**	**49,399,909.70**		
16	Soil Characterization of the Sugarcane Mill Districts in the Philippines	August, 2017	April, 2021	5,902,768	4,702,768.00	3,595,981.22	80%	
UPGRADING THE SOILS LAB								
	LUZON-MINDANAO							
17	Davao MDDC		2020	315,000	236,145.00	236,145.00	75%	
18	Isabela State University -Cabagan	November, 2018	March, 2021	5,000,000	1,976,656.00	1,476,656.00	40%	
19	Upgrading the Soils Laboratory of Bukidnon MDDC	June, 2018	December, 2020	3,926,226	3,150,688.02	3,150,688.02	80%	Completed on December 2020 - for submission of Terminal Report
	VISAYAS including Jalasig and San Carlos		2021		41,291,985.20	40,940,439.46	87%	
20	LGAREC & SUCs (VSU, CPSU, CapSU)	November, 2016-LGAREC August, 2016-SUC's	2020	47,642,000				
	First Farmers MDDC							
	Lopez MDDC							
IRRIGATION (4)					**3,534,895.00**	**2,793,906.94**		
21	Water Management Through Drip Irrigation in the Sugarcane Mill Districts including LGAREC			2,372,100	-	0	0%	26,000,000.00 were originally allocated for the Project but since the movement is slow, funds were Rebudgeted for 2020 and distributed to other Projects for additional funding.
22	Rehabilitation of the Irrigation Water System & Greenhouse of LAREC-Pampanga in Support to R,D & E		2020	5,000,000	-	0	0%	
23	Rehabilitation of the Irrigation Water System of LGAREC in Support to R,D & E		2020	5,000,000	-	0	0%	
24	Nutrient & Water Management for SRA Block Farms Towards Technical & Economic Viability	May, 2018	May, 2021	4,829,895	3,534,895.00	2,793,906.94	73%	

CAPABILITY BUILDING (4)					**14,997,403.51**	**11,697,403.51**		
25	Capacity Building of Sugarcane Farmers, Workers & SRA Research & Extension Personnel	January, 2017	December, 2019	8,391,534	8,325,443.27	8,325,443.27	99%	Completed - waiting for submission of Terminal Report
26	Extension Training on Sugar Technology	July, 2017	July, 2019	2,360,145	2,359,634.95	2,359,634.95	100%	Completed - Terminal Report forwarded to PPSPD for evaluation and acceptance
27	Participation in the 30th Session of ICUMSA	June, 2016	Continuing	1,012,326	1,012,325.29	1,012,325.29	100%	
28	Enhancing SRA's Capacity to Evaluate the Technological & Economic Performance of the Sugarcane Industry		2020	3,300,000	3,300,000.00	0	100%	For possible acquisition through countertrade according to PITC
FARM MECHANIZATION (5)					**182,339,607.46**	**1,504,607.46**		
29	Mechanization of SRA-LGAREC Nursery (Mechanization of UPLB's Nursery)		2020	3,500,000	-	0	0%	
30	Design/Fabrication of Farm Mechanization Machineries, Equipment and Implements & Acquisition of Prototypes for Testing		2020	55,014,700	55,014,700.19	532,700.19	100%	
31	Performance Trials & Evaluation of Various Sugarcane Harvesting Machineries in the Various Sugarcane Mill Districts		2020	126,353,000	126,353,000.00	0	100%	
32	HYV Nursery & Farm Machinery Support at the LGAREC-Negros Occidental Experiment Station		2020	5,283,925	971,907.27	971,907.27	18%	
33	Development of Standards of sugarcane production & harvesting farm machineries., equipment & implements			0	-	0	* Parked as new proposal for 2021	
OTHERS (12)					**22,817,860.78**	**18,037,300.73**		
34	Analysis of Sugarcane Supply/Value Chain in some Major Sugarcane Producing Provinces in the Philippines	March, 2017	July, 2019	4,773,025	4,773,025.21	1,992,465.16	100%	Completed on July 2019 - submitted Terminal Report thru email on Oct. 24 still waiting for submission of Audited Financial/Liquidation Report
35	Characterization of HFCS & Comparative Effects of Cane Sugar & HFCS in Blood Glucose & Lipid Profile of Sprague-Dawley Rats	October, 2018	March, 2021	2,000,000	2,000,000.00	0	100%	
36	Establishment of Organic Fertilizer Facility in Cotabato Mill District	December, 2018	March, 2020	1,200,000	1,200,000.00	1,200,000.00	100%	Completed - Terminal Report forwarded to PPSPD for evaluation and acceptance
37	Harmonization of Sugar Mill Laboratory Analytical Facilities	May, 2018	2021	500,000	52,255.00	52,255.00	10%	

38	Alternative Method of Conducting Physical Sugar Inventories	2018	2020	10,500,000	10,500,000.00	10,500,000.00	100%	Completed - Terminal Report forwarded to PPSPD for evaluation and acceptance
39	Accelerated Technology Transfer of Sugarcane Farming Technologies *(includes distribution of COVID PPE to Farmers)*		Continuing	2,279,612	2,279,611.50	2,279,611.50	100%	
40	Accelerated Technology Transfer Program (ATTP)	June, 2017	Continuing	3,356,869	2,012,969.07	2,012,969.07	60%	
41	Development, Packaging & Delivery of Farm Management Information System for Major Sugarcane Mill District			0	0	0	0%	Projects DROPPPED BY PHILSURIN
42	Enhancing Sugarcane Varieties for Prolonged Ratooning, Productivity & Profitability			0	-	0	0%	
43	Development of Sugarcane Varieties for for Low InputFarms			0	-	0	0%	
44	Development of Site-Specific Soil management & Fertilizer Requirement Guide			0	-	0	0%	
45	Corelation, Study on Polarization & Sucrose			0	-	0	0%	
			TOTAL	**468,179,000**	**401,119,757.18**	**187,054,476.10**	**86%**	

REGULATION DEPARTMENT
LUZON/MINDANAO

In 2020, the Regulation Department (RD) faced the challenges and difficult times due to Pandemic which caused lockdowns, less mobility for people and travel restrictions. As a result, there was the implementation of work skeletal force and work from home (WFH) schedule in the agency considering the health, safety and welfare of both work force of RD as well as stakeholders who in the same way were affected with the uncertain situation. Although the workforce was lessened following the skeletal system and WFH, the day to day operations of the Department still continued and it was able to carry on through the "new normal" situation while following health protocols.

Since the start of the lockdown and community quarantine, traders who were performing essential functions were provided a Certification which allowed them to facilitate sugar distribution and consumption within the National Capital Region (NCR) and nearby provinces in order to have a steady supply of sugar as well as for business transaction purposes. This is to ensure that food like sugar was made available, affordable and sufficient on the table of every Filipino household, especially during the Covid 19 crisis.

This year also marks the accommodation of online application and payments for the processing and issuances of certificates, clearances, laboratory test certificates, shipping permits, among others paid thru Landbank. This allowed stakeholders to transact business with SRA using the internet to ensure that all concerns are accommodated accordingly following social distancing in order to minimize the health risk of COVID 19.

As part of the DA monitoring of food and food products in response to Covid 19, the implementation of digitization and geotagging of Sugar warehouses of traders using the Geotagging Camera application through celphone mobile data commenced on June 1, 2020.

Meanwhile, in spite of the minimized workforce at the height of the pandemic, sugar transactions in mills and refineries went on. However, sugar withdrawals were recorded slow, in mills and refineries due to minimized/closure of operations in manufacturing firms/business establishments and presence of workforce was also lessened.

For one, monitored withdrawal of refined sugar during September 27, 2020 weekending was down from 318,310 LKg bags to 245,321 LKg bags on weekending October 4, 2020; lower by 22%. On the same period, raw sugar withdrawal posted at 18,910MT which slowly picked up to 39,396 MT.

As for the Millsite Price of "B" sugar, it started at P1,530.00 during the start of CY 2019-2020. Towards the last day of the milling operations millsite price was at P1,410.00./Lkg bag.

In compliance to the Anti-Red Tape Authority issuances on permits and licenses, RD has back tracked all Frontline Services and corresponding legal basis and revised the Citizen Charter considering simplified steps, procedures and requirements.

More revisions on the services, processes and requirements are to be done for **submission to ARTA in early next year to go along with the "new normal" set up**.

Before the year comes to a close, there were twin recognitions for the Environmental Laboratory on proficiency testing provided by the Environmental Research Associates (ERA) designed to evaluate laboratory sustainability and performance against other participating laboratories throughout the world on the same set of parameters.

The laboratory was given a Certificate of Recognition by ERA for completing Proficiency Testing Round 309 and achieving acceptable evaluation for the following analytes: Color, BOD, and COD.

The Environmental Laboratory was also recognized for DENR-EMB Recognized Environmental Laboratories in compliance with the documentation, analytical performance, and other technical requirements of DENR

Administrative Order No. 63, Series of 1998: Guidelines for the Designation of DENR Recognized Environmental Laboratories. The following parameters are the scope of recognition for water and wastewater: Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), True Color, Dissolved Oxygen (DO), Oil and Grease, pH, Temperature, Total Suspended Solids (TSS), and recently added ones such as: Nitrate as Nitrogen (NO_3-N); and for stationary source emission: Nitrogen Oxides (NOx), Particulates, and Sulfur Oxides (SOx).

To complete the regulatory functions of RD with respective significant accomplishments of the Department namely; Licensing and Monitoring Division (LMD), Sugar Transaction Division (STD), Sugar Regulation and Enforcement Division (SRED) and Laboratory Services Division covering the Calendar Year (CY) are the following:

LICENSE TO OPERATE (LTO) AS TRADER/MILL/REFINERY

The LMD issued 45 LTO as Sugar/Molasses/Fructose Traders covering Crop Year (CY) 2019-2020 (starting from January to August of 2020) to provide the opportunity to do trading business. The breakdown of which are as follows:

22 Domestic Sugar Traders Molasses
4 International Sugar Traders
13 Domestic Molasses
4 International Molasses
2 Fructose
6 Warehouse Registration Certificates were issued

During the last three (3) Calendar Years, the initial breakdown for the year 2020 and the total breakdown of issued LTO during the last two years are as follows:

LICENSE TYPE	2020	2019	2018
	TOTAL	TOTAL	TOTAL
DOMESTIC SUGAR	136	138	145
INTERNATIONAL SUGAR	61	69	53
DOMESTIC MOLASSES	73	72	70
INTERNATIONAL MOLASSES	28	30	20
HFCS	29	36	26
MUSCOVADO	6	12	9
TOTAL	333	357	323

Meanwhile, beginning CY 2020-2021 (from September to December 2020), the initial issuances of LTO released to traders are the following:

114 Domestic Sugar Traders
57 International Sugar Traders
27 Fructose
60 Domestic Molasses Traders
24 International
6 Muscovado Traders with a total of **289** issued LTO as trader
5 Bioethanol Producers
4 Warehouse Registration
28 Mills and **12** refineries were issued milling and refining license for business operations during Crop Year 2020-2021

OFFICE AND WAREHOUSE INSPECTION of new trader applicants were still conducted in Metro Manila and nearby provinces. However, for the trader applicants in Mindanao, the inspections were conducted by Mindanao Regulation Officers (ROs) whose assigned areas are near the area of inspection.

COLLECTIONS FOR LTO AS TRADER AND MILL/REFINERY

MILLS	2019-2020	P106,850.00
	2020-2021	P126,250.00
LTO as Trader Total Collections for 2020	P4,151,000.00	
CY 2019-2020	P4,315,000.00	

SUGAR PRODUCTION AND MILLSITE PRICES OF SUGAR AND MOLASSES MONITORING Weekly sugar production monitoring thru SMS Report was done to check sugar supply situation in mills and refineries including analysis of Raw & Refined Sugar and Molasses production, stock balance, withdrawals, Tons Cane Milled, Average and Prevailing Wholesale and Retail Prices of Sugar in Metro Manila, Average and Prevailing Sugar Prices in Metro Manila per city/municipality and Millsite Sugar and Molasses Prices Report for Production Bulletin, summary and analysis of sugar/molasses millsite price report of all the weekendings during the whole CY.

Final Refined Sugar Production of the same CY posted at 16,790,857 Lkg bags a little higher than last CY 2018-2019 production at 16,543,757 while Refined Sugar Withdrawals was at 14,722,595 LKg bags from last CY's 15,510,362 Lkg bags; a difference of 787,767 Lkg bags.

Recorded final actual Tons Cane Milled for CY 2019-2020 was at 23,299,178 LKg TC as compared to last CY's 21,767,659 LKg TC. This means that more canes were harvested in the compared to the previous CY.

On the other hand, the final Molasses Production of raw and refined molasses was at 1,133,978.642 MT against last CY's 1,031,021.019MT with an ending stock balance of 201,141.249 MT. The last bidded price for molasses was at P12,400.00 per ton during weekending of July 26, 2020 when it also terminated milling operations.

Imported Molasses from licensed International molasses traders were also monitored to ensure that all trading transactions are not diverted to bioethanol production.

SUGAR PRICES MONITORING IN METRO MANILA. Wet market price monitoring/inspection was conducted in 10 Metro Manila areas namely: Quezon City, Marikina, Malabon, Manila, Pasig, Caloocan, Mandaluyong, Makati, Pasay, and Las Piñas. 13 wet markets and 105 groceries/supermarkets within the mentioned cities were monitored to check price stability and supply availability.

The LMD Monitoring Team supported the DA Monitoring, Inspection and Enforcement activities of Bantay Presyo Task Force in a number of wet markets in MM, among these are: Guadalupe Wet Market, Pasay, Cartimar, Quinta, Blumentrit, San Andres, Paco, Muñoz, Mega Q-Mart, Kalentong, Las Piñas, Malabon, Polo Market in Valenzuela and Muntinlupa Public Market

Initially, stores monitored with above retail prices are advised to follow the SRP (P50.00 for refined and P45.00 for brown sugar) per kilo and requested to explain the reason for having high sugar prices.

Average and Prevailing Sugar Prices in Metro Manila, both Retail and Wholesale prices in groceries and supermarkets starting September 2019 up to August of 2020 and from September 2020 to December 2020 are shown below;

GROCERIES AND SUPERMARKETS AVERAGE AND PREVAILING SUGAR PRICES IN METRO MANILA												
RETAIL PRICE Per 1 Kilo Bag												
DATE	RAW				WASHED				REFINED			
	Average	Prevailing	High	Low	Average	Prevailing	High	Low	Average	Prevailing	High	Low
2019-2020												
September	49.83	45.00	59.50	43.00	52.28	49.00	62.90	44.00	56.81	50.00	68.60	49.50
October	49.60	45.00	59.50	42.00	51.94	49.00	62.90	44.00	56.39	50.00	65.75	49.50
November	49.20	45.00	59.50	42.00	51.67	49.00	62.90	44.00	55.84	50.00	65.75	49.00
December	48.78	45.00	59.50	42.00	51.61	49.00	61.25	44.00	55.63	50.00	65.75	49.00
January	48.40	45.00	59.50	42.00	51.35	49.00	61.25	44.00	54.40	50.00	65.75	49.00
February	48.20	45.00	57.50	42.45	51.28	49.00	61.10	44.00	55.29	50.00	65.75	49.00
March	48.05	45.00	57.50	42.75	51.20	49.00	62.00	44.00	55.02	50.00	80.00	49.00
April	47.32	45.00	50.00	40.00	50.37	49.00	62.00	42.00	54.32	50.00	65.75	49.00
May	47.44	45.00	57.50	40.00	50.52	49.00	61.10	42.00	54.38	50.00	65.75	49.95
June	48.04	45.00	57.50	42.75	51.32	49.00	61.10	44.00	55.00	50.00	65.75	49.00
July	47.98	45.00	57.50	42.75	51.29	49.00	61.10	44.00	54.97	50.00	65.75	49.00
August	47.91	45.00	56.50	43.00	51.28	49.00	61.10	44.00	54.96	50.00	65.75	49.00
2020-2021												
September	47.61	45.00	56.50	42.50	51.02	49.00	61.10	43.50	54.71	50.00	65.75	49.00
October	47.05	45.00	56.50	42.50	50.49	49.00	57.25	43.50	54.15	50.00	64.50	49.00
November	47.20	45.00	56.50	42.50	50.57	48.50	57.25	43.50	54.39	50.00	64.50	50.00
December	46.82	45.00	56.50	41.07	50.48	48.50	57.25	43.40	54.07	50.00	64.00	50.00

AVERAGE AND PREVAILING SUGAR PRICES IN METRO MANILA												
WHOLESALE PRICE Per 50 Kilo Bag												
DATE	RAW				WASHED				REFINED			
	Average	Prevailing	High	Low	Average	Prevailing	High	Low	Average	Prevailing	High	Low
2019-2020												
September	1,687.75	1,700.00	1,780.00	1,620.00	1,822.19	1,800.00	1,900.00	1,720.00	2,293.25	2,300.00	2,350.00	2,000.00
October	1,688.67	1,700.00	1,780.00	1,630.00	1,822.50	1,850.00	1,900.00	1,770.00	2,278.00	2,300.00	2,350.00	2,180.00
November	1,670.00	1,600.00	1,750.00	1,600.00	1,785.63	1,850.00	1,880.00	1,700.00	2,183.50	2,200.00	2,250.00	2,100.00
December	1,670.00	1,650.00	1,750.00	1,600.00	1,776.25	1,725.00	1,850.00	1,700.00	2,176.00	2,200.00	2,200.00	2,100.00
January	1,711.78	1,710.00	1,800.00	1,600.00	1,810.97	1,850.00	1,950.00	1,700.00	2,221.11	2,200.00	2,300.00	2,100.00
February	1,731.71	1,710.00	1,820.00	1,650.00	1,810.71	1,850.00	1,870.00	1,750.00	2,262.57	2,250.00	2,300.00	2,200.00
March	1,731.00	1,700.00	1,780.00	1,695.00	1,825.00	1,850.00	1,870.00	1,780.00	2,284.00	2,270.00	2,300.00	2,270.00
April	1,709.17	1,700.00	1,780.00	1,600.00	1,820.83	1,850.00	1,870.00	1,780.00	2,270.00	2,270.00	2,200.00	2,200.00
May	1,770.83	1,700.00	1,880.00	1,660.00	1,849.31	1,900.00	2,000.00	1,750.00	2,260.69	2,300.00	2,350.00	2,180.00
June	1,736.11	1,700.00	1,850.00	1,660.00	1,856.67	1,880.00	1,900.00	1,750.00	2,244.86	2,250.00	2,300.00	2,180.00
July	1,744.50	1,700.00	1,900.00	1,650.00	1,893.61	1,850.00	2,050.00	1,840.00	2,224.21	2,250.00	2,300.00	2,100.00
August	1,736.39	1,700.00	1,850.00	1,650.00	1,885.45	1,850.00	2,000.00	1,800.00	2,201.11	2,250.00	2,300.00	2,000.00
2020-2021												
September	1,741.33	1,700.00	1,850.00	1,650.00	1,862.57	1,850.00	1,970.00	1,750.00	2,151.45	2,200.00	2,250.00	2,000.00
October	1,706.94	1,700.00	1,850.00	1,600.00	1,855.36	1,800.00	1,970.00	1,800.00	2,121.95	2,150.00	2,250.00	2,020.00
November	1,695.28	1,700.00	1,850.00	1,600.00	1,852.86	1,800.00	1,950.00	1,780.00	2,118.61	2,100.00	2,200.00	2,020.00
December	1,700.89	1,700.00	1,850.00	1,600.00	1,852.00	1,900.00	1,950.00	1,750.00	2,152.44	2,200.00	2,300.00	2,020.00

SUGAR STOCK INVENTORIES were conducted at food processors' warehouses in different parts of the country during the early part of the year. However, the conduct of the inventory in Mindanao was cut short due to confirmed cases of corona virus in the country with the possibility of implementing lock downs considering the health and safety of the Monitoring Personnel.

During the year, random sugar inventory were continued in Metro Manila and nearby provinces to check available stocks of food processors and the remaining sugar stocks available from Sugar Order No. 5 of the Second Sugar Import Program of CY 2018-2019.

CUSTOMS BONDED WAREHOUSE (CBW)/FOOD PROCESSORS/ EXPORTERS' SUGAR ALLOCATION Total imported sugar allocation monitored for Food Processors/exporters/CBWs was **60,455 MT** which is 5% lower than last year's **63,570 MT**. Withdrawals recorded for this year was at **59,183.83** MT which is 2.7% higher than last year's **57,609.70** MT. A total of **432** Clearances of Imported Sugar were issued to CBW/Food Processors and Sugar Importers under Sugar Order # 5 Series of 2019-2020 with an earning of **P26,204,993.50** for the agency.

Withdrawn imported sugar from the BOC were also monitored and checked if properly liquidated since all these were to be used in the manufacturing of food products intended for export.

STD AND SRED ISSUANCE OF CLEARANCES, CERTIFICATES, SUGAR RELEASE ORDER (SRO) AND SHIPPING PERMITS (SP) WITH CORRESPONDING VOLUME AND EARNINGS

53	Certificates of Origin (P1,102,442.87)
52	Certificates Quota of Eligibility (CQE) for sugar to enter in the United States (US)
262	Certificates of Verified "A" export sugar
394	Certificates of Exchange Authority (CEA) (P3,386,960.00)
788	Letters to Mills as indicated in the CEA will allow the holder to withdraw the quantity presented in the clearance.
51,227	verified quedan-permits portions and **45,907** quedan shipped and issued **272** Withdrawal Clearances,
206	Inloading Clearances, **56** Outloading Clearances, and **56** "A' US Sugar Export Clearances with a total volume of **109,408.00 MT (P5,470,420.00)** to ensure the timely filling-up of US quota for CY 2019-2020.
272	Acknowledgment Receipt of the detached quedan portions to be returned to the exporters while the detached permit portions shall be kept for SRA's monitoring and safekeeping
2,652	Premix Commodity Release Clearance **(P10,250,244.85)**
Imported Sugar Release for CBW/Food Processors/Sugar Import Program **(P26,204,993.50/69,322,887)**	
91	Certificates of Sugar Requirements **(P170,000.00)**
181	High Fructose Corn Syrup (HFCS)/ Chemically High Fructose Clearances **(7,589.88 MT/P266,155.14)**
97	Imported Molasses Clearances **(565,147.85 MT/P254,339,074.50)**
186	Muscovado Export Clearances ***(2,935.46 MT/P89,320.00)***
249,500	Quedans raw/refined and molasses certificates were attested by Regulation Officers (ROs) in Luzon and Mindanao
1,323	Sugar Release Orders from Luzon and Mindanao mills verified/certified.
376	Shipping permits issued in Luzon and Mindanao **(P1,919,178.00)**

PHYSICAL SUGAR STOCK, MOLASSES AND QUEDAN INVENTORY. The SRED conducted and verified physical sugar, molasses stock inventory in the mills and refineries and reconciling the same with the quedans that are still outstanding. Nine (9) mills and six (6) refineries in the Luzon/Mindanao area were inventoried for physical sugar and molasses stock. Prior to the start of the milling season and as part of SRA's requirements 42 weighing scales in the mills of URC-SURE, Pensumil, Central Azucarera Don Pedro, URC-SURE Balayan, Central Azucarera de Tarlac, Crystal Sugar Mill, Cotabato Sugar Mill, Cosuceco Sugar Mill, Busco Sugar Mill, Davao Sugar Mill were calibrated with the presence of mill, planter and SRA representatives which all affixed their signature on the SRA Seal and affixed on each of the weighing scales for security purposes as well. Calibration is done as an assurance of integrity and accuracy of the mill scales.

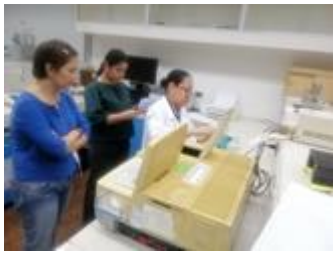
BURNING/SHREDDING OF SUGAR QUEDANS was also done with field Regulation Officers as witnesses after the end of milling activities.

GEO-TAGGED WAREHOUSES A total of **62** Geo –Tagging activities of warehouses storage facility of sugar mill and various sugar/molasses traders in Cotabato, Bukidnon, Tarlac, Pampanga, Bulacan and Batangas areas were done by SRED ROs since it commenced on June 1, 2020. Stated in the geo-tagged pictures are the warehouse's capacity, latitude, longtitude and the actual number of raw and refined sugar stocks available in the warehouses during the time it was monitored and geotagged. On the part of the LMD Monitoring Team, **105** warehouses of SRA Registered Stakeholders in the Areas of Luzon and Mindanao have been geo-tagged.

COLLECTION OF LIENS ROs assigned in the field collected a total of P76,339,494.27 in terms of liens and monitoring fees for sugar and bioethanol.

LABORATORY SERVICES DIVISION

Sugar Reference Service. The Sugar Laboratory received and analysed 206 raw sugar samples; 139 were weekly composite from sugar mills analyzed for polarization, moisture, ash, color, sulfur dioxide and dextran. Of the 139 weekly composite samples, 20% of these have parameters which failed the Philippine National Standard for Raw Sugar (PNS/ BAFS 81:2018). Provision of analytical results on the mills' raw sugar polarization for Bureau of Internal Revenue (BIR) was also done in compliance to BIR Revenue Resolution No. 8 of 2015.



Thirty one (31) molasses were received and analyzed. A total of **250** samples were analyzed and 389 test certificates were issued for Sugar Reference Service.

Integrated Laboratory Services. Received and analysed **213** white sugar samples; **169** of which were biweekly composite from refineries. 100% of the biweekly white sugar composite samples submitted by the refineries passed the quality and safety requirements of the Philippine National Standard for **White Sugar** (PNS/BAFS 82:2018) for the routinely analyzed parameters such as **polarization, moisture content, ash, color, reducing sugars and sulfite. 38 special samples from various walk in clients were also analyzed. 6** were support analysis for regulations. 226 test certificates were issued by the Integrated Laboratory Services.

Premixes Commodity Services. 22 premixes, concentrates and other food products were sampled and analyzed. **Of the 22 samples, 59% had below 65% sucrose content while the sucrose content of the rest were not detectable (40.91%). No sample had over 65% sucrose content while** 22 test certificates were issued.

All in all, 36 clients were served by the Sugar Laboratory.

Harmonization of Sugar Mill Laboratory Analytical Facilities was done thru the SIDA project in order to align the analytical procedures and methods of the SRA Sugar Laboratories and sugar mill and refinery laboratories. To check on the uniformity of methods, audits and meetings have already been conducted in the SRA Laboratories and the laboratories of Central Azucarera de Tarlac, Luisita Refinery and Hawaiian Phil, Company.

Succeeding audits were scheduled in the sugar mills in Bukidnon but were not done due to travel and quarantine.

Calibration and Verification of Laboratory Equipment were also done following the laboratory's Calibration Plan as scheduled.

Extension Support Services. Knowledge / Expertise Sharing

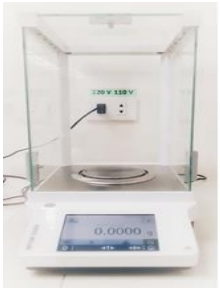
Technical Assistance through Referrals and Consultations (Special Assignments and Intervening Activities) were done in the following occasions serving as a member/resource person of Technical Working Groups (TWG) and/or Committees:

- DA Food Safety Focal Group (Meetings on Jan 23, 2020, Feb. 26, 2020, June 18,2020, August 2, 2020, Sept.2, 2020, Sept. 30, 2020, Nov. 11, 2020)
- National CODEX Organization Technical Committee (Meetings on January 23, 2020, August 14, 2020, Sept. 16, 2020)
- Quality Assurance Committee/PSMA (meeting on July 10, 2020 and December 17, 2020 re SIDA Project on Harmonization of Laboratories and Chemistry Law compliance of Mill Laboratories)
- Resource Person/Panelist, 2020 Food Safety Awareness Week Forum, ***Chikahan sa Hapag Kainan: A Food***

Safety Forum, The Laboratory Component on Oct. 29, 2020 Via Facebook Live through the initiative of the DA Food Safety Focal Group.

ENVIRONMENTAL LABORATORY received and analyzed 1,137 air emission samples, **23** wastewater giving the agency total earnings of P520,0000.00 from the analysis, and issued **175** test certificates. Among the stakeholders that were given services were CAT, CADPI, URC PASSI, Lopez Sugar,First farmers Holding Corporation ,Sagay Sugar Central , and a private client , GEES Solution Services Inc.

To further improve services to its stakeholders, the laboratory has acquired Mettler Toledo ME204T Standard Analytical Balance for standard weighing, Mettler Toledo Seven Compact pH/Ion ISE Meter S220 for pH and Nitrates Selective Electrode analysis, and YSI CR 3200 Thermal Reactor for COD Closed Reflux analysis. The laboratory is very particular in shifting its method from COD Open Reflux to Closed Reflux since the latter has less environmental impact in terms of toxic and waste generation. The laboratory has also procured Atomic Absorption Spectrophotometer (AAS) for heavy metals analysis in wastewater and is currently awaiting delivery.



WASTE MANAGEMENT PROGRAM

Since 2007, the SRA Environmental Laboratory has been a DENR-registered hazardous waste generator. To further improve its waste management program for this year, our PCOs have accomplished the following:

- *Produced SRA Hazardous Waste Management Guidelines for approval and/or revision;*
- *Assisted in the preparation of SRA Emergency Response, Organizational Structure (specifically for Hazardous Material/ Chemical Management Team);*
- *Submitted requirements for Air Pollution Source Installation (APSI) permit as required by DENR-EMB for power generators and chemical fume hoods;*
- *Collected and segregated the following non-electronic measuring devices such as thermometers and barometers that contain liquid mercury and stored properly in SRA QC's hazardous waste storage area. Since in accordance with DAO 2019-20 "Revised Chemical Control Order (CCO) for Mercury and Mercury Compounds", it states that non electronic devices containing liquid mercury should be replaced with non-mercury alternative, since its manufacture, importation and use shall be phased out by 2020;*
- *Monthly monitoring of Hazardous waste and laboratory chemical storage;*
- *Quarterly submission of SMR;*
- *Submission of requirements for New Managing Head including certificate of completion of 8-hour Environmental Management Training for Managing Heads.*

MANPOWER CAPABILITY

As part of RO's and Laboratory personnel's continuous improvement prior and during the pandemic and implementation of lockdowns, participation to various seminar workshops/webinars to further increase awareness and knowledge as well as to become competitive in their respective field of expertise were pushed through.

Among these include as focal person for Soils Laboratory for Luzon and Mindanao Seminar on Spectroscopy sponsored by BSWM. BAFS Food Safety Seminar, SRA-NEDA Muscovado Sugar Webinar, and BAFS- Pesticide Residue in Crops, Equipment Maintenance, Fundamentals of Remote Auditing, Ethical Leadership, Introduction to ISO 31000 Risk Management, Prolific Productivity in the Public Sector During the Pandemic, participated in the series of meetings on

DA Harmonization of Terms and Streamlining of Requirements and Procedures in Authorization and Businesses Under the Regulatory Jurisdiction of DA, Workshop for FAO Food Safety Indicator Pilot Project and Webinar Workshops like World Health Organization Webinar "EPI-WIN COVID 19: How to Ensure and Maintain Food Supply and How to Protect Workers in Food Industry and at Retail, "Introduction to Powder X-ray Diffraction", "Fundamentals of Pipetting by Thermoscientific", E-learning of the European Union Rapid Alert System for Food and Feed, Refresher on HPLC Skills and Gain Practical Knowledge on longer lasting LC Columns by Agilent and DKSH, "Revolutionizing Food Authenticity with Next Generation Sequencing", Joint FAO, OIE, WFP, WHO Webinar for Asia and the Pacific on Food Safety in the "New Normal", **ISO/IEC 17025:2017 for DA FSRAs conducted by the Food Development Center, Good Laboratory Practices in Chemical Laboratory conducted by the Food Development Center, United States Regulatory Policies on Food Safety and Inspection Procedures, Emotional Wellness Mastery Program Webinar,** 4th National Conference of Chemical Laboratories, among others.

REGULATION DEPARTMENT
VISAYAS

Executive Summary

The Regulation Department covered 19 raw sugar mills, 7 refineries, 6 bio-ethanol plants, 5 Cebu-based CBWs/Food Processing Plants, 2 bulk terminal loading ports for international shipments, all ports where sugar are loaded for inter-island shipping, all international/domestic sugar and molasses traders operating and transacting in the Visayas.

Per approved SRA Organizational Strengthening, the Department is now composed of 3 divisions: Sugar Regulation & Enforcement Division, the Licensing and Monitoring Division and the Laboratory Services Division. However, it also performs Sugar Transaction functions as an extension of the Division.

The following are the accomplishments per division:

I. SUGAR REGULATION & ENFORCEMENT DIVISION

Table I. Summary of Production, Withdrawals and Stock Balances of Visayas Mills (Fiscal Year

	2020	2019	%Inc(Dec)
Production			
Raw sugar (MT)	1,591,973.00	1,358,141.00	17.22
Refined Sugar (LKg)	11,501,508.00	10,429,790.00	10.28
Molasses (MT)	861,410.79	707,305.26	21.79
Withdrawals			
Raw sugar (MT)	1,561,906.00	1,425,630.00	9.56
Refined Sugar (LKg)	10,835,296.00	10,159,434.00	6.65
Molasses (MT)	735,534.06	582,581.71	26.25
Stock Balance			
Raw sugar (MT)	283,099.00	252,596.00	12.08
Refined Sugar (LKg)	2,811,134.00	2,144,922.00	31.06
Molasses (MT)	125,876.74	124,723.55	0.92

Raw sugar, Refined sugar and Molasses production for the year 2020 increased at a certain rate. Raw sugar production increased by 17.22%, refined sugar was also up by 10.28% and the molasses production increased by 21.79%. Raw sugar, Refined sugar and Molasses withdrawals also increased by 9.56%, 6.65% and 26.25%, respectively.

The following table presents the other activities and accomplishments of SRED:

Table II. Summary of Accomplishments			
	2020	**2019**	**%Inc(Dec)**
Raw Sugar Quedans	246,016	265,271	-7.26
Refined Sugar Quedans	845	843	0.24
Molasses Certificates	208,558	205,071	1.7
Raw SRO	3,717	3,746	-0.77
Refined SRO	684	944	-27.54
Scales Calibrated	336	309	8.74
SMS Reports	6,178	6,896	-10.41
Samples Collected:			
Sugar	537	587	-8.52
Molasses	8	26	-69.23
Warehouses:			
Inventoried	47	72	-34.72
Inspection Conducted	770	891	-13.58
Molasses Tanks:			
Inventoried	46	40	15
Inspection Conducted	965	969	-0.41

Raw sugar quedans decreased by 7.26%. This was due to several factors; the decrease in sugar production and the implementation of Sugar Order No. 1 series of 2020-2021 that eliminates "D" Sugar in the classification. It has stated therein the allocation of the following sugar classes; "A" – 7%; "B" – 93%. Refined sugar quedan and Molasses Certificates also increased by 0.24% and 1.70% respectively. This was attributed to the continued implementation of block quedanning.

There is a decrease in the total number of warehouse inventoried by 13.58% during end of milling inventory for the crop year 2019-2020. This is for the reason that some warehouses were emptied earlier due increased withdrawals of stocks. Molasses tanks inventoried increased due to subsidiaries employed by certain mills. Meanwhile warehouse and molasses tank inspections decreased in frequency by 13.58% and 0.41% due to limitations set forth by quarantine restrictions enforced by local government in lieu of the COVID-19 pandemic.

Income Generated

The income generated for Fiscal Year 2020 increased by 1.03% as compared to the previous year. This is due to the marked increase in the collection of monitoring fee for Raw sugar. Despite the slight increase in the overall collection, there is a significant decrease of 52.64% and 55.00% in the collection of Bioethanol Monitoring Fee and the BRDE Lien, respectively. This may be attributed to the delayed receipt of the Official Bioethanol Production and Sales Report from the Department of Energy which is the primary reference for the issuance of billing statements for the said fees.

The following details summarize the collection report of the Department for the Fiscal year 2020:

Table III. Summary of Accomplishments		
Accounts Title	**2020**	**2019**
Stabilization Fee	24,606,052.60	22,553,674.79
Special Milling Fee	2,460,577.15	2,301,642.86
Milling Permit Fee	12,450,534.21	11,366,074.32
Mon. Fee, Raw to Refine	24,779,843.22	21,524,120.00
Mon. Fee, Raw	62,412,664.28	57,050,808.91
Mon. Fee, Bioethanol	3,059,234.25	6,459,990.30
Extension fee (Disposition of sugar from Warehouses)		29,784.00
Monitoring Fee, Bioethanol Trust Fund	5,813,551.05	12,919,980.60
Total	**135,582,456.76**	**134,206,075.78**

II. LICENSING & MONITORING DIVISION

Licensing and Monitoring Division-Visayas (LMD-Vis) collected Php 37,616,658.82 as shipping permit fees from the 24,149,359.22 Lkg.-bags covering 18,411 shipping permits issued.

The inter-island shipments had 22 destinations and were issued permits by the Bacolod City Office and satellite offices in Cebu, Iloilo, Dumaguete and Ormoc Cities. Table IV tells us that the most number of shipping permits were issued by the SRA-Bacolod office.

Table IV. Shipping Permit Issuance in the Visayas

SHIPPING PERMIT ISSUANCE		2020	2019	% Inc (Dec)
a.	Negros Occidental	14,916	14,540	2.59
b.	Cebu	317	537	-40.97
c.	Panay	1,458	1,447	0.76
d.	Dumaguete	1,597	1,413	13.02
e.	Leyte	123	129	-4.65
	Total	**18,411**	**18,066**	**1.91**

There was a 1.91% increase in the number of shipping permit issuances from the Visayas. Despite the overall increase in shipping permit issuances, there has been a marked decrease issuances of the Cebu satellite office which may be due to the restrictions set forth by the COVID-19 pandemic which classified Cebu City as a high risk area. The sugar shipments were in the following forms:

The 18,411 shipping permits processed for the year covered a total of 24,149,359.22 Lkg-bags which is 6.76% higher than the volume issued with permits last 2019.

Table V. Kinds of Sugar Shipped in the Visayas

Kinds of Sugar Shipped (Lkg bags)	2020	2019	% Inc (Dec)
Raw	14,228,656.74	13,256,131.91	7.34
Refined	9,811,232.20	9,249,581.40	6.07
Others	109,470.28	114,092.92	-4.05
Total	**24,149,359.22**	**22,619,806.23**	**6.76**

The destinations, vis-à-vis the volumes were as follows:

Figure 1. Raw Sugar Shipment per Destination

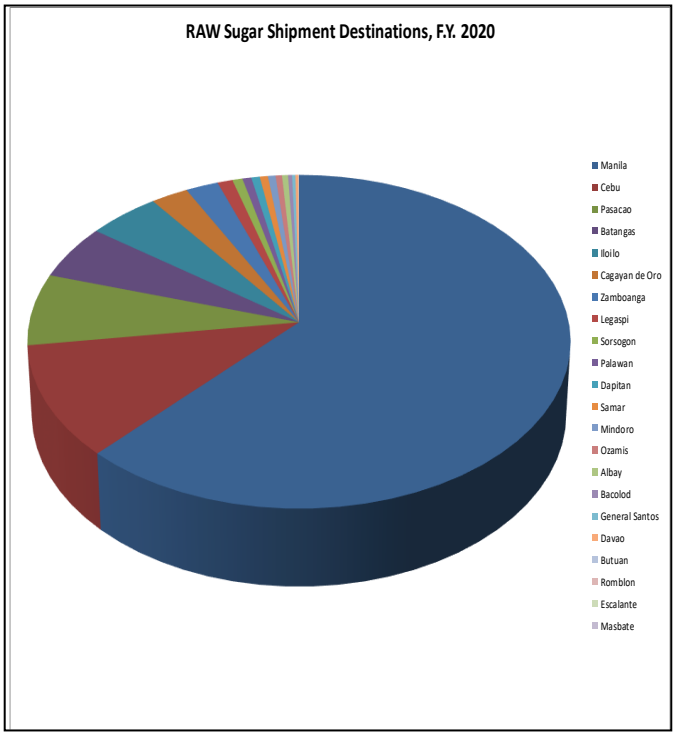


Table VI. RAW SUGAR
SUMMARY OF SUGAR SHIPPED PER DESTINATION
FISCAL YEAR 2020

Destination	Volume (in Lkg. Bags)	Percentage
Manila	8,819,960.58	61.99%
Cebu	1,537,935.98	10.81%
Pasacao	992,913.00	6.98%
Batangas	759,463.27	5.34%
Iloilo	681,283.00	4.79%
Cagayan de Oro	352,600.00	2.48%
Zamboanga	309,719.00	2.18%
Legaspi	143,600.00	1.01%
Sorsogon	96,200.00	0.68%
Palawan	84,436.00	0.59%
Dapitan	80,550.00	0.57%
Samar	76,850.00	0.54%
Mindoro	71,985.00	0.51%
Ozamis	60,800.00	0.43%
Albay	57,000.00	0.40%
Bacolod	38,010.91	0.27%
General Santos	31,200.00	0.22%
Davao	28,000.00	0.20%
Butuan	2,000.00	0.01%
Romblon	1,650.00	0.01%
Escalante	1,500.00	0.01%
Masbate	1,000.00	0.01%
TOTAL :	**14,228,656.74**	**100.00%**

Figure 2. Refined Sugar Shipment per Destination

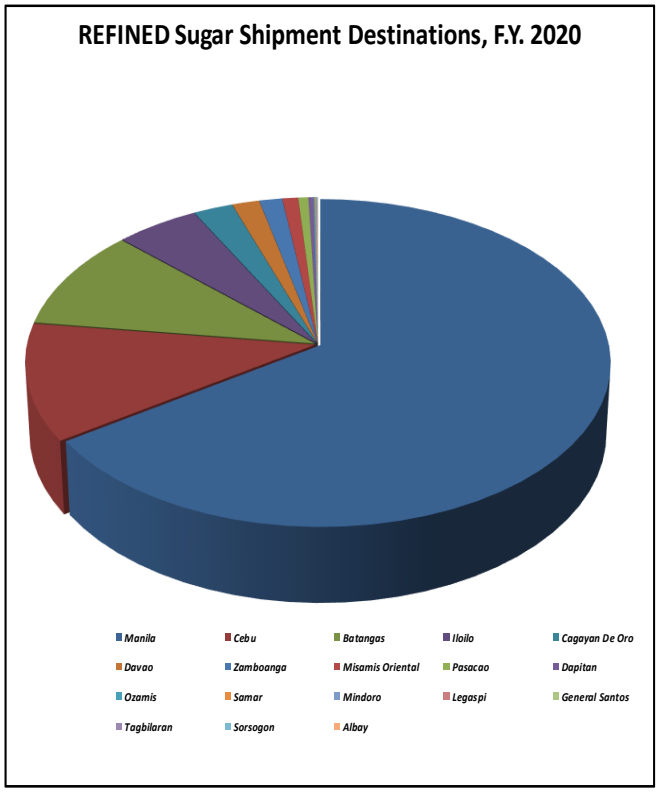


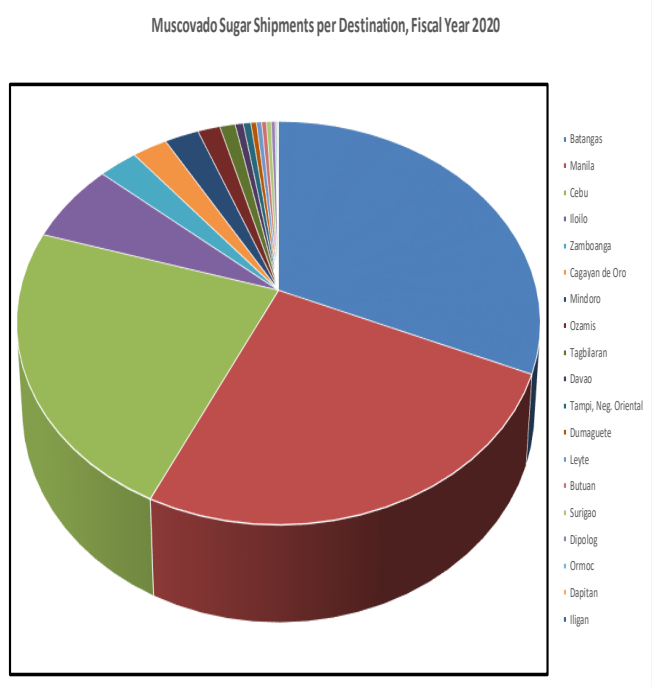
Table VII. REFINED SUGAR
SUMMARY OF SUGAR SHIPPED PER DESTINATION
FISCAL YEAR 2020

Destination	Volume (in Lkg. Bags)	Percentage
Manila	6,434,570.00	65.58%
Cebu	1,132,376.00	11.54%
Batangas	978,762.00	9.98%
Iloilo	506,430.20	5.16%
Cagayan De Oro	240,900.00	2.46%
Davao	165,120.00	1.68%
Zamboanga	138,844.00	1.42%
Misamis Oriental	95,680.00	0.98%
Pasacao	61,400.00	0.63%
Dapitan	30,150.00	0.31%
Ozamis	8,800.00	0.09%
Samar	6,000.00	0.06%
Mindoro	5,500.00	0.06%
Legaspi	2,000.00	0.02%
General Santos	2,000.00	0.02%
Tagbilaran	1,200.00	0.01%
Sorsogon	1,000.00	0.01%
Albay	500.00	0.01%
TOTAL :	**9,811,232.20**	**100%**

Table VIII. MUSCOVADO SUGAR SUMMARY OF SUGAR SHIPPED PER DESTINATION FISCAL YEAR 2020

	Volume (in Lkg. Bags)	Percentage
Batangas	34,541.09	31.55%
Manila	27,805.33	25.40%
Cebu	25,013.31	22.85%
Iloilo	7,208.55	6.58%
Zamboanga	3,046.00	2.78%
Cagayan de Oro	2,755.00	2.52%
Mindoro	2,700.00	2.47%
Ozamis	1,758.00	1.61%
Tagbilaran	1,220.00	1.11%
Davao	640.00	0.58%
Tampi, Neg. Oriental	600.00	0.27%
Dumaguete	439.00	0.40%
Leyte	415.00	0.38%
Butuan	378.00	0.35%
Surigao	370.00	0.34%
Dipolog	311.00	0.28%
Ormoc	110.00	0.10%
Dapitan	100.00	0.09%
Iligan	60.00	0.05%
TOTAL:	**109,470.28**	**100%**

Figure 3. Muscovado Sugar Shipment per Destination



For 2020, LMD-Visayas generated Php 39,730,819.20, in revenues, the bulk of which were from the issuance of shipping permits:

Table IX. Summary of Collection

Accounts	2020	2019	% Inc (Dec)
Milling License Fee	36,050.00	43,250.00	-16.65
Registration Fee-Traders	1,955,000.00	2,294,000.00	-14.78
Shipping Permit Fees	37,616,658.82	35,286,151.55	6.6
Clearance Fee-Export of Sugar	5,110.38	27,005.15	-81.08
Registration Fee-Muscovado Converter	102,000.00	114,000.00	-10.53
Registration Fee-Bioethanol Manufacturer/Producer	8,000.00	2,000.00	300
Registration Fee-Warehouse	8,000.00	2,000.00	300
Total	**39,730,819.20**	**37,768,406.70**	**5.2**

Table X. Other LMD Activities

Other LMD Activities	2020	2019	% Inc (Dec)
Shipping Permits Issued	18,411	18,066	1.91
Volume Covered, Lkg	24,149,359.22	22,619,806.23	6.76
Traders Registered	164	183	-10.38
CBWs	5	5	-
Imported Sugar Inspected/Released,Lkg	226,500.00	206,500.00	9.69

Of the 164 traders registered, 84 were purely for domestic sugar trading and 19 were domestic and international, 39 were purely for domestic molasses trading and 5 were domestic and international and 17 were for muscovado trading. For registration of traders, LMD-Visayas collected a total of Php 1,955,0000.00 as fees.

	Highlights of LMD- Visayas' Activities for FISCAL YEAR 2020:
1	Processed / Facilitated issuance of 164 licenses to various traders (sugar, molasses and muscovado) amounting to Php 1,955,0(
2	Issued 18,411 shipping permits to various shippers/traders amounting to Php 37,616,658.82.
3	Monitored sugar exports at different loading ports:
	"A" Sugar 78458.786 MT
4	Verified export documents of CBWs with documents issued by Bureau of Customs.
5	Monitored 226,500.000 MT imported molasses shipments at bulk terminals.
6	Monitored sugar and molasses bided-prices in Visayas area.
7	Monitored weekly retail and wholesale prices of sugar and muscovado among wet markets and supermarkets
8	Inspected 22 Offices/Warehouses of Trader Applicants for Geotagging.
9	Facilitated processing of 8 milling permits of sugar mills, 2 refining permits of refineries and 4 bioethanol plant registrations.
10	Conferred with CBW Processing Plants representatives regarding submission of utilization reports, warehouse stock inventory ledgers and other documents pertaining to their product for export.
11	Monitored/inspected imported sugar arrivals and releases for CBWs.

Highlights of LMD- Visayas' Activities for FISCAL YEAR 2020:

1. Processed / Facilitated issuance of 164 licenses to various traders (sugar, molasses and muscovado) amounting to Php 1,955,000.00.
    a. Issued 18,411 shipping permits to various shippers/traders amounting to Php 37,616,658.82.

2. Monitored sugar exports at different loading ports:

    "A" Sugar - 78,458.786 MT

3. Verified export documents of CBWs with documents issued by Bureau of Customs.
4. Monitored 226,500.000 MT imported molasses shipments at bulk terminals.
5. Monitored sugar and molasses bided-prices in Visayas area.
6. Monitored weekly retail and wholesale prices of sugar and muscovado among wet markets and supermarkets
7. Inspected 22 Offices/Warehouses of Trader Applicants for Geotagging.
8. Facilitated processing of 8 milling permits of sugar mills, 2 refining permits of refineries and 4 bioethanol plant registrations.
9. Conferred with CBW Processing Plants representatives regarding submission of utilization reports, warehouse stock inventory ledgers and other documents pertaining to their product for export.
10. Monitored/inspected imported sugar arrivals and releases for CBWs.

III. SUGAR TRANSACTIONS

The income generated performing Sugar Transactions totaled, Php 5,595,964.33, which is significantly higher than 2019's collection. A big part of the increase in collections came from Clearance Fees for Imported Molasses received in Bacolod Office. The details are shown in Table XI.

Table XI. Summary of Collection

Account Title	2020	2019
Regular Swapping	162,996.63	247,376.73
Revalidation fee on sugar	475	1,235.00
Fines & Penalties-Stop Lift Order		9,931.15
Extension Fee for new Deadline of Shipment /Commitment	30,662.70	114,966.90
Clearance Fee – Muscovado Converters	480	
Clerance Fee – Imported Molasses	5,401,350.00	
Subtotal	**5,595,964.33**	**373,509.78**

For 2020, a total of 54 applications for various transactions were accommodated and completed by the Sugar Transaction Division. The 7 Regular Swapping transactions translated to the 7 Certificates of Exchange Authorities issued to various traders and stakeholders. There is also a significant increase in the number of transactions for Revalidation of Quedans although the Lkg-bags covered is lesser compared to 2019.

Table XII. Summary of Accomplishments

	2020		2019	
	No. of Transactions	Lkg Bags Covered	No. of Transactions	Lkg Bags Covered
Reinstatement of Homeless Quedans	2	21.57	0	0
Revalidation of Quedans	39	13,018.38	7	16,290.03
Regular Swapping			32	252,482.89
Certificate of Exchange Authorities Issued	7	98,300.19	28	163,773.55
Verification of "A" Quedans	6	4,627.21	0	0

IV. LABORATORY SERVICES DIVISION

The Laboratory Services provide and deliver quality control and timely laboratory services to sugar mills in the Visayas in weekly basis and quarterly basis on molasses sample. Provide assistance to the walk-in clients such as Sugar and Molasses Trader, Millers, Surveyors, Distillers in their sample analysis, Planters and Researchers on their cane juice analysis by laboratory test reports/data information and reportorial requirements.

SUGAR REFERENCE LABORATORY

A. Accomplishment

The table below shows sample received and analyzed.

Table XIII. Laboratory Services Annual Report
(January to December 2020)

Program/Activities	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
Samples received and analyzed					
RAW SUGAR					
a. Mills	175	218	39	132	564
b. Traders/walk-in clients	20	12	147	1	180
MOLASSES					
a. Mills	10	13	13	5	41
b. Traders/walk-in clients	40	27	49	110	226
MUSCOVADO	3	0	6	4	13
CANE JUICE and OTHERS	2	0	0	2	4
Total Samples	**250**	**270**	**256**	**254**	**1,028**

The above services were undertaken pursuant to our objectives to encourage good manufacturing practices, to ensure competitiveness and acceptability to our sugars in domestic and export market; and to determine compliance of all sugar factories to Memorandum Circular No. 2 Series of new sets of standard for Raw Cane Sugar (PNS/BAFS 81:2018).

Revenues generated from these technical services for sugar and molasses traders/millers, distillers, amounted to ***Six hundred eighty eight thousand and two hundred pesos (PhP 688,200.00).***

As for analyses fees from the weekly composite sugar samples of the sugar mills and quarterly molasses sample from mills in the amount of ***One million three hundred twenty-one thousand and fifty pesos (PhP 1,321,050.00)***

The following were the regular clients served:

1	CENTRAL AZUCARERA DE BAIS, INC.	10	HIDECO SUGAR MILLING CO., INC.
2	BISCOM, INC.	11	LOPEZ SUGAR CORP.
3	BOGO-MILLING CO., INC.	12	OPTION- MULTI PURPOSE COOPERATIVE
4	CENTRAL AZUCARERA DE LA CARLOTA, INC.	13	SAGAY CENTRAL INC.
5	CAPIZ SUGAR CENTRAL INC.	14	URC-SONEDCO
6	CENTRAL AZUCARERA DE SAN ANTONIO, INC.	15	URC SURE-PASSI
7	FIRST FARMERS HOLDING CORP.	16	URC SURE-TOLONG
8	HAWAIIAN-PHILIPPINE CO.	17	URC SURE-URSUMCO
9	HDJ BAYAWAN AGRI-VENTURE CORP.	18	VICTORIAS MILLING CO

***MOLASSES* traders/ distillers, walk-in clients served:**

1	ALL ASIAN BIOETHANOL CORP.	7	TANDUAY DISTILLERS, INC.
2	ASIAN ALCOHOL CORP.	8	TAO COMMODITY
3	BALAYAN DISTILLERY INC.	9	TRADE LINK MARINE SERVICES & SURVEY CO.
4	PROGREEN AGRI CORP., INC.	10	URC-PASSI
5	SAN CARLOS BIOENERGY, INC.	11	VMC DISTILLERS PLANT
6	SCHUURMANS & VAN GINNEKEN PHIL. (SVG)	12	ZEUS ORGANIC AND AGRICULTURAL PRODUCTS, INC.

***RAW SUGAR*, walk-in clients served:**

1	ALL ASIAN COUNTERTRADE, INC.	4	ORO ALLADO COMMODITIES, INC.
2	COMMTRADES, INC.	5	SEAWISE MARITIME & SERVICES, INC.
3	DELMAX CORP.	6	SUCDEN PHILS. INC.

***MUSCOVADO SUGAR*, walk-in clients served:**

1	GAVIN'S GENERAL MERCHANDISING	4	RAW BROWN SUGAR MILLING CO., INC.
2	NEGROS PRAWN	5	REY MARK DIAZ-Technological University of the Philippines
3	OPTION-MPC		

B. **Technical Services Rendered**

1. January 31, 2020 – Performed parallel testing in SRA Laboratory with three (3) Chemical Technicians: ***Maria Cossette Vecino, Victoria Irisary & Donna Baule*** from Victorias Milling Co. on different parameters in raw sugar and molasses analyses.

2. February 10 & 11, 2020 - Responded to five (5) Medical students from University of Saint La Salle in handling spectrophotometer in their study, ***Effect of WIFI on the Growth Curves of Staphylococus Aureus, Escherichia Coli and Pseudomonas Aeruginosa.***

3. March 04, 2020 – Responded to the request of Bacolod Taytung High School students: ***Christian Edray Lacson, Adrian Suplico and Louis Ematong*** in their Work Immersion in SRA Laboratory.

4. August 18, 2020- Responded to the request of Hawaiian Phil. Co. on Hands-On Training of Chemical Technicians: ***Julie Mendoza*** and ***Marycris Deocadiz*** in Molasses Analysis.

5. October 22, 2020 – Responded to the request of First Farmers Holding Corp. on Hands-On Training of five (5) Chemical Technicians: ***Mary Jane Ignao***, ***Jessel Talavera***, ***Romelie Condez, Apple Apawan*** and ***Seth Dominic Blanco*** on Molasses Analysis.

6. ***Janet Dilag*** and ***Janet Belleza*** conducted audit in different mills QA/QC laboratories. The general objective of the said activity is to find measures in solving discrepancies on analyses' results between SRA Laboratory and the respective in-house laboratory, specifically in Polarization and Color determination. Recommendations were sent back to the respective laboratory.

   6.1 July 29-30, 2020 -***HAWAIIAN PHILIPPINE-CO.***
   6.2 August 11-12, 2020 -***FIRST FARMERS HOLDING CORP.***

   a. November 10-15, 2020 -***URC-SONEDCO***
   b. November 25, 2020 -***BISCOM***
   c. December 9-10, 2020 -***URC SURE-LA CARLOTA***

C. Conferences, Seminars Trainings Attended:

1. March 06, 2020 - Janet Dilag, Janet Belleza, Leza Andrea Espera, Stella Marie Nogal, Jake Winston Gerolaga and Febe Galeno participated in seminar " Hazardous Waste Management and Updated Regulatory Guidance for Laboratories given by Integrated Chemist of the Phil., Bacolod Chapter.
2. October to December, 2020- scheduled Webinars on Production, Processing, Packaging, Labeling, and Marketing of Muscovado Sugar were attended by laboratory personnel.

ENVIRONMENTAL LABORATORY

A. Laboratory Analysis of Flue Gas Emissions from Sugar Mill Boilers and Gensets

Particulate Matter (PM) and Carbon Monoxide (CO) content determinations were conducted in the laboratory in samples obtained from boiler and genset flue gas emissions of twelve (12) mills, namely, URC-Sonedco; URC-Passi; First Farmers Holding Corp.; Victorias Milling Company; VMC-Distillery; Central Azucarera de San Antonio; Sagay Central, Inc.; OPTION-MPC; Lopez Sugar Corporation; BISCOM, Inc.; URC Distillery; and Hawaiian-Philippine Company. Details are as follows:

- 234 samples analyzed for Particulate Matter
- 162 samples analyzed for Carbon Monoxide
- 93 Certificates of Analysis generated, approved, and issued

B. Laboratory Analysis of Wastewater Samples generated by Sugar Mills

A total of thirty-seven (37) wastewater samples obtained from four (4) sugar mills, namely, First Farmers Holding Corporation; Sagay Central, Inc.; Lopez Sugar Corporation and OPTION-MPC were analyzed for 5-day Biological Oxygen Demand and Total Suspended Solids.

C. Environmental Laboratory Recognition by the DENR

For laboratories performing analysis of environmental samples, it is a mandatory requirement to be recognized as an environmental laboratory by the Department of Environmental and Natural Resources in accordance with DENR Administrative Order (DAO) No. 63 s. 1998 *Guidelines for the Designation of DENR Recognized Environmental Laboratories*.

Upon completion of the requirements stated in the aforesaid DAO, the Environmental Laboratory Services submitted its application on August 30, 2020. The laboratory inspection and assessment was conducted by the DENR-EMB LIAT Team on September 8-9, 2020. LIAT findings include six (6) Non-Compliance Reports and nine (9) Recommendation Reports. Prior the final assessment, the laboratory was given until December 2020, three (3) months to be exact, to act on the non-compliances and recommendations.

Table XV. Personnel Complement of the Regulation Department– Visayas

(as of Dec. 31, 2020)

Name	Position	Station
Office of the Manager		
Vacant	Manager III	Bacolod Office
Vacant	Secretary I	Bacolod Office
Licensing and Monitoring Division		
Vacant	Chief SPRO	Bacolod Office
Wilfredo R. Monares	OIC, Chief SPRO-LMD & SRED/Supervising SPRO	Bacolod Office
Roy Ronel R. Era	Sr. SPRO	Cebu Office
Vacant	Sr. SPRO	
Ivy C. Cababasay	SPRO III	URC-Passi
Merlene M. Lobrido	SPRO III	Bacolod Office / CACI
Joenel N. Elbanbuena	SPRO III	Hawaiian
Jose Genaro B. Parroco	SPRO III	Victorias
Milagros C. Sira	SPRO III	Iloilo Office
Paterno C. Tabaniera Jr.	SPRO III	Dumaguete Office
Vacant	SPRO II	
Marichu J. Claver	SPRO II	Bacolod Office
Vacant	SPRO II	
Vacant	SPRO II	
Vacant	SPRO II	
Vacant	SPRO II	
Vacant	SPRO II	
Vacant	SPRO II	
Myra Ann F. Magsipoc	Clerk III	Bacolod Office
Sugar Regulation & Enforcement Division		
Vacant	Chief SPRO	Bacolod Office
Vacant	Supervising SPRO	
Vacant	Supervising SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Jose Wilson V. Lamig	Sr. SPRO	Bacolod Office
Cecil P. Tuazon	Sr. SPRO	URC-Tolong / HDJ Bayawan
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	
Vacant	Sr. SPRO	

Maricris A. Rojo	SPRO III	First Farmers
Romeo S. Ombi-on	SPRO III	BISCOM
Berwin L. Buenconsejo	SPRO II	Bacolod Office/URC-Sonedco
Vacant	SPRO II	
Vacant	SPRO II	
Jerry C. Celo	SPRO II	URC-URSUMCO
Locelle T. Roquillas	SPRO II	BOMEDCO/HISUMCO
Vacant	SPRO II	
Chrisgel L. Auñgon	Clerk III	Bacolod Office/URC-La Carlota
Laboratory Services Division		
Vacant	Chemist V	Bacolod Office
Vacant	Chemist IV	Bacolod Office
Vacant	Chemist III	Bacolod Office
Vacant	Chemist III	Bacolod Office
Janet A. Belleza	Chemist II	Bacolod Office
Vacant	Chemist II	Bacolod Office
Vacant	Laboratory Technician II	Bacolod Office
Vacant	Clerk III	Bacolod Office
Vacant	Science Aide	Bacolod Office
Temporarily detailed to Regulation Dept.-Visayas		
Janet C. Dilag	OIC, Laboratory Services / Science Research Specialist II	Bacolod Office
Elias R. Pangantihon	Agriculturist II	Lopez / Sagay / Option
Febe L. Galeno	Laboratory Technician II – Soils Laboratory	Bacolod Office
Joselito D. Casiano	Science Aide-Soils Laboratory	Bacolod Office

Table XVI. Job Order Personnel (as of December 31, 2020)

Name	Position	Place of Assignment/Division
Arlaine Michelle M. Arevalo	SPRO I - SRED	HISUMCO
Dareen D. Banaglorioso	SPRO I - SRED	Bacolod Office
Kherly Mae S. Baterna	SPRO I -LMD	Dumaguete Office
Raphael John P. Bautista	SPRO I -LMD	URC-Sonedco
Ted Freilan N. Bantad	SPRO I -LMD	Bacolod Office
Jean Arlene A. Ledesma	Clerk - SRED	Bacolod Office
Doroteo S. Liba	SPRO I -LMD	Bacolod Office
Glenn Paul G. Libosada	SPRO I -LMD	Bacolod Office
Maria Faith C. Moreño	SPRO I -LMD	Bacolod Office
Mark Anthony L. Nelmar	SPRO I -LMD	Bacolod Office
Sharmaine C. Pineda	SPRO I -LMD	Bacolod Office
Ma. Lounie B. Maranan	SPRO I -LMD	Capiz
Regina T. Valencia	SPRO I -LMD	Bacolod Office

Keeshia Rose A. Nacion	SPRO I – SRED	Bacolod Office
Mary Angel Rose H. Aspera	SPRO I – SRED	Bacolod Office
Daphne C. Valenzona	Clerk – LMD	Cebu Office
Elizabeth C. Celestial	SPRO I -SRED	URC-Passi
Enrico G. Sobremisana Jr.	SPRO I - SRED	Bacolod City
Stella Marie C. Nogal	Chemist-Lab. Services	Bacolod Office
Leza Andrea A. Espera	Chemist-Lab. Services	Bacolod Office
Kelvin O. Espine	Chemical Technician-EnviLab	Bacolod Office
Winston Jake C. Gerolaga	Chemist-Lab. Services	
Henry E. Candelacion	Laboratory Aide – EnviLab	Bacolod Office

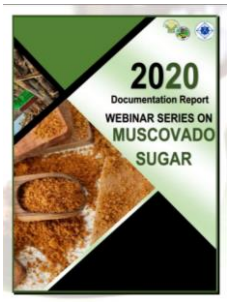
Table XVII. Separated/Retired/ Transferred Personnel
(as of December 31, 2020)

Name	Position	Remarks
Mary Antoinette S. Tampo	Manager III	Retired (January 2020)
Leonida D. Banjao	Science Research Specialist II	Returned to RDE (October 2020)
Aniano C. Chavez	Agriculturist II	Retired (November 2020)
Francisco C. Banlaygas	Agriculturist II	Retired (April 2020)

TRAININGS AND CONFERENCES 2020

SRA-NEDA MUSCOVADO WEBINAR SERIES

The Muscovado webinar series was actualized by Sugar Regulatory Administration in partnership with RDC-NEDA RO6 and other participating government agencies: Department of Agriculture (DA), Department of Science and Technology(DOST), Department of Trade and Industry(DTI) etc., the Provincial Agriculture Offices and the Municipal Agriculture Offices, Local Government Units, State Universities and Colleges (SUCs), and Private Sectors in Western Visayas. The webinar series was conducted for eight days starting on October 28 until December 14, 2020. Aside from facilitating this event, several personnel of the Regulation Department-Visayas were tapped as resource speakers for various topics.



Remarks:

All other trainings and conferences planned for the year 2020 were cancelled and budgetary allocations were realigned for strengthening of service delivery amid the COVID-19 Pandemic.

LUZON AGRICULTURAL RESEARCH CENTER (LAREC)

Highlights of Accomplishment

PROJECTS/STUDIES IMPLEMENTED:

Thirty (30) projects including the breeding stages were implemented of which 11 were completed, 11 are on-going and 8 were new/laid-out.

- On ***Smut Resistance trial of Phil 2014 series clones***, 27 clones were rated very highly resistant to intermediate average. Very highly resistant to smut are Phil 14-0727, Phil14-0703, Phil 14-0723, Phil 14-0085, Phil 14-0729, Phil14-0679, Phil 14-0459, Phil 14-0475, Phil 14-0389 and Phil 14-0395. These clones are recommended to undergo testing for downy mildew resistance.
- On ***Downy Mildew Resistance trial of Phil 2013 series clones***, eight clones were rated very highly resistant namely, Phil 13-1495, Phil 13-1319, Phil 13-0287,Phil 13-1585, Phil 13-0279, Phil 13-0771, Phil 13-1627 and Phil 13-1667 while the two clones, Phil 13-1619 and Phil 13-1599 were rated highly resistant. Further verification of the clones' resistance may be observed in the agronomic tests.

- On the ***Growth and yield performance of Phil Phil 2009-1867 and Phil 2009-1969 under different densities of planting,*** tonnage (TC/Ha) and sugar yield (Lkg/Ha) were significantly highest using 4.5 and 5.0 lacsas of canepooints. Highest ROI of 0.76 and 0.75 were obtained from Phil 2009-1867 and Phil 2009-1969, respectively, at planting density of 4.5 lacsas per hectare.

- On the ***Growth and yield performance of Phil Phil 2010-0107 under different densities of planting,*** cane tonnage (TC/Ha) was significantly highest at 4.0 and 5.0 lacsas while sugar yield was significantly highest at 4.0 lacsas. Sucrose content (Lkg/TC) did not vary significantly under different level of densities of planting. Highest net income and ROI of 143,283.62 and 0.95, respectively, were obtained when 4.0 lacsas per hectare were used. Thus, highest sugar yield and profit for Phil 2010-017 can be obtained using 4.0 lacsas of canepoints.

- On the ***Yield Potential Assessment of Phil Phil 2009-1867 and Phil 2009-1969 at different seasons of planting,*** tonnage, sugar yield, stalk length, and diameter of both varieties were significantly higher in the early- and middle-season. Likewise, stalk weight and millable stalk count were highest when planted early in the season. On the other hand, sucrose content was found to be significantly highest when planted late. Highest sugar yield and ROI of 0.73 for Phil 2009-1867 and 0.76 for Phil 2009-1969 were obtained at middle- season planting. Thus, for highest sugar yield and profits these varieties should be planted in the middle- season.

- On the ***Yield Potential Assessment of Phil Phil 2010-0107 at different seasons of planting,*** stalk length, weight, diameter and millable stalk count and sugar yield were comparable in all seasons of planting. Cane tonnage of 104.44 TC/Ha was significantly highest when planted early while sucrose content of 2.34 LKg/TC was highest when planted late. Highest ROI of 0.72 for Phil 2010-107 was obtained when planted in the early- season. Thus, Phil 2010-0107 is most suited for early-season planting

- On the **Influence of de-topping on cane and sugar yield of Phil 2006-2289 and Phil 2006-1899**

  Phil 2006-1899 produced significantly higher cane (TC/Ha) and sugar (LKg/Ha) yield than Phil 2006-2289. TC/Ha was significantly highest when the test varieties were milled zero(0) days after de-topping. Milling at 0, 2, 4, 6 days after de-topping produced highest sucrose content (LKg/TC) while LKg/Ha was highest when milled at 0,2,4, days after de-topping. Highest sugar yield and profit for Phil 2006-2289 and Phil 2006-1899 were obtained when milled two (2) days after detopping. For highest sugar yield and profit, the two varieties should be milled two (2) days after detopping.

- On ***Tiller induction methods for wet season planting,*** germination was highest from 30 cm bud- to- bud spacing (T4) while cutting of primary tillers at emergence (T1) resulted to significantly highest average tiller per stool and millable stalks but also produced the shortest, thinnest and lightest stalks.

  Weight which is a function of length and diameter was observed to be significantly heaviest at 1.59 kg when 2/3 N & 1/2 K at planting (T2) was applied. Cane yield (TC/Ha) and sugar yield (LKg/Ha) did not differ significantly while the recommended practice (T5) produced significantly the highest sucrose content of 1.84 LKg/TC comparable with T2. Highest ROI of 0.65 was obtained using the method of 30 cm bud-to-bud spacing due to less cost of planting materials. Thus, when planting during the wet season optimum sugar yield and profit can be obtained using the method of 30 cm bud-to-bud spacing.

- On the ***Ratooning ability assessment of Phil 2009-1867 and Phil 2009-1969 varieties,*** cane tonnage (TC/Ha) and sugar yield(LKg/Ha) of both varieties decreased from first to third ratoon while sucrose content(LKg/TC) increased. On the average, Phil 2009-1867 produced 84.07 TC/Ha, 173.82 LKg/Ha, and 2.10 LKg/TC while Phil 2009-19969 produced 111.18 TC/Ha, 204.52 LKg/Ha, and 1.86 LKg/TC. The decrease in sugar yield was brought about by the high decrease in tonnage due to decrease in number of millable stalks and weight which could be an influence of its genetic make-up. Average ROI of 1.24 and 1.39 were obtained from Phil 2009-1867 and Phil 2009-1969, respectively. Thus, Phil 2009-1867 and Phil 2009-1969 can still be profitable when planted up to the third ratoon and probably longer if replanting will be done.
- On the ***Ratooning ability assessment of Phil 2010-0107,*** cane tonnage (TC/Ha) and sugar yield (LKg/Ha) of Phil 2010-0107 decreased from first to third ratoon while sucrose content increased. On the average it produced 76.70 TC/Ha, 153.30 LKg/Ha, and 2.08 LKg/TC. The decrease in sugar yield was brought about by the high decrease in tonnage due to decrease in number of millable stalks and weight which can be attributed largely on its genetic characteristic. Economic analysis showed that an average ROI of 1.11 can be obtained in the production of Phil 2010-0107 up to the second ratoon and probably higher if replanting will be done.
- On the ***Growth, yield potential, and ratooning ability of ten SRA high yielding varieties,*** tonnage (TC/Ha) and sugar yield (LKg/Ha) of the ten varieties decreased from first to third ratoon while sucrose content (LKg/TC) generally increased. Tonnage was generally comparable from plant cane to second ratoon, sugar yield in the first and second ratoon and sucrose content from plant cane to third ratoon. Phil 75-44 had highest average yield of 132.88 TC/Ha and 273.75 LKg/Ha while Phil 97-3933 had the highest average sucrose content of 2.20 LKg/TC. Among the test varieties Phil 75-44 has shown superior performance by producing the highest average sugar yield due to heavier and more stalks which can be attributed to its inherent characteristics and adaptability to sandy soil condition. Average ROI ranged from 1.31 to 1.84 with the highest observed from Phil 75-44. All varieties are profitable to grow up to the third ratoon but higher profits can be realized using Phil 7544.

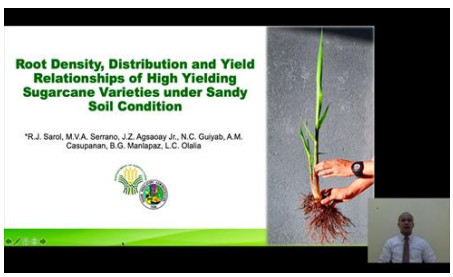
TECHNICAL PAPERS PRESENTED

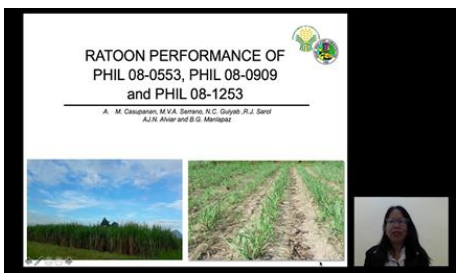
A. 2020 SRA National In House Review, Virtual Presentation, December 3-4, 2020

1. Growth and yield performance of Phil Phil 2009-1867 and Phil 2009-1969 under different
5. densities of planting
2. Growth and yield performance of Phil Phil 2010-0107 under different densities of planting
3. Yield Potential Assessment of Phil Phil 2009-1867 and Phil 2009-1969 at different seasons of planting
4. Yield Potential Assessment of Phil Phil 2010-0107 at different seasons of planting
5. Influence of detopping on cane and sugar yield of Phil 2006-2289 and Phil 2006-1899
6. Ratooning ability assessment of Phil 2009-1969 and Phil 2009-1867 varieties
7. Ratooning ability assessment of Phil 2010-0107
8. Growth, yield potential, and ratooning ability of ten SRA high yielding varieties
9. Performance of Sugarcane Variety and Nutrient Recommendation on Major Soil Series of Central Luzon
10. Relationship of vegetation indices and SPAD meter readings with sugarcane leaf nitrogen under
11. Fertilizer Application Protocols on Pre-Germinated One-Eye Cuttings of Sugarcane Varieties for Canepoint Production

B. 30th Virtual Regional Symposium on Research & Development Highlights (WESVAARRDEC) December 10-11, 2020

1. Root Density, distribution, and yield relationships of high yielding sugarcane varieties under sandy soil condition
2. Ratoon Performance of Phil 08-0553, Phil 08-0909 and Phil 08-1253





AWARDS RECEIVED

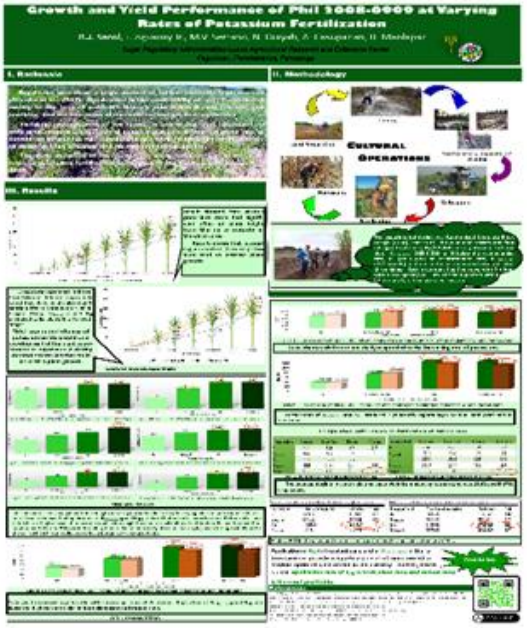
A. Poster Presentation

1. Second Runner-up

Poster title: *"Root density, distribution, and yield relationships of high yielding sugarcane varieties under sandy soil condition"*

Project Leader: Rachel J. Sarol

Event: 2020 SRA National In House Review, Virtual Presentation, December 3-4, 2020

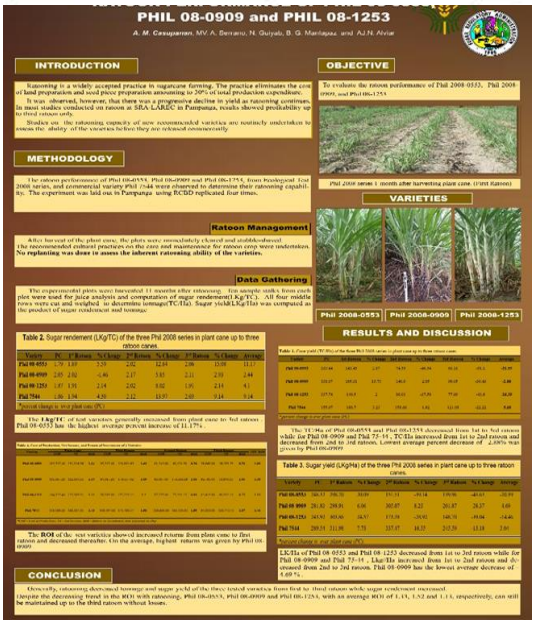


2. Third Place

Poster Title: *"Ratoon Performance of Phil 08-0553, Phil 08-0909 and Phil 08-1253"*

Project Leader: Agnes M. Casupanan

Event: 30th Virtual Regional Symposium on Research & Development Highlights (WESVAARRDEC) December 10-11, 2020



3. Second Best Paper Award

Title: "*Relationship of vegetation indices and SPAD meter readings with sugarcane leaf nitrogen under Pampanga Mill District, Philippines condition"*

Project Leader: Maria Kenneth Lane R. Suplito

Event: 30th Virtual Regional Symposium on Research & Development Highlights (WESVAARRDEC) December 10-11, 2020

4. Third best Paper Award

Title: *"Fertilizer Application Protocols on Pre-Germinated One-Eye Cuttings of Sugarcane Varieties for Canepoint Production"*

Researcher: Patricio R. Macamos, Jr.

Event: 30th Virtual Regional Symposium on Research & Development Highlights (WESVAARRDEC) December 10-11, 2020

INTERNATIONAL PAPER PUBLICATION

Title: "Root density, distribution and yield relationships of high yielding sugarcane varieties under sandy soil condition "

Publishing Company: Conscientia Beam, Journal on Review of Plant Studies

Indexed/Abstracted in: Google Scholar, Agris, DOI, Crossref, Microsoft Academic Search, Citefactor and other databases

Title: "Relationship of vegetation indices and SPAD meter readings with sugarcane leaf nitrogen under Pampanga Mill District, Philippines condition"

Publishing Body: IOP Conference Series: Earth and Environmental Science
https://iopscience.iop.org/article/10.1088/1755-1315/540/1/012016/meta

Published under license by IOP Publishing Ltd.
IOP Conference Series: Earth and Environmental Science, Volume 540, 10th IGRSM International Conference and Exhibition on Geospatial & Remote Sensing 20-21 October 2020, Kuala Lumpur, Malaysia

OTHER RELATED R&D ACTIVITIES

- Soils Laboratory analyzed 1056 soil samples, received from 667 sugarcane planters (585 from Block farm planters and 82 from individual planters) , 18 from government & private entities and 10 from researchers; analyzed 889 cane juice samples, received from 6 government & private entities and 10 from SRA researchers and 33 from individual planters

- Maintained 83 released/recommended for release Phil, VMC and PSR varieties and 323 preserved insect pests and natural enemies

- Attended 35 scientific fora/ trainings/seminars/workshops, five (5) inter agency meetings/evaluations/ consultations, and 23 agency meetings; processed of 26 Land Use Reclassification (LUR) applications; rendered assistance to: a. three planters on pest damage assessment and sugarcane production,
b. university/college students on sugarcane diseases(3X), c. one business entity on farm machinery

I. RESEARCH AND DEVELOPMENT PROJECTS

Research & Development projects/studies implemented

Status	Number of Projects
Completed	**11**
VIPM	2
PTCM	9
On-going	**11**
VIPM	2
PTCM	9
New/Laid-out	**8**
VIPM	2
PTCM	6
Total	**30**

Completed Projects/Studies (11)

A. Variety Improvement and Pest Management (2)

1. Screening of selected Phil 2014 series clones/varieties for resistance to smut

A. Casupanan, N. Guiyab, MV. Serrano, B. Manlapaz, R. Sarol, J. Agsaoay

Resistance to smut is one of the criteria all clones/varieties must pass before they can be released as commercial varieties. In this study thirty selected clones from the Phil 2014 series Row test at LGAREC and two check varieties were planted and ratooned to test their reaction to sugarcane smut. Among the thirty clones 10 were rated very highly resistant, namely, Phil 14-0727, Phil14-0703, Phil 14-0723, Phil 14-0085, Phil 14-0729, Phil14-0679, Phil 14-0459, Phil 14-0475, Phil 14-0389 and Phil 14-0395. Six clones, Phil 14-0405, Phil14-0317, Phil 14-0919, Phil 14-0781, Phil 14-0955 and Phil 14-0983 were rated highly resistant while two clones, Phil 14-0243 and Phil 14-1057 were rated resistant. Phil 14-0005, Phil 14-0009, Phil 14-0013, Phil 14-0663, Phil 14-0733, Phil 14-0451, Phil 14-0125 and Phil 14-0267 were rated intermediate resistant. On the other hand, Phil 14-1007 was rated intermediate average. The three other test varieties were rated susceptible to smut. Clones rated very highly resistant to intermediate resistant are recommended to go further testing for downy mildew resistance.

2. Screening of selected Phil 2013 series clones/varieties for resistance to downy mildew

A. Casupanan, N. Guiyab, MV. Serrano, B. Manlapaz, R. Sarol, J. Agsaoay

Resistance to downy mildew is one of the criteria all clones/varieties must pass before they can be released as commercial varieties. In this study ten selected clones from the Preliminary Yield Test 2013 series at LAREC and two check varieties were screened and evaluated for resistance to sugarcane downy mildew in the plant and ratoon cane. Among the ten clones of Phil 2013 series, eight clones were rated very highly resistant namely, Phil 13-1495, Phil 13-1319, Phil 13-0287,Phil 13-1585, Phil 13-0279, Phil 13-0771, Phil 13-1627 and Phil 13-1667 while the two clones, Phil 13-1619 and Phil 13-1599 were rated highly resistant. All the clones showed resistance to downy mildew and are recommended to undergo further testing in the agronomic and ecological test.

B. Production Technology and Crop Management (9)

1. Growth and yield performance of Phil 2009-1867 and Phil 2009-1969 under different densities of planting

N. Guiyab, B. Manlapaz, R. Sarol, MV. Serrano, R. Locaba

Varieties have different characteristics that dictates certain management practices such as planting density to attain potential yield. A study was conducted at LAREC, Floridablanca, Pampanga from November 2018 to January 2020 to test the growth and yield performance of Phil 2009-1867 and Phil 2009-1969 using 3.5, 4.0, 4.5 and 5.0 lacsas of canepoints per hectare with three meters distance between furrows. The experiment was laid out in strip plot design using 6 rows x 9 m plots with four replications.

Tonnage (TC/Ha) and sugar yield (Lkg/Ha) were significantly highest at 4.5 and 5.0 lacsas. Sucrose content (Lkg/TC) of the two varieties did not vary significantly under different level of densities of planting. Highest net income and ROI of 0.76 and 0.75 for Phil 2009-1867 and Phil 2009-1969 were obtained when 4.5 lacsas per hectare were used. These findings mean that the highest sugar yield and profitable income may be achieved when the varieties are planted using 4.5 lacsas of canepoints and three meters furrow distance. This may serve as a guide for farmers using these two varieties.

2. Growth and yield performance of Phil 2010-0107 under different densities of planting

N. Guiyab, B. Manlapaz, R. Sarol, MV A. Serrano, R. Locaba

Planting density is one of the important considerations in the production of a certain variety to obtain high yield and increase productivity. The growth and yield performance of Phil 2010-0107 was studied using 3.5, 4.0, 4.5 and 5.0 lacsas of canepoints per hectare with three meters distance between furrows to determine optimum planting density. The experiment was laid out at LAREC, Floridablanca, Pampanga from November 2018 to January 2020 using randomized complete block design with 6 rows x 9 m plots replicated four times.

Cane tonnage (TC/Ha) was significantly highest at 4.0 and 5.0 lacsas while sugar yield was significantly highest at 4.0 lacsas. Sucrose content (Lkg/TC) did not vary significantly under different level of densities of planting. Highest net income and ROI of 143,283.62 and 0.95, respectively, were obtained when 4.0 lacsas per hectare were used. Thus, highest sugar yield and profit for Phil 2010-017 can be obtained using 4.0 lacsas of canepoints

3. Yield potential assessment of Phil 2009-1867 and Phil 2009-1969 at different seasons of planting

A. Alviar, MV A. Serrano

This paper assessed the yield of Phil 2009-1867 and Phil 2009-1969 with the different seasons of planting and under the agroclimatic conditions of Pampanga in the Philippines. An experimental design in split-plot using Randomized Complete Block Design, replicated four times with varieties as main plot and seasons as subplot was laid-out. Results showed that moisture content at harvest of early season planted canes had 81.32% and 123.74% higher compared to middle and late season while soil surface temperature occurred during middle season had 1.71% and 3.57% higher compared to early and late season at harvest, respectively. The highest amount of rainfall two months prior to harvesting was recorded in early season. These differences in climatic conditions caused the variations in the millable stalk attributes and yield components. Phil 2009-1969 had higher tonnage and sugar yield while Phil 2009-1867 had higher sucrose content. Boxplots showed the distribution of tonnage, sugar yield, and millable stalk attributes of both varieties and showed decreasing trend from early to late season. The results indicated that planting sugarcane during

early season provided better millable attributes and was 19.02% and 116.02% higher cane tonnage compared to middle and late season, respectively. Early and middle had comparable sugar yield but 75.06% and 66.24% higher compared to late season. Sucrose content obtained significantly the highest when planted at late season and was 23.08% and 7.69% higher compared to early and middle season. Planting sugarcane in middle season provided the highest return on investment in these particular varieties.

4. Yield Potential Assessment Of Phil 2010-0107 With Different Seasons Of Planting Under The Agro-Climatic Conditions Of Pampanga Mill District, Philippines

A. Alviar, MV A. Serrano

This paper assessed the yield of Phil 2010-0107 with the different seasons of planting and under the agroclimatic conditions of Pampanga in the Philippines. An experimental design in randomized complete block design single factor, replicated four times with season of planting as the factor was laid-out. Results showed that moisture content at harvest of early season planted canes had 53.78% and 137.05% higher compared to middle and late season, respectively. Lowest soil surface temperature occurred during middle season with 1.87% and 4.80% higher compared to early and late season at harvest, respectively. The highest amount of rainfall two months prior to harvesting was recorded in early season. These differences in climatic conditions caused the variations in the millable stalk attributes and yield components. Stalk length, millable count, tonnage, and sugar yield decreased while sucrose content increased from early to late season of planting. The results indicated that planting sugarcane during early season provided longer and a greater number of millable stalks. Early season produced 36.17% and 72.17% higher cane tonnage compared to middle and late season, respectively. Sucrose content obtained significantly the highest when planted at late season and was 23.93% and 14.12% higher compared to early and middle season, respectively. Sugar yield of early and middle was comparable but 40.11% and 10.78% higher compared to late season, respectively. Planting sugarcane in early season provided the highest return on investment and net income in this particular variety.

5. Influence of De-Topping on Cane and Sugar Yield of Phil 2006-2289 and Phil 2006-1899

B. Manlapaz, R. Sarol, MV A. Serrano, RD. Locaba, N. Guiyab,

De-topping or cutting the upper portion of the stalk before harvest is a practice among farmers to avail themselves of planting materials for the current planting season or as animal feed. This practice, however, could affect yields when the cane is not immediately milled. Therefore, this study was conducted to determine the influence of de-topping on the cane and sugar yields of Phil 2006-2289 and Phil 2006-1899 when crushed at 0, 2, 4, 6 & 8 days after de-topping. The experiment was laid out at the Luzon Agricultural Research and Extension Center, Floridablanca, Pampanga under Angeles sandy loam condition and was conducted from December 2018 to March 2020, using factorial in randomized complete block design. Between the two tested varieties, Phil 06-1899 produced significantly higher cane and sugar yield of 127.48 TC/Ha and 248.24 LKg/ha, respectively, than Phil 2006-2289 and significantly higher sucrose content of 2.09 LKg/TC. Cut-to-crush delay of 0, 2 and 4 days after de-topping produced comparable cane and sugar yields which were significantly higher than 6 and 8 days. On sucrose content, only the cut-to-crush delay of 2 days after de-topping produced the significantly highest LKg/TC of 2.22. The cut-to-crush delay of 2 days gave the highest return on investment for both varieties. This could be inferred those 2 days after de-topping is the ideal number of delay days for milling when the optimum polarization or concentration of sucrose content of cane juice is achieved, and stalks had not yet deteriorated.

6. Tiller Induction Methods for Wet Season Planting

N. Guiyab, B. Manlapaz, R. Locaba, MV. Serrano

In most sugarcane areas where irrigation is not available farmers opt to plant during the rainy season. The environment during this season, however, is not good for the growth of sugarcane due to the absence of favorable climatic conditions that will enhance growth of the crop. This study examined the most suitable method of tiller induction on the growth and yield of Phil 80-13 during wet season planting. The study was laid out in randomized complete block design at LAREC, Floridablanca, Pampanga from July 2019 to May 2020.

Germination was highest from 30 cm bud to bud spacing (T4) while cutting of primary tillers at emergence (T1) resulted to significantly highest average tiller per stool and millable stalks. Stalk length, diameter and weight of Phil 80-13 varied significantly. It was observed that significantly highest results were obtained from 2/3 N & 1/2 K at

planting (T2) with 217.15 cm, 2.78 cm and 1.59 kg, respectively. Cane yield (TC/Ha) and sugar yield (LKg/Ha) did not differ significantly. However, highest yields were observed on T1 with 108.65 TC/Ha and 2/3 N & ½ K at 1 ½ MAP (T3) with 179.66 LKg/Ha. On the other hand, significantly highest sucrose content of 1.84 LKg/TC was obtained from the recommended practice (T5) comparable with T2 with 1.83 LKg/TC. Highest ROI of 0.65 was obtained from T4 due to less cost of planting materials. These results suggest that when planting during the wet season optimum sugar yield and profits can be obtained using the method of 30 cm bud-to-bud spacing.

7. Yield Performance Of High Yielding Sugarcane Varieties In Three Ratoon Crops

JZ. Agsaoay, Jr., J. Vicente, MV A. Serrano, RD A. Locaba

To minimize production costs, ratooning has been practiced for years in sugarcane production. Ratooning is the growing of new shoots from the stubbles after harvesting, eliminating the need for land preparation. This study determined the respective ratooning ability of recommended varieties Phil 09-1867 and Phil 09-1969 as well as the check varieties Phil 75-44 and Phil 80-13. The observations in this study were obtained from the ratoons of the Ecological Test 2009 series varieties which were laid-out in RCBD with four replications at the Luzon Agricultural Research and Extension Center, Floridablanca, Pampanga under sandy loam soil conditions. Gathered and computed data included number of millable stalk, stalk length, stalk diameter, cane yield, sugar yield, sucrose yield and return on investment (ROI).

The cane yield (TC/Ha) and sugar yield (L-Kg/Ha) of the four varieties decreased from the first ratoon up to the third ratoon. Average percent decrease in TC/Ha ranged from 70.55 - 44.51 and 68.84 - 37.79 in L-Kg/Ha. Phil 2009-1867 had the highest percent decrease in both yield parameters while lowest decrease in TC/Ha and L-Kg/Ha were observed from Phil 80-13 and Phil 75-44, respectively.

The decrease in trend was also observed on other yield components except on sucrose content (L-Kg/TC), which increased as the ratooning cycle progressed. Highest average percent increase of 15.95 was observed from Phil 75-44 and the lowest was from Phil 09-1969 at 1.17%. Average ROI in three ratoon crops ranged from 1.24 to 1.77 with Phil 80-13 being the most profitable and Phil 2009-1867 the least.

These results show that all four varieties can still be maintained profitably up to the third ratoon. A study may be done to determine their ratooning ability under different soil conditions.

8. Ratoon Performance of Phil 2010-0107, Phil 75-44 and Phil 80-13

JZ. Agsaoay, Jr., J. Vicente, MV A. Serrano, RD A. Locaba

One of the methods practiced in most sugarcane farms is the ratooning of the crop. This method can save the farmer costs from planting materials and labor as well as land preparation activities. For this reason the ratooning ability of a variety is tested before they can be released for commercial planting.

This study was conducted to assess the ratooning ability of Phil 2010-0107, without replanting, to determine inherent ratoon survival and potential yields. The ratoon ability of control varieties Phil 75-44 and Phil 80-13 were also observed. The data was gathered from the ratoon of the Ecological test of Phil 2010 series varieties from February 2017 to February 2020 at LAREC, Floridablanca, Pampanga under sandy soil condition using recommended cultural practices.

Cane tonnage (TC/Ha) and sugar yield (LKg/Ha) of Phil 2010-0107 decreased from first to third ratoon while sucrose content increased. On the average it produced 76.70 TC/Ha with a decrease of 69.92% and 153.30 LKg/Ha with a decrease of 65.70% while sucrose content was 2.08 LKg/TC with an average increase of 13.61%. Phil 75-44 and Phil 80-13 had a much higher average cane and sugar yield with lower percent decreases. On the average the control varieties produced 108.40 TC/Ha and 225.65 LKg/Ha. Sucrose content was 2.13 LKg/TC with an average increase of 15.23%. The decrease in sugar yield in Phil 2010-0107 was brought about by the high decrease in tonnage due to decrease in number of millable stalks and weight which can be attributed largely on its genetic characteristic. Highest average ROI of 1.78 was obtained from Phil 75-44 and lowest of 1.11 from Phil 2010-0107. These results show that Phil 2010-0107 can still be profitable when planted up to the second ratoon and probably longer if replanting will be done. The two control varieties showed better ratooning ability as evidenced by their higher yield and profit. A study should be done to determine ratooning ability under varying soil conditions.

9. Growth, Yield Potential, and Ratooning Ability of Ten (10) SRA High Yielding Varieties

JZ. Agsaoay, Jr., RD A. Locaba, MV A. Serrano

Ratooning had been practiced by sugarcane farmers to maximize the cost of production in the plant cane by eliminating the cost in planting material, cultivation, labor and time. This study was conducted to assess the growth, stalk and yield performance of ten SRA high yielding varieties from January 2016- February 2019 in the experimental area of SRA-LAREC, Floridablanca, Pampanga (14° 59'23.68''N, 120°31'40.39''E).

On cane and yield parameters, it was observed that Phil 75-44 significantly had the highest tonnage in all cropping seasons. The average yield loss of the varieties ranged from 21.75%-39.87%. Sucrose content had increased from the first ratoon up to third ratoon. During the first ratoon, most values were also comparable with the significantly highest sucrose content of Phil 93-1601 (2.30 Lkg/TC) and significantly lowest value 1.50 Lkg/TC using Phil 00-1419. In the second ratoon, sucrose content ranged from 2.07-2.37 Lkg/TC and third ratoon 2.17-2.44 Lkg/TC, which did not differ significantly. During the first and second ratoon, no significant differences were observed in the sugar yield. However, in the third ratoon, significantly highest sugar yield was observed in Phil 75-44 (191.43 LKG/Ha). The average decrease in sugar yield of the test varieties from first up to third ratoon ranged from 15.06%-33.34%.

Positive ROIs were obtained from all the varieties across all ratoon cropping. However, the net incomes in the third ratoon were mostly below Php 50,000.00 which was no longer practical for a year of growing canes. Nevertheless, this study is limited to experimental plot size area and the prevailing soil and climatic condition in SRA-LAREC, Pampanga. Thus, further study could still be conducted on the ratooning of these varieties to other locations, to better assess the varieties that could be included in the recommended variety pool for ratooning, site specifically.

C. FARM AND BUILDING SUPPORT SERVICES

1. Fertilizer Application Protocols on Pre-Germinated One-Eye Cuttings of Sugarcane Varieties for Canepoint Production

Patricio R. Macamos, Jr.

Analysis of variance among varieties and fertilizer application protocols revealed significant variation in the parameters except in the stool survival rate, plant height at 3 and 5 MAT. The variety Phil 2006-1899 when fertilized twice a month in two weeks interval through fertigation showed the highest stool survival rate, tillers and plant height. The variety Phil 2006-2289 when fertilized twice a month in two weeks interval obtained the highest result in the number of millable stalks and seedpieces produced.

The variety Phil 2006-2289 is highly recommended for production of planting materials or seedpieces particularly when combined with twice a month fertilizer application in two weeks interval through fertilization.

2. Performance of Sugarcane Variety and Nutrient Recommendation on Major Soil Series of Central Luzon

Maria Kenneth Lane Suplito, Patricio Macamos Jr. and Laverne Olalia

Tillers per sq. meters and millable stalks per sq. meters were significantly different across fertilizer regimes in SRA-LAREC. Meanwhile, plant height, millable stalks per sq. meters, yield stalk characteristics, cane yield and sugar yield were statistically different across varieties in both sites. It was observed that potential yield of varieties was achieved at different fertilizer regime based on soil series. Under Angeles soil series, for Phil 99-1793 395kg urea (46-0-0) and 325kg muriate of potash (0-0-60), for Phil 2006-1899 400kg (46-0-0) and 345kg (0-0-60) and for Phil 2006-2289 195 to 400kg 46-0-0 and 260 to 545kg 0-0-60 should be applied. Under Luisita soil series, for Phil 99-1793 400kg 46-0-0 and 525kg 0-0-60, for Phil 2006-1899 395kg 46-0-0 and 550kg 0-0-60 and for Phil 2006-2289 195 to 395kg 46-0-0 and 340 to 565kg 0-0-60 should be applied.

3. Relationship Of Vegetation Indices And SPAD Meter Readings With Sugarcane Leaf Nitrogen Under Pampanga Mill District, Philippines Condition

M R Suplito1, F B David2 and L C Olalia

A study was conducted to evaluate the relationship of vegetation indices (NDVI and GNDVI) and SPAD meter readings with sugarcane leaf N and to introduce the best sampling date for evaluation of plant N. SPAD meter readings (SMR), soil moisture, NDVI and GNDVI were gathered from 15 sampling sites in Pampanga Mill District under different N

fertilization practices and these were correlated with actual plant N. Six to thirteen, 21-28, 36-43, 100-107 and 147-154 days after fertilization (DAF) were sampling dates maintained each location. Results showed that SMR has highest positive correlation with plant N (0.86, 6-13 DAF), GNDVI (0.80, 147-154 DAF), soil moisture (0.79, 147-154 DAF) and NDVI (0.73, 147-154 DAF). Among sampling dates, it was recommended that 21 to 28 DAF using GNDVI (0.56) and SPAD meter (0.76) is the best sampling date for evaluation of plant N status in Pampanga Mill District; since it coincides with stalk elongation stage and grand growth phase when rapid leaf production and vigorous vegetative development occur. Measurements of vegetation indices and SPAD meter readings have potential in evaluating plant N through rapid assessment and ground validation, respectively.

On -going projects/Continuing (11)

A. Variety Improvement and Pest Management (2)

1. Screening of Phil 2014 series clones/varieties for resistance to downy mildew
A. Casupanan, J. Vicente, MV. Serrano

Ten test clones from Phil 2014 series and one check variety Phil 7544 were planted to test their resistance to downy mildew. The experiment is in the first ratoon. Routine observation, data recording of disease occurrence as well as care and maintenance are on-going.

2. National Cooperative Test (LAREC Cluster)
MV. Serrano**,** H. Tangara**,** N. Guiyab, R. Sarol, A. Casupanan, B. Manlapaz, A. Alviar, R. Locaba

Ten test varieties and two check varieties were laid out in seven (7) mill districts in Luzon and Mindanao to determine their adaptability in the different locations. Plant cane data in six experimental sites were already consolidated and submitted to UPLB-CAFS for analysis. The plant cane in Don Pedro MD will be harvested in February. Ratoon crop in two sites were also harvested and three more experimental areas will be harvested in the first quarter of 2021. The ratoon crop in Pensumil MD was abandoned due to heavy damage caused by typhoon "Rolly."

Two new experimental sites at Tarlac and Cavite for the next test were inspected and the MOAs with the cooperators have been approved. Care and maintenance at the propagation area at LAREC are on-going.

B. Production Technology and Crop Management (9)

1. The Impact Of Depth Of Land Preparation On Sugarcane Yield In Angeles Loamy Sand
B. Manlapaz, R. Locaba, N. Guiyab, MV. Serrano

The experiment was laid out in strip plot using three varieties and 12, 18, 24, 30 inches depth as treatments. Results in the plant cane showed no significant differences in the yield at different depths of land preparation. The ratoon crop will be harvested in February.

2. Effect of Calcitic Lime on Cane and Sugar Yields of Three High Yielding Varieties Planted in Bukidnon Clay Soils
R. Locaba, B. Manlapaz, N. Guiyab, MV. Serrano

The experiment was laid out in strip plot using three varieties and 0, ½ recommended rate, recommended rate and 150% recommended rates of lime. The experiment was laid-out in July. Pertinent agronomic data were gathered and care and maintenance are on-going.

3. Yield Performance Of Phil 2009-1867 And Phil 2009-1969 At Different Levels Of Potassium Fertilization
R. Locaba, B. Manlapaz, N. Guiyab, A. Alviar, MV. Serrano

Two recommended varieties Phil 2009-1969 and Phil 2009-1867 were laid out in December 2019 using factorial in RCBD to determine yield responses when fertilized with 0, ½, recommended rate, recommended and ½ above recommended rates of potassium. Data gathering and care and maintenance activities were undertaken. Harvesting

will be done when canes are mature.

4. Yield Performance Of Phil 2010-0101 At Different Levels Of Potassium Fertilization

R. Locaba, B. Manlapaz, N. Guiyab, A. Alviar, MV. Serrano

Phil 2010-0107, a recommended variety from Phil 2010 series Ecological Test was laid out in December 2019 in RCBD to determine yield responses when fertilized with with 0, ½ below recommended rate, recommended rate and ½ above recommended rates of potassium. Data gathering and care and maintenance activities were undertaken. Harvesting will be done when canes are mature.

5. Yield Performance Of Phil 2009-1867 And Phil 2009-1969 At Different Levels Of Nitrogen Fertilization

R. Locaba, B. Manlapaz, N. Guiyab, A. Alviar, MV. Serrano

Two recommended varieties Phil 2009-1969 and Phil 2009-1867 were laid out in December 2019 using factorial in RCBD to determine yield responses when fertilized with 0, ½, recommended rate, recommended and ½ above recommended rates of nitrogen. Data gathering and care and maintenance activities were undertaken. Harvesting will be done when canes are mature.

6. Yield Performance Of Phil 2010-0101 At Different Levels Of Nitrogen Fertilization

R. Locaba, B. Manlapaz, N. Guiyab, A. Alviar, MV. Serrano

Phil 2010-0107, a recommended variety from Phil 2010 series Ecological Test was laid out in December 2019 in RCBD to determine yield responses when fertilized with with 0, ½ below recommended rate, recommended rate and ½ above recommended rates of nitrogen. Data gathering and care and maintenance activities were undertaken. Harvesting will be done when canes are mature.

7. Yield Performance Of Phil 2009-1867,1969 And Phil 2010-0107 At Different Ages At Harvest

A. Alviar, R. Locaba, MV. Serrano, N. Guiyab

The study was laid out in factorial in RCBD using Phil 2009-1867,1969 and Phil 2010-0107 to determine the optimum age at which the varieties should be harvested to obtain maximum yields. Eleven and 12- month-old canes were already harvested. Thirteen-month-old canes will be harvested in 2021. Agronomic data taken are being consolidated prior to analysis.

8. Growth, Development And Yield Response Of HYVs To Variations In Leaf Canopy Structure

R. Sarol, MV. Serrano, A. Alviar

Three types of leaf canopy structure, erect, erect with drooping tips, and drooping tips were identified for the study. A total of six varieties, two varieties exhibiting each type, were laid out in randomized complete block design to assess growth, development and yield. The experiment is in the ratoon. All pertinent data are being consolidated and analyzed. Care and maintenance are undertaken.

9. Influence Of Season Of Planting On Incidence Of Sugarcane Smut

A. Casupanan, J. Vicente, MV. Serrano

The experiment was laid out in factorial in RCBD using Phil 2004-0081 and Phil 2000-0881 to determine incidence of smut in three seasons of planting. The early-season treatment in ratoon crop was harvested in November. Data are being consolidated.

New/Laid – out (8)

A. Variety Improvement and Pest Management (2)

1. Screening Of Selected Phil 2015 Series For Resistance To Smut

A. Casupanan, N. Guiyab, V. Serrano,

Ten test clones from Phil 2014 series and one check variety Phil 7544 were planted to test their resistance to downy mildew. The plants were given proper care and maintenance. Continuous observation and data recording of disease occurrence are on-going.

2. Preliminary Yield Test of Phil 2015

Thirty test clones from Phil 2015 row test series from LGAREC were entered in the preliminary yield test at LAREC using RCBD to compare their agronomic and yield potential with two check varieties, Phil 8013 and Phil 7544, under natural field conditions at LAREC. Pertinent agronomic data are being gathered and care and maintenance are undertaken.

B. Production Technology and Crop Management (6)

1. Soil Moisture Management For Ready To Harvest Mature Canes

B. Manlapaz, R. Locaba, N. Guiyab, V. Serrano

A study to determine the appropriate soil moisture content during harvest was conducted using Phil 99-1793. Treatments involve 2-12 days at two days interval. Data gathering, care and maintenance are on-going.

2. Yield Performance of Phil 2007-0243 and Phil 2009-1969 in Semi-Commercial Production

Two recommended varieties Phil 2007-0243 and Phil 2009-1969 were planted in December using experimental and commercial plots to compare and verify yields prior to commercialization. Care and maintenance are undertaken.

3. Evaluation of SRA HYVs to Ethanol Production

A. Alviar, N. Guiyab, V. Serrano

A study was laid out to test the potential of four varieties for ethanol production at 8, 9 and 10 months of age. The study was laid out in Isabela State University using split plot design. The eight-month old canes were not harvested as scheduled due to typhoon "Ulyses." The canes were harvested at nine months of age instead. Care and maintenance are undertaken.

4. Varietal Screening To Herbicide Tolerance

R. Sarol, V. Serrano, A. Alviar

Eighty varieties planted in two rows each were established to assess tolerance to herbicide treatment. Half of the rows of each variety were sprayed with double the recommended rate of glyphosate to assess maximum tolerance to the herbicide. Four varieties Phil 09-1867, 03-1727, 89-43 and 02-0421 showed potential in terms of degree of survival. Another two sets will be established to test for tolerance to diuron and 2,4-d. Thereafter, a factorial experiment will be laid-out to assess the growth, development and yield of varieties with tolerance to glyphosate, diuron and 2,4-d.

5. Agronomic response of Phil 80-13 at different PGR concentration

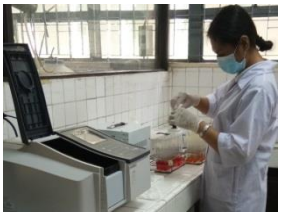
One eye cutting of Phil 80-13 are soaked in different concentrations and combinations of the plant growth hormones benzylaminopurine (BAP) and naphthaleneacetic (NAA) to determine effect on agronomic traits. The cuttings were planted in plastic cups to initiate initial growth before field transplanting.

6. Effect of soil potassium levels to sugarcane downy mildew

The effect of potassium in the control of downy mildew was tested using Phil 75-44, a variety that is rated intermediate average (17-21%) to the disease. The study was laid out -using randomized complete block design using 0, recommended rate, 50, 100, 150, 200, 250, and 300 kg/ha of potassium. Data gathering, care and maintenance are on-going.

II. PRODUCTION SUPPORT SERVICES

1. Laboratory Services



One thousand fifty-six (1056) soil samples received from 82 individual planters, 585 Block farm planters, 18 from government and private entities and 10 from SRA researchers were analyzed for N , P, K, Ca, and Mg content and pH in the soil laboratories of Pampanga, Bukidnon and Davao as basis for the fertilization and recommendation.

Eight hundred eighty-nine (889) juice samples received from 6 private and government clientele, 33 planters and 10 from SRA researchers were also analyzed**.**

2. Variety Garden

A total of 83 released/recommended Phil, VMC and PSR varieties are maintained in the two sets of variety/clonal garden at the experimental area for various purposes. The varieties are in the plant and ratoon cane.

3. Collection and preservation of insect pest and natural enemies

Three hundred twenty-three (323) preserved insect pests and natural enemies are preserved in the Crop Protection Laboratory.

I. Insect Pests		No. of Specimens
Order Coleoptera		
1. Scarabaedae		
	a. Leucopholis irrorata – adult	165
	grub	3
	b. Holotrichia vidua – adult	32
	c. Anomala anogutata – adult	23
2. Elateridae		
	a. Melanotus sp.	3
3. Lucanidae		4
4. Chrysomellidae		4
5. Dynastidae		5
6. Coccinellidae		6
7. Curculionidae		2
Order Lepidoptera		
1. Crambidae	– adult	13
2. Schoenobidae	– adult	3
3. Noctuidae	– adult	18
4. Pieredae		13
	Sub -total	**294**
II. Natural Enemies		
Order Coleoptera		
1. Coccinellidae		
	a. Monchilus sexmaculatus	11
	b. Micraspis crocea	2
	c. Harmonia octomaculata	2
	d. Aulacophora similis	4
2. Carabidae		
	a. Carabus sp.	4
3. Lampyridae		2
4. Curculionidae		
	a. Metapocyrtus sp.	4
	Sub Total	**29**
	Grand Total	**323**

4. Propagation of Clones and Varieties

The ratoon of Preliminary Yield Tests of Phil 2014 is maintained as source of planting materials of recommended varieties for planting in the National Cooperative Tests. One hundred forty-four various clones, HYVs and check varieties were also propagated as source of planting materials for various field experiments.

OTHER RELATED R & D ACTIVITIES

I. Technical assistance/service to industry clienteles/other institutions (inquiries on sugarcane production, soil analysis/ sampling, new HYVs, diseases etc.; farm survey, variety identification).

Inter-agency linkages (6)

a. 26 Land Use Reclassification (LUR) applications processed

Meetings:

b. Gawad Saka Meeting, DA Quezon City, February 7, 2020, BG Manlapaz
c . NTECLUM, BSMW Quezon City, March 10, 2020, BG Manlapaz
d. Bases Conversion and Development Authority (BCDA), June 02, 2020 - B.G. Manlapaz
e. SRA-PNRI SIDA Project (zoom) meeting, September 17, 2020 - Benjamin G. Manlapaz

f. ASF Philippines, Inc., March 12, 2020 - BG Manlapaz
g. Attended BAC meetings; October, November and December 2020; Laverne C. Olalia, Patricio R. Macamos, Jr., Ador C. Bacani
h. .Conducted inspection on farm mechanization projects (tractors, implements, harvesters and loaders); October 2 and 19, 2020, November 4, 11,13 and 20, 2020; December 2, 2020; Patricio R. Macamos, Jr.

1. Consultation, Technical Assistance to other Industry Clientele (7)

A. Educational Institutions (3)

a. University of Santo Tomas
   1. Data gathering on Sugarcane Diseases, February 5, 2020 - AARD staff

b. University of the Philippines Los Baños
   1. Jemimah C. Banganan - Provision of 30 smut whip samples, October 6, 2020
   2. Jemimah C. Banganan - Provision of 30 smut whip samples, November 5, 2020

B. Sugarcane Planter (3)

1. Kevin Villanueva - Sugarcane Growing, February 8, 2020 - BG Manlapaz
2. R. Valencia Jr. - Pest Damage Assessment, July 15, 2020 - A. Casupanan
3. G. Agapito - Pest Damage Assessment, July 24, 2020 – A. Casupanan

C. Private Entity (1)

1. ZoomLion Agric. Machineries (Bernie Bituin) - Farm machineries, - June 06, 2020 - B.G. Manlapaz, P. Macsmos, Jr., L.O. Olalia

II. Workshops/Seminars/Training/Conferences/Conventions (35)

1. Identifying an unknown fungal plant pathogen: an overview and step-by-step guide to writing scientific papers that report new pathogen occurrence, University of Los Baños, February 14, 2020 - A. Casupanan, A. Alviar
2. Harmonization of Soils Laboratory Procedures, Bacolod, February 17-21, 2020 - J. Mapano, J. Bernardino, M. Echavez

Webinars attended:

1. *Webinar on Food Security Challenges and Opportunities Under the New Normal, DOST-PCARRD, June 30, 2020, AARD staff*
2. *Statistical Tools and Data Analysis, Data Science Era, August 25, 2020, R. Sarol*
3. *Plant Virology and Phytoplasmatology Virtual Scientific Session, PPL-IPB, September 04, 2020, AARD Staff*
4. *Concepts and Development in the Area of Pesticide Residue and Maximum Limits for Crops, DA-BAFS, September 14, 2020, R. Sarol & MV Serrano*
5. *Herbicide Resistance Management and Mode of Action Labeling, Croplife Philippines, September 16, 2020, R. Sarol & BG Manlapaz*
6. *Mode of Action Labeling and Fungicide Resistance Management: Session 3, Croplife Philippines, September 21, 2020, AARD Staff*
7. *Introduction to Infographics, Canva Computing Channel, September 28, 2020, R. Sarol*
8. *International Webinar - Soil Spectroscopy: An Emerging Technique for Rapid Soil Health Assessment, ICAR-Indian Institute of Soil Science, Bhopal, October 01, 2020, AARD Staff*
9. *"Launch of the Global Soil Doctors Programme", Food and Agriculture Organization of the UN, October 05, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
10. *"Building Soil Carbon and Soil Tilth for Water Conservation", Climate and Agriculture Initiative BC, October 06, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
11. *Social Media Management for Government Agencies – Communicate and Keep Clients Updated, October 14, 2020, AARD Staff*
12. *Standards 101: Basic principles in standards Development (World Standards Day), Department of Agriculture-Bureau of Agriculture and Fisheries Standards, October 15, 2020, MV Serrano, R. Sarol, R. Locaba, J. Vicente, A. Alviar*

13. *FPA Webinar Series Episode1, Climate and Agriculture Initiative BC, October 20, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
14. *Nematodes in sugarcane: Friend of Foes and How much we Know, Sugar Research Australia, October 21, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
15. *Fall Armyworm: Status and Management Strategies, Croplife Philippines, October 22, 2020, AARD Staff*
16. *"Partnership between higher education and Agriculture: Developing a culture of excellence in research, teaching and extension", FPAA, October 23, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
17. *"Climate Smart and Conservation Agriculture for Sustainable Intensification", UPLB-BioMech, October 29, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
18. *Muscovado about tissue culture and biotechnology, SRA-NEDA, October 29, 2020, AARD Staff*
19. *"A webinar series on smarter technologies, practices, and innovations for agriculture", SARAi, November 4, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
20. *5th National R&D Conference, DOST-PCARRD, November 9-11, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
21. *Nature with Nurture: Plant Breeding for food Security in the midst of the Pandemic, Plant Breeding for Food Security, November 13, 2020, AARD Staff*
22. *14th annual meeting and scientific forum, NAST, November 19, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
23. *Learning Resource Center: Basic experimental design, UPLB, November 22, 2020, AARD Staff*
24. *Enhancing Sugarcane productivity using adaptable variety on specific location and fertilization scheme, SARAi, November 23, 2020, AARD Staff*
25. *Basic Statistical Tools and Techniques in Research Session 1 entitled: Move On From Your EX-periment: Basic Experimental Design, November 23, 2020, AARD Staff*
26. *Basic Statistical Tools and Techniques in Research Session 2 entitled: It's Not Complicated: Analysis of Data from A Single, Two or More Populations, November 25, 2020, AARD Staff*
27. *Basic Statistical Tools and Techniques in Research Session 3 entitled: Are We CORRRELATED? Relationship Among Variables, November 27, 2020, AARD Staff*
28. *Issuance of Licenses to Fertilizer and Pesticide Handlers, FPA, November 24, 2020, AARD Staff*
29. *School-based Community online Learning Seminar: Practicing Safe and Responsible Use of Pesticides", Croplife Philippines, November 25, 2020, AARD Staff*
30. *The Stalk Talk: Getting the most from PHILSURIN Varieties Webinar, Philippine Sugar Research Institute, November 26, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*
31. *2020 Nat'l In-House Review, SRA-LAREC, December 3-4, 2020, AARD Staff*
32. *30th Virtual Regional Symposium on R&D Highlights (RSRDH), WESVARRDEC, December 08, 2020, R. Sarol, AM Casupanan, V. Serrano*
33. *Writing research article for journal publication, Benguet State University, December 17, 2020, R. Sarol, R. Locaba, J. Vicente, A. Alviar*

III. Agency Meetings Attended (23)

1. *MANCOM, Quezon City, January 21, 2020, MV Serrano*
2. *Meeting with the cooperator for the Phosphorus study, Tarlac Mill District, Victoria, Tarlac, January 27, 2020, BG Manlapaz*
3. *Gawad Saka Meeting, SRA Quezon City, March 3, 2020, BG Manlapaz*
4. *MANCOM (zoom) meeting, April 13, 2020, MV Serrano*
5. *Calcitic Lime Project (zoom) meeting with SRA Administrator, May 21, 2020, B. Manlapaz/R. Locaba*
6. *RDE (zoom) meeting with Atty. Santillana, June 19, 2020, MV Serrano*
7. *SIDA-TWG and Focal Person, July 20, 2020, MV Serrano*
8. *SRA Safety and Health Committee Meeting, September 15, 2020, AM Casupanan*
9. *Initial Meeting Pre-In House Review, September 30, 2020, MV Serrano*
10. *BAC Regular Meeting, BG. Manlapaz*

1. July 6 & 28, 2020 *3. September 3, 11 & 15, 2020* *5. December 17, 2020*
2. August 7 & 24, 2020 *4. October 01, 12, 13, 14, 20 & 27, 2020*

PERSONNEL COMPLEMENT (18)	
Ma. Vina A. Serrano	- Senior Science Research Specialist
Benjamin G. Manlapaz	- Senior Science Research Specialist
Agnes M. Casupanan	- Science Research Specialist II
Patricio R. Macamos, Jr.	- Science Research Specialist II, detailed to ASSD/ABE
Nestor C. Guiyab	- Agriculturist II, detailed from ESD
Josephine Mapano	- Chemist II (Bukidnon Soil Laboratory)
Joylene Bernardino	- Chemist I (Davao Soil Laboratory)
Maribel P. Serrano	- Laboratory Technician I
Eller P. Serrano	- Clerk III
Nida B. Mangila	- Science Aide
Myrna Echavez	- Chemist II (JO)
Jerrimae Vicente	- Science Research Specialist (JO)
Rachel Sarol	- Science Research Specialist (JO)
Aldrin Alviar	- Science Research Specialist (JO)
Rose Diane Locaba	- Science Research Specialist (JO)
Hermogene Tangara	- Agricultural Technologist (JO)
Lilian T. Baculio	- Clerk III (JO)
Christian Jay Ampong	- Science Aide (JO)

LA GRANJA AGRICULTURAL RESEARCH CENTER (LGAREC)

HIGHLIGHTS

PRODUCTION TECHNOLOGY AND CROP MANAGEMENT (PTCM) SECTION

Significant findings of researches and activities of the Production Technology and Crop Management Section

- On yield performance and ripening characters of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 under different ages at harvest, Phil 2007-2081 out yielded Phil 2007-0359, Phil 2008-0909 and the check variety Phil 8013 in terms of cane and sugar yield. Sugar rendement (LKg/TC) was significantly influenced by age at harvest with the highest value observed on canes harvested 13 months after planting.

  Age at harvest significantly influenced per cent brix and pol with highest data observed on 13 months old canes. The same trend was observed on purity.

- Results on tolerance of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 to waterlogged condition showed that Phil 08-0909, Phil 00-8013, and Phil 07-0359 have the highest cane yield means of 144.65, 127.01, 125 TC/Ha. Phil 08-0909, Phil 00-8013, and Phil 07-0359 obtained higher sugar yields means of 337.11, 307.75, and 294.91 respectively.

- On yield performance of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 at different seasons of planting, result showed that tonnage (TC/Ha) was independently influenced by variety. Phil 2008-0909 gave significantly higher tonnage. Sugar rendement was highest on canes planted during the late season. Phil 2007-2081 got the highest sugar rendement of 2.44 LKg/TC.

- On growth and yield of Phil 99-1793, Phil 2000-0791 and Phil 2006-2289 at different furrow distance and planting density, furrow distance of 1.3 meters produced taller and heavier stalks while narrow spacing of 1.0 meter had the most number of millable stalks.

- On the response of Phil 99-1793 to application of NPK fertilizer combinations partitioned in different amount and time of application in Guimbalaon sandy loam soil, combined application of Urea (46-0-0), Di-Ammonium Phosphate (18-46-0) and Muriate of Potash (0-0-60) (C_1) had significantly higher tonnage of (79.25 TC/Ha) and sugar yield (174.62 LKg/Ha).

- Cane and sugar yield of Phil 2008-0909 were highest on plots fertilized with 225 N, 75 P and 0 K. Highest net benefit was observed on N fertilization of 225 Kg/Ha.

- Ratooning decreased cane and sugar yield of the five varieties except for Phil 2007-0359 which showed an increase compared to plant cane. Sugar rendement showed significant differences among varieties. A higher LKg/TC was observed in the first and second ratoon except for Phil 2006-1899. An average savings of PhP 43,456.36 was obtained from the ratoon crops compared to plant cane.

The PTCM staff acted as resource speakers/presenters in the following seminars/technical fora

- Teresita B. Bañas and Ma. Theresa D. Alejandrino acted as resource speakers during Muscovado Webinar Series. Topics: land and planting materials preparation, planting, replanting, cultivation, fertilizer management, harvesting, ratooning and methods of rapid HYVs propagation.

- PTCM staff presented technical papers/proposals during SRA RDE Virtual In-House Review and WESVARRDEC 13th Regional Symposium - Teresita. B. Bañas, Ma. Theresa D. Alejandrino, Andy Alimpulos, Rinzo D. Valdeviezo and Ramon de Jesus.

Micropropagated plantlet and BMO Production

- As of December 16, 2020 total of 127,125 hardened micropropagated plantlets were released and distributed to various recipients/mill districts. From these released plantlets, 17,950 were sold and 109,175 were given for demo/propagation/experiment purposes. The remaining 30,000 are stocked in the nursery and being reserve for LGU Bayawan City.
- Beneficial Microorganism (BMO) production – A total of 1,844.80 gallons were

produced and disposed to Farm Services Unit, farmer' associations, planters, Micro propagation nursery and PTCM Unit.

COMPLETED RESEARCHES:

1. Yield performance and ripening characters of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 under different ages at harvest – T.B. Bañas, A.C. Alimpulos, Rinzo G. Valdevieso, R.de Jesus and A. Carpentero
2. Yield performance of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 at different seasons of planting - T.B. Bañas, A.C. Alimpulos, Rinzo G. Valdevieso, R.de Jesus and A. Carpentero
3. Tolerance of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 to waterlogged condition.- T.B. Bañas, A.C. Alimpulos, Rinzo G. Valdevieso, R.de Jesus and A. Carpentero
4. Response of Phil 2006-1899 to varying levels of NPK fertilization in Guimbalaon sandy clay loam soil. T.B. Bañas, A.C. Alimpulos, Rinzo G. Valdevieso, R.de Jesus and A. Carpentero
5. Growth and yield of Phil 99-1793, Phil 2000-0791 and Phil 2006-2289 at various furrow distances and planting densities (Plantcane) T.B. Bañas, A.C. Alimpulos, Rinzo D. Valdevieso, R.de Jesus and A. Carpentero
6. Ratooning capacity of new sugarcane high yielding varieties – M.T.D. Alejandrino
7. Response of Phil 99-1793 to Application of NPK Fertilizer Combinations Partitioned in Different Amount and Time of Application in Guimbalaon Sandy Loam Soil (Plant and Ratoon Crop) Andy C. Alimpulos, Solena B. Tahum, Teresita B. Bañas, Ramon E. De Jesus Jr., and Rinzo D. Valdeveiso

CONTINUING RESEARCHES:

1. Yield performance of Phil 2008-1009, Phil 2009-1567 and Phil 2010 0149 at different seasons of planting
2. Tolerance of varieties to natural drought condition (Phil 2009-0359, Phil 2008-0909)
3. Tolerance of varieties to waterlogged conditions ((Phil 2009-1969, Phil 2009-1567, Phil 2009-0919 and Phil 2010-0149).
4. Improving ratoon performance of HYV.
5. Fallowing: It's Effect on Sugarcane Yield and Economic Feasibility (PC).
6. Yield evaluation on Phil 2006-2289 inoculated with different beneficial nitrogen fixers.
7. Canepoint production of Phil 99-1793 & Phil 2006-2289 micropropagated plantlets at different furrow distance.
8. Yield performance of high yielding varieties under ages at harvest.
9. Assessment of sugarcane-rice intercropping system.
10. Ratooning Capacity of Phil 2008-1009, Phil 2009-1567 and Phil 2010-0149.

SUPPORT SERVICES

- Micropropagation of Phil 99-1793, 2000-0791, 2006, 2007 and 2008 series
- Production of beneficial microorganisms

PERSONNEL COMPLEMENT OF THE SECTION (9)		
	Personnel	**Position**
1	Teresita B. Bañas M. S. Nematology	Sr. Science Research Specialist
2	Ma. Theresa D. Alejandrino B.S. Biology	Science Research Specialist II
3	Lolita G. Tuazon B.S. Commerce	Laboratory Technician II
4	Andy C. Alimpulos B.S. Agriculture	Junior Agriculturist (J.O.)
5	Rinzo D. Valdevieso B.S. Agriculture	Research Assistant (J.O.)
6	Ramon de Jesus B.S. Agriculture	Research Assistant (J.O.)
7	Arvin Carpentero B.S. Agriculture	Research Assistant (J.O.)
8	Joefrey D. Muya B.S. Agriculture	Science Aide (J.O.)
9	Billy Albay B.S. Agriculture	Laboratory Technician (J.O.)

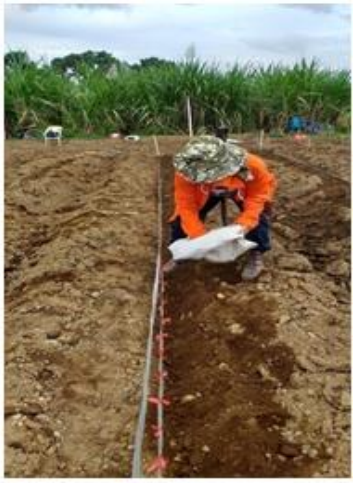
PICTORIALS OF PTCM ACTIVITIES

Ratoon performance of SRA HYVs at Central Philippines State University, Kabankalan City.

Harvesting of experiment on fallowing.

Setting up of irrigation for water logged study.

Lay out of experiment



Planting of rice as intercrop for sugarcane

Planting of sugarcane seedpieces

Production of beneficial microorganisms (BMO)

Production of micropropagated plantlets of high yielding varieties

TECHNICAL REPORT OF COMPLETED STUDIES

RATOONING CAPACITY OF NEW SUGARCANE HIGH YIELDING VARIETIES

Ma. Theresa D. Alejandrino

ABSTRACT

The study was conducted at SRA-LGAREC, La Granja, La Carlota City, Negros Occidental using Phil 2006-1899, Phil 2006-2289, Phil 2007-0359 and Phil 2007-0563.Phil 2000-0791 was included in this study in consonance with the previous result and to further the conclusion that it is a good ratooner variety.

The experiment was laid out in Randomized Complete Block Design (RCBD) replicated four times using 6 rows by 9 meters experimental plots.

No significant differences were shown on the data of the plant cane for the cane (TC/Ha) and sugar yield (LKg/Ha) of the test varieties. The highest cane and sugar yield were observed on Phil 2000-0791(124.49) and Phil 2006-1899(243.83), respectively. Sugar rendement of plant cane showed significant differences among the varieties.

Ratooning decreased cane and sugar yield of the five varieties except for Phil 2007-0359 which showed an increase compared to plant cane. Sugar rendement showed significant differences among varieties. A higher LKg/TC was observed in the first ratoon and second ratoon except for Phil 2006-1899.

Cane yield of the first ratoon crop showed significant differences. Phil 2000-0791 obtained significantly higher yield of 102.80 TC/Ha comparable to Phil 2007-0359 and Phil 2006-1899. Phil 2006-2289(77.50) gave the lowest TC/Ha comparable with Phil 2007-0563 and Phil 2006-1899. In the second ratoon crop, comparable results were obtained which ranged from 69.91 to 90.73 TC/Ha.

In the sugar rendement, Phil 2007-0359 and Phil 2007-0563 gave significantly higher values at 2.30 and Phil 2006-2289(2.24) than Phil 2000-0791 and Phil 2006-1899 both at 2.00LKg/TC in the first ratoon. In the second ratoon, Phil 2006-2289(2.27) gave the highest LKg/TC than the rest of the varieties.

The resultant sugar yield did not give significant results for the first and second ratoon crops. Lower yield was observed for the ratoon crops compared to plant cane except for Phil 2007-0359 in the first ratoon which was higher than the plant cane. The highest average sugar yield was obtained at Phil 2000-0791(210.04LKg/Ha) and the lowest was at Phil 2006-2289(183.20).

An average savings of PhP 43,456.36 was obtained from the ratoon crops compared to plant cane.

GROWTH AND YIELD OF PHIL 99-1793, PHIL 2000-0791 AND PHIL 2006-2289 AT DIFFERENT FURROW DISTANCE AND PLANTING DENSITY (PLANT & RATOON CROP)

Teresita B. Bañas, Solena B. Tahum, Andy Alimpulos, Rinzo Valdevieso and Ramon De Jesus Jr.

ABSTRACT

Several studies were conducted for cultural packaging of SRA's high yielding sugarcane varieties. The experiment was conducted to evaluate the growth and yield performance of Phil 99-1793, Phil 2000-0791 and Phil 2006-2289 at different furrow spacings and planting densities. It was laid out in December 2017 following the strip split plot design.

Stalk length and number of millable stalks were individually influenced by variety and furrow distance. Phil 2000-0791 and Phil 99-1793 got higher data. Furrow distance of 1.3 meter produced taller and heavier stalks. Numbers of millable stalks were higher in narrow spacing of 1.0 meter.

On yield parameters, significant differences among treatments were only observed in plant cane. Phil 2000-0791 and Phil 99-1793 significantly out yielded Phil 2006-2289 in terms of cane yield (TC/Ha). However, LKG/TC was significantly higher on the later.

Significant interaction was observed on furrow spacing and planting density during the plant crop. Furrow distance of 1.0 meters and planting density of 4.0 lacsas per hectare is recommended for all three varieties. Adapting wider furrow distance (1.3 meters) should be compensated with heavier planting density (5.0 lacsas per hectare). While on the ratoon crop, cane yield (TC/HA) and sugar yield (LKg/Ha) were not significantly affected by different furrow spacing and planting densities.

Keywords: furrow distance, planting density, high yielding variety

TEST VARIETIES

Phil 2000-0791
(Phil 85-23-4345 x Phil 8943)

Habit of growth : Erect and fast grower
Flowering: Very sparse to sparse (can be planted anytime of the year
Leaf characteristics: It is semi-self detrashing with medium sized curved near tip leaf blades.
Stalk characteristics: Moderate length, medium size, waxy, cylindrical, yellowish green stalks with presence of corky cracks
Yield characteristics: Medium to high sucrose; high tonnage
Yield potential : 2.0 LKg/TC; 136.94 TC/Ha
Reaction to diseases: Resistant to smut, downy mildew and leaf scorch.
Performs best in La Carlota Mill District significantly outyielding Phil 8013 in LKg/Ha. Very good ratooner.

Phil 2006-2289
(Phil 98-258-3403 x Phil 8477)

Habit of growth – Erect to and fast grower
Flowering – Very sparse
Leaf characteristics – Medium size, erect with drooping tips , leaf sheath with soft long sparse trichomes. Self detrashing
Stalk characteristics – Medium (2.89cm) very waxy, yellowish green stalks with shades of purple.
Yield characteristics – High sucrose (2.15 LKg/TC and above); High tonnage (100TC/Ha and above).
Reaction to diseases Resistant to smut, downy mildew and leaf scorch.
Widely adaptable showing comparable results with VMC 86-550 in 4 locations and Phil 8013 in Bais, Victorias and Passi Mill Districts

Phil 99-1793
(Phil 93-236-3301 and Phil 8477)

Habit of growth : Good germinator and is erect to recumbent
Flowering: No flowering observed
Leaf characteristic: Broad drooping leaf blased. Leaf sheaths are greenish purple with an inner unciform auricle with very few trichomes. Self detrashing
Stalk characteristic: Medium size, waxy, cylindrical, dark yellowish purple stalks with corky crack patches. Round eyebud with wings
Yield chacteristics: Medium to high sucrose, high tonnage Yield potential: 2.12 LKg/TC; 170. 69 TC/Ha
Reaction to diseases: Resistant to downy mildew, moderate to smut and yellow spot
Performs best in SONEDCO, Mabinay and Passi Mill District in LKg/Ha significantly outyielding Phil 8013 and Phil 8477.

Response of Phil 99-1793 to Application of NPK Fertilizer Combinations Partitioned in Different Amount and Time of Application in Guimbalaon Sandy Loam Soil (Plant and Ratoon Crop)

Andy C. Alimpulos, Solena B. Tahum, Teresita B. Bañas,
Ramon E. De Jesus Jr., and Rinzo D. Valdeveiso

ABSTRACT

The study was conducted at Sugar Regulatory Administration (SRA), La Granja Agricultural Research and Extension Center (LGAREC), La Carlota City, Negros Occidental from December 2017 to December 2019 on Guimbalaon sandy loam soil. The experiment followed the split plot in randomized complete block design (RCBD) with NPK fertilizer combinations as main plots and partitioning/time of application as subplots. Plot size was 6 rows by 9 meters replicated four times.

Results revealed that the application of different NPK fertilizer combinations partitioned in different amount and time of application had no significant effect on the growth of Phil 99-1793 in plant and ratoon crops.

Cane yield (TC/Ha), and sugar yields (LKg/Ha) of Phil 99-1793 differed significantly only at the ratoon crops. Significant results were not observed on the partitioned amount/time of application but with the various NPK fertilizer combinations. Combined application of Urea (46-0-0), Di-Ammonium Phosphate (18-46-0) and Muriate of Potash (0-0-60) (C1) had significantly higher tonnage of (79.25 TC/Ha) and sugar yield (174.62 LKg/Ha). While comparably lower tonnage and sugar yield were obtained from combined application of Urea (46-0-0), Rock Phosphate plus 25% Di-Ammonium Phosphate (18-46-0) and Muriate of Potash (0-0-60) (C2) and Urea (46-0-0), 50 % Rock Phosphate plus 50% Di-Ammonium Phosphate (18-46-0) and Muriate of Potash (0-0-60) (C3) respectively.

Results obtained from the study indicated that yield of Phil 99-1793 response significantly only on the different fertilizer combinations in ratoon crop, regardless of its partitoned amount (split or full dose) and time of application (at planting, 45 DAP and 95 DAP).

Keywords: NPK fertilizers, partitioned amount, time of application

Test Variety

Phil 99-1793
(Phil 93-236-3301 and Phil 8477)

Habit of growth : Good germinator and is erect to recumbent
Flowering: No flowering observed
Leaf characteristic: Broad drooping leaf blased. Leaf sheaths are greenish purple with an inner unciform auricle with very few trichomes. Self detrashing
Stalk characteristic: Medium size, waxy, cylindrical, dark yellowish purple stalks with corky crack patches. Round eyebud with wings
Yield chacteristics: Medium to high sucrose, high tonnage Yield potential: 2.12 LKg/TC; 170. 69 TC/ Ha
Reaction to diseases: Resistant to downy mildew, moderate to smut and yellow spot
Performs best in SONEDCO, Mabinay and Passi Mill District in LKg/Ha significantly outyielding Phil 8013 and Phil 8477.

YIELD PERFORMANCE AND RIPENING CHARACTERS OF PHIL 2007-2081, PHIL 2007-0359 AND PHIL 2008-0909 UNDER DIFFERENT AGES AT HARVEST

Teresita B. Bañas, Andy C. Alimpulos, Ramon E. De Jesus Jr.,
Rinzo D. Valdevieso and Arvin S. Carpentero

ABSTRACT

One of the banner programs of the Sugar Regulatory Administration is the production of high yielding and pests' resistant varieties. The continuing endeavour produces potential varieties for release to planters and stakeholders. Varieties are subjected to various trials for its total packaging prior to release. The Production Technology and Crop Management Unit handle the agronomic trials for new high yielding varieties. Thus, a study was conducted at the La Granja Agricultural Research and Extension Center, La Granja, La Carlota City from December 2018 to February 2020 to evaluate the yield performance of the promising varieties from 2007 and 2008 series at different ages at harvest. Ages at harvest were set 11, 12 and 13 months after planting

Yield parameters such as cane yield (TC/Ha) and sugar yield (LKG/Ha) were significantly influenced by variety with Phil 2007-2081 out yielding Phil 2007-0359, Phil 2008-0909 and the check variety Phil 8013. On the other hand, sugar rendement (LKg/TC) was significantly influenced by age at harvest. Highest value was obtained from canes harvested 13 months after planting.

Age at harvest significantly influenced per cent brix and pol with highest data observed on 13 months old canes. The same trend was observed on purity and fibre however, significant interaction between variety and ages at harvest was observed.

Based on the results of the study, tests varieties Phil 2007-2081 Phil 2007-0359 and Phil 2008-0909 could be harvested at ages 11 and 12 months after planting.

Keywords: Age at harvest, tonnage, sugar rendement, sugar yield, brix, % pol, purity, fibre.

TEST VARIETIES

Fig. 1. Phil 2008-0909
Potential yield: 263.94 LKg/Ha in La Carlota Mill District
Tonnage - High
LKg/TC - Medium to high
Not flowering to sparse flowering
Resistant to smut, downy mildew, leaf scorch and yellow spot

Fig. 3 Phil 2007-0359
Potential yield : 412.52 LKg/Ha in Bais Mill District
Tonnage - High
LKg/TC – Medium to high
Sparse flowering
Resistant to smut, downy mildew and leaf scorch

Fig. 3 Phil 2007-2081
Potential yield: 444.93 LKg/Ha in Bais Mill District
Tonnage - High
LKg/TC - medium to high
Sparse flowering
Resistant to smut, downy mildew and leaf scorch

Tolerance of Phil 2007-2081, Phil 2007-0359 and Phil 2008-0909 to Waterlogged Condition

Arvin S. Carpentero , Teresita B. Bañas, Andy C. Alimpulos, Rinzo D. Valdevieso and Ramon E De Jesus

ABSTRACT

Floods result in waterlogging and reduced sugarcane yield from 15 – 25 % and can exceed to 40 %. The current study was conducted during December 2018-2019 cropping season at the SRA La Granja Experimental Station to evaluate the resiliency of sugarcane HYV to waterlogging conditions. Four sugarcane high yielding varieties with four replicates were naturally imposed to waterlogging conditions during stalk elongation stage.

Results showed significant differences in number of tillers, number of internodes, stalk length, millable stalks, cane yield, and sugar yield while there were no varietal differences observed in plant height and stalk diameter, % brix, % pol, % apparent purity, and sugar rendement.

Phil 07-2081 had the highest tiller count mean of 7.05 followed by Phil 00-8013 with 6.73 tillers. Phil 07-0359 had the highest internode mean counts of 9.15 while Phil 00-8013 had the lowest mean counts of 6.93. Phil 00-8013, Phil 07-0359, Phil 08-0909 had the highest stalk length means of 352.00, 340.80, and 340.70 cm while Phil 07-2081 had the lowest stalk length means of 284.43 cm. Phil 08-0909 had the highest millable cane count means of 109,375 counts/ha while Phil 07-2081 had the lowest millable cane count means of 77,083 counts/ha. Phil 08-0909, Phil 00-8013, and Phil 07-0359 have the highest cane yield means of 144.65, 127.01, 125 TC/Ha while Phil 07-2081 had the lowest cane yield mean of 96.74 TC/Ha.

Sugar yield varied 81 % among varieties with Phil 08-0909, Phil 00-8013, and Phil 07-0359 obtained higher sugar yields means of 337.11, 307.75, and 294.91 while Phil 07-2081 remained to have the lowest yield mean of 225.53 lkg/ha.

Keywords; Waterlogging, morpho-physiological characters, cane yield, sugar yield, Sugarcane spp.

YIELD PERFORMANCE OF PHIL 2007-2081, PHIL 2007-0359 AND PHIL 2008-0909 AT DIFFERENT SEASONS OF PLANTING

Ramon E. De Jesus Jr, Teresita B. Bañas, Andy C. Alimpulos, and Rinzo D. Valdevieso

ABSTRACT

The study was conducted at the La Granja Agricultural Research and Extension Center, La Granja, La Carlota City from October 2018 to May 2020 to evaluate the yield performance of the promising varieties from 2007 and 2008 series at different season of planting for its cultural packaging. Three sets of lay out were set up adjacent to each other. The first set was planted in October (early season), the second set was in February (middle season) and lastly was in May (late season). The lay-out followed a 3x3 split plot design. Season of planting was designated as factor A and Test Varieties as factor B. Plot size was set at 6 rows x 9 meters in length and replicated three times. Each treatment and replications were separated by gaps.

Result showed that tonnage (TC/Ha) was independently influenced by variety. Phil 2008-0909 gave significantly higher tonnage of 153.10 TC/Ha compared to Phil 2007-2081 having 103.37 TC/Ha., however, no significant findings on season of planting.

Sugar rendement significantly influenced by planting season, higher sugar rendement was observed during late season with an average of 2.59 Lkg/TC. However, among the varieties Phil 2007-2081 got highest sugar rendement with an average of 2.44 Lkg/TC compare to Phil 2007-0359 and Phil 2008-0909. No significant difference was observed on varieties.

Significant interaction between variety and season of planting was observed.

RESPONSE OF PHIL 2008-0909 TO VARYING LEVELS OF NPK FERTILIZATION IN GUIMBALAON CLAY LOAM SOIL

Teresita B. Bañas / Solena B. Tahum/ Andy C. Alimpulos
Rinzo D. Valdevieso / Ramon de Jesus, Jr.

ABSTRACT

The study was conducted at SRA-LGAREC, La Granja, and La Carlota City from October 2018 to October 2019 to evaluate the response of Phil 2008-0909 to varying levels of Nitrogen, Phosphorus, and Potassium fertilization in Guimbalaon sandy clay loam soil. Each set of experiment had four treatments replicated four times and arranged in a randomized complete block design. The treatments consisted of four levels of fertilization for each set: 0, 75, 150, and 225 kg N/Ha; 0, 75, 150, and 225 kg P2O5/Ha; 0, 60, 120, and 180 kg K2O/Ha.

Cane and sugar yields of Phil 2008-0909 were not significantly influenced by Nitrogen, Phosphorus and Potassium fertilization. Although not significant, highest cane and sugar yield in NPK fertilization were obtained at 225 kg N/Ha, 75 kg P2O5 and 0 kg K2O/Ha respectively.

The highest net benefit from Nitrogen fertilization of Phil 2008-0909 grown in Guimbalaon sandy clay loam soil was obtained at 225 kg N/Ha; while in Phosphorus and Potassium fertilization, the highest net benefit were obtained at lower rate of 75 kg P2O5 and 0 kg K2O/Ha.

Keywords: NPK, fertilization, levels, sugarcane

VARIETY IMPROVEMENT AND PESTS MANAGEMENT (VIPM) SECTION

HIGHLIGHTS OF ACCOMPLISHMENTS FOR YEAR 2020

For the year 2020, the Variety Improvement and Pest Management (VIPM) Section has 35 projects. Of these, 12 were completed, 15 on-going (12 on different stages of Breeding program and 3 on Genomics), and 8 deferred (6 Phil 2016 Series and 2 Genomics).

PROJECTS UNDERTAKEN/COMPLETED/ON-GOING

A. COMPLETED PROJECTS

1. Pollination, Sowing and Seedling Care, Phil 2019 Series

During the 2019 breeding season, flowering of parental clones and varieties was late but of long duration with peak of full emergence observed on the last week of October to first week of November 2019.

Pollination work started October 16 and ended November 30, 2019, utilized 74 female and 47 male selected parents. A total of 314 arrows from 225 biparental cross combinations were pollinated. From these, 312 arrows from 225 biparental crosses were harvested with 2 arrows destroyed.

The sowing of fuzz in 225 seedboxes from November 22 to December 16, 2019 resulted in the germination of seedlings in 224 biparental crosses consisting of 310 arrows. Medium to very good germination was observed in 50.22 percent of the crosses. Overcrowded seedlings in 113 parental crosses were pricked in 318 seedboxes.

Seedlings in 542 seedboxes were given proper care and management like regular watering, fertilization, spraying of insecticides and fungicides, trimming of leaves, weeding and cultivation prior to transplanting in May to June 2020.

2. Single Seedling Plot Test, Phil 2018 Series

The 2018 hybridization work which produced a total of 74,867 seedlings from 221 bi-parental crosses were transplanted from May 24 to June 19, 2019. From these, 35,573 seedlings from 221 bi-parental crosses survived in the field with a survival rate of 47.51%.

Selection in March 2020 using Phil 56-226 as control variety gave 848 promising clones from 133 bi-parental crosses. This result showed a selection percentage of 2.38% for seedlings and 60.18% for the crosses. The high percentage selection was attributed to better parental selection and some modifications in cultural practices employed. All selected promising clones were recommended to the next stage, the Row Test, for further screening.

3. Row Test, Phil 2017 Series

Row Test, Phil 2017 Series was conducted in April 2019 to March 2020 as the 4th stage of the Breeding Program of SRA-LGAREC where 1,082 clones were selected from the 130 crosses in Phil 2017 Series Single Seedling Plot Test. From these, 345 clones with good agronomic characteristics based on brix reading, average tiller per stool, average diameter, weight per stalk and flowering observation were selected for the next stage of the Breeding Program, the Multiplication and Disease Screening Stage.

4. Multiplication and Disease Screening

Phil 2017 Series

Three hundred forty five (345) Phil 2017 Series clones selected from Row Test, Phil 2017 Series were multiplied (Multiplication I) and simultaneously tested for smut. Multiplication I was laid out and planted in January 2020.Care and maintenance of sugarcane plants were done based on SRA cultural practices. One hundred seventy clones were selected for Multiplication II and Downy Mildew screening in September 2020 based on their agronomic and morphological characteristics. Multiplication I, Phil 2017 Series started in January 2020 and ended in December 2020.

5. Smut Resistance Test

Phil 2017 Series at Row Test

Three hundred forty five (45) Phil 2017 clones selected from the Row Test and two check varieties were inoculated with smut spores to test their resistance to the disease. These were incubated for two days and planted in plastic bags at 20 replicates for each clone. Collection of data was done one month after planting and bi-monthly thereafter until six months. Results showed that 113 clones were very highly resistant, 22 highly resistant, 36 resistant, 68 intermediate resistant, 22 intermediate average, 23 intermediate susceptible, 20 susceptible, 11 highly susceptible and 30 very highly susceptible to the disease. Only resistant clones will be further tested to downy disease.

6. Downy Mildew Resistance Test, Phil 2016 Series (Plant Cane &Ratoon)

One hundred ninety Phil 2016 Series clones selected from the First Multiplication Stage of the Sugarcane Variety Improvement Program were evaluated for their resistance to downy mildew disease of sugarcane. The test was laid out in October 2019 to December 2020 following the natural method of infection under La Granja conditions. The method consisted of planting naturally infected canes or spreader rows. Seeds of sweet corn were drilled within the spreader rows to serve as additional source of infection. Result of the plant cane showed that 181 clones were very highly resistant, 6 highly resistant, 1 resistant, 1 intermediate resistant and 1 intermediate average to the disease. In the ratoon crop, 176 clones were very highly resistant, 7 highly resistant, 4 resistant, 2 intermediate resistant and 1 susceptible to the disease. Clones with ratings 1-3 in the plant cane were recommended for further testing in the next stage.

7. Propagation I, Phil 2015 Series

Thirty promising PHIL 2015 Series clones/varieties were propagated in SRA-LGAREC from March 2020 to October 2020. These were cut-backed and the canepoints produced were further propagated to increase number of planting materials needed for the Ecological Test in different locations nationwide. Ratoons of these clones/varieties were also maintained and cultured to facilitate additional supply of planting materials.

8. Propagation III, Phil 2014 Series

Ten selected varieties of PHIL 2014 Series were planted and propagated in SRA-LGAREC from January 2020 to December 2020 in preparation for the Ecological Test in different locations. The varieties are: Phil

2014-0267, Phil 2014-0125, Phil 2014-0405, Phil 2014-0451, Phil 2014-0417, Phil 2014-0679, Phil 2014-0747, Phil 2014-0085, Phil 2014-0727 and Phil 2014-0013. Ratoons of these clones/varieties were also maintained and cultured to facilitate additional supply of planting materials.

9. Propagation III, Phil 2013 Series

Ten selected varieties of PHIL 2013 Series were planted and propagated in SRA-LGAREC from January 2020 to December 2020 in preparation for the Ecological Test in different locations. The varieties are: Phil 2013-0573, Phil 2013-0985, Phil 2013-1319, Phil 2013-1453, Phil 2013-0287, Phil 2013-0249, Phil 2013-0279, Phil 2013-1619, Phil 2013-1153 and Phil 2013-1627. Ratoons of these clones/varieties were also maintained and cultured to facilitate additional supply of planting materials.

10. Flower Induction Nursery

The project aims to induce flowering of potential varieties for parental purposes. Selected 44 potential varieties from the germplasm were ratooned last December 2020 in a humid and elevated place in Canla-on City. Nine varieties flowered out of the 44 selections, namely: Phil 90-60-0557, Phil 90-61-0567, Phil 93-1601, Phil 07-0563, Phil 07-0359, Phil 08-1009, Phil 11-0827, Phil 92-0051 and VMC 84-947.These were marcotted and utilized during the cross-pollination activity last November 2020. Plants were ratooned in the area.

11. Germplasm Collection, Characterization and Maintenance

One thousand two hundred sugarcane accessions were maintained in the Germplasm Collection for the year 2020. Eight hundred varieties/clones were characterized agronomically. Brix reading, tiller count, stalk diameter and flowering characteristics were gathered on the characterization to primarily provide information for selection of parent materials.

12. Sugarcane Disease Garden as Source of Inocula for Resistance Trials

Seven varieties namely: PHIL 6111, PHIL 7464, PHIL 7779, PHIL 8839, PHIL 8013, PHIL 56226, VMC 86550 and mixed clones were propagated last January 2020 to December 2020 to augment inocula for disease resistance studies. These varieties served as resistant and susceptible checks for resistance trials to smut, downy mildew, yellow spot and leaf scorch.

B. ON-GOING PROJECTS

1. Pollination, Sowing and Seedling Care, Phil 2020 Series

The crossing program for 2020 has the primary objective of producing high yielding and disease resistant varieties that could adapt to specific and wider ecologic zones of the country. As a secondary objective, the program aims to select parent materials with good combining ability, resistance to diseases and with good agronomic characteristics.

The 400 parent materials were planted/ratooned in a 2.7 hectare crossing block area from January to March 2020. One thousand four hundred stalks from 165 selected female parents were marcotted on the first week of September 2020. Pollination work started on the fourth week of October and ended on December 2020. Accordingly, sowing of fuzz started on November and ended on December of 2020. Seedling care will continue until the transplanting of seedlings on May to June 2021.

2. Single Seedling Plot Test, Phil 2019 Series

The 178,368 seedlings from 225 bi-parental crosses produced in the 2019 crossing program were transplanted in a 6.18 hectare-area from May 27 to July 14, 2020. Seedlings were transplanted singly along the furrows on holes previously made at a distance of one meter between furrows and 30 centimeters between seedlings. Three-eye cuttings of Phil 56-226 were planted every 20 seedlings to serve as control variety during selection work. Survival count one month after transplanting showed 35,573 seedlings survived in the field with a survival rate of 63.63%. Selection of promising clones will be done on March to April 2021.

3. Row Test, Phil 2018 Series

The field test was planted in March 2020 using 848 clones selected from the Single Seedling Plot test, Phil 2018 Series. Selection of promising clones shall be in January of next year.

4. Multiplication II, Phil 2016 Series

One hundred ninety clones from Multiplication I resistant to Smut were multiplied (Multiplication II) and simultaneously test for Downy Mildew. Multiplication II was laid out and planted in December 2019 but due to El Niño, planting materials for Phil 2016 Series projects were insufficient, the reason why these projects were not laid out this year. The project was ratooned in August 2020. The plants are now 4 months old. Downy Mildew resistant clones shall be selected and passed as entries for the Preliminary Yield Test and First Propagation preparatory to the Ecological Test. Cutbacking shall be done in February of next year. Sufficient canepoints shall be provided for leaf scorch and yellow spot screening and smut verification.

5. Multiplication and Disease Screening, Phil 2017 Series

Multiplication I was planted in January 2020 using 345 clones selected from Row Test, Phil 2017 Series. At the same time, eighty three-eyed canepoints per clone were tested for reaction to smut. The promising clones which passed the Smut Test were planted in the next stage, Multiplication II.

Multiplication II was planted in August 2020.The plants are now 4 months old. Downy Mildew resistant clones shall be selected and passed as entries for the Preliminary Yield Test and First Propagation preparatory to the Ecological Test. Cutbacking shall be done in February of next year. Sufficient canepoints shall be provided for leaf scorch and yellow spot screening and smut verification.

6. Preliminary Yield Test, Phil 2015 Series

Thirty selected Phil 2015 Series clones from Multiplication II were planted as entries in the Preliminary Yield Test last February 2020. The canes are now ten months old. Clonal entries for the Ecological Test shall be selected in March of next year.

7. Propagation II, Phil 2015 Series

Thirty promising Phil 2015 Series clones were planted and propagated in SRA-LGAREC last March 2020 in preparation for Propagation II. The canepoints to be produced will be further propagated to increase number of planting materials needed for the Ecological Test in different locations nationwide.

8. National Cooperative Test I (NCT I)

The project aims to evaluate the adaptability of new varieties selected from the Preliminary Yield Test or Ecological Test in a given location with specific climatic/soil/pathogen complex for registration to the National Seed Industry Council prior to commercial release. In addition, the project will determine the yield performance of the varieties in the plant and first ratoon cane in comparison with the standard and local check varieties in 15 locations (LAREC -7 and LGAREC, 8 locations).

The NSIC TWG will evaluate the results of the analyses and will recommend which varieties are to be dropped, released for commercial planting or for further testing. Recommendation will be done in the plant cane and after the first ratoon.

As of December 2020, fifteen locations have been established by SRA-LGAREC and LAREC. The eight locations established by LGAREC were in Bukidnon, Tolong, Bais, Ormoc, Passi, Bogo-Medellin, Sagay and La Carlota Mill Districts. Due to travel and other restrictions caused by Covid-19 pandemic, as of this writing, six locations for the plant cane and only one location for the ratoon crop were harvested.

Data gathered were consolidated and submitted to UP-La Granja for statistical analyses.

9. Downy Mildew Resistance Test, Phil 2017 Series (Plant Cane)

The study composed of 170 Phil 2017 Series clones was laid out in September 2020 and maintained in the field. Monthly disease ratings are taken until February 2020.

10. Smut Resistance Test at PYT Stage, Phil 2015 Series (Plant Cane &Ratoon)

The field test was ratooned last September 2020. Disease ratings are taken every month for six months.

11. Yellow Spot Resistance Test, Phil 2015 Series

Thirty clones of Phil 2015 Series were planted in February 2020 for yellow spot screening.

12. Leaf Scorch Resistance Test, Phil 2015 Series

Thirty clones of Phil 2015 Series were planted in February 2020 for leaf scorch screening.

C. DEFERRED PROJECTS

Projects not laid out due to lack of planting materials caused by El Niño to be laid out next year:

1. Preliminary Yield Test, PHIL 2016 Series
2. Propagation I, PHIL 2016 Series
3. Propagation II, PHIL 2016 Series
4. Smut Resistance Test, PHIL 2016 Series at PYT Stage
5. Yellow Spot Resistance Test, PHIL 2016 Series
6. Leaf Scorch Resistance Test, PHIL 2016 Series

Genome projects which were not started due to non-delivery of equipment needed:

1. Genomics Assisted Discovery of Genes and Molecular Markers for Important Traits in Selected Sugarcane HYVs
2. Molecular Screening of Putative Mutants for Desired Agronomic Traits and Sucrose Content

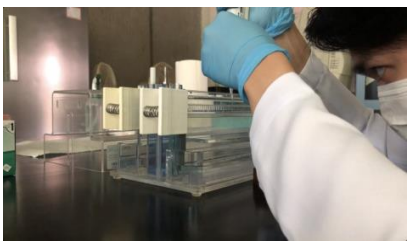
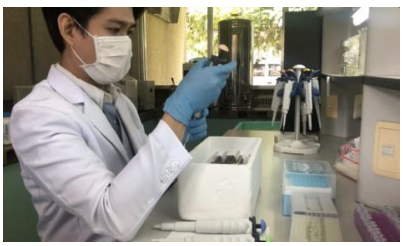
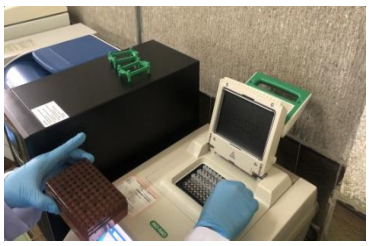
GENOME LABORATORY

Completed Research

The La Granja Agricultural Research & Extension Center (LGAREC) Genome Laboratory under the Variety Improvement & Pest Management (VIPM) Section concluded the research on the second fungal disease resistance primer, specifically on downy mildew. It produced the study **Evaluation of Simple Sequence Repeat Markers to Fungal Disease Resistance through Association Analysis in Sugarcane**, the only research paper from SRA that won in the recent Western Visayas Agriculture, Aquatic, and Natural Resources Research and Development Consortium (WESVAARRDEC) 30th Regional Symposium on Research and Development Highlights (RSRDH) under the Natural / Biological Science category. Three developed SSR primers were screened and the putative identities of the sequences were all related to fungal disease resistance. Preliminary analysis using the SSR primers across 82 accessions and check varieties revealed association of ten alleles to downy mildew resistance. All ten Downy Mildew Resistance Primer (DMRP) alleles identified were found to have association to sugarcane downy mildew resistance. A manuscript is currently being prepared with the previous paper on smut resistance primer for publication this 2021.

On-going Research

As part of the Sugarcane Variety Improvement Program (SVIP), the laboratory also started the DNA isolation and molecular characterization of National Cooperative Test (NCT) entries (Phil 2011 and Phil 2013) from Sagay City and Haguimit, La Carlota City.

New projects in the laboratory for 2020: (1) **Assessment of Genetic Diversity of Sugar Regulatory Administration Varieties** sought the DNA isolation of 200 accessions and varieties in the Germplasm collection and molecular screening across genotypes using fungal disease resistance markers; and (2) **Morpho-agronomic Characterization of SRA Plant Genetic Resources for Construction of Dichotomous Key** started data gathering of specified traits (stool conformation, trashiness, tillering, leaf blade carriage, internode shape, flesh color, degree of pithiness, stalk length, brix, bud characterization) from 800 genotypes.

COVID-19 Safety & Health Committee TWG

The laboratory also spearheads the weekly disinfection of the research station under the LGAREC Safety & Health Committee. Regular activities are: UV disinfection of DTR cards twice daily inside laboratory laminar fume hood (after 9:00 and after 13:00) and surface disinfection of DTR rack; disinfection of the whole research station using US EPA-registered disinfectants (quaternary ammonium and ethanol as active ingredients, with accepted claim against emerging viral pathogen); and contact tracing and preparation of WFH arrangement of LGAREC personnel.

Trainings and Conferences

Technical researchers from VIPM were invited as speakers in the SRA and NEDA Webinar Series on Production, Processing, Packaging &Labeling and Marketing of Muscovado Sugar. Topics covered were: Latest Sugarcane Production Technology; High Yielding Varieties for Muscovado Weeding & Variety Programming; Biotechnology in Sugarcane Breeding; and Pest & Diseases of Sugarcane – Identification, Diagnosis and Control.

The VIPM Staff acted as resource persons in planters' seminars, participated in various technical meetings, trainings/workshops and attended to visitors and referred problems on sugarcane varieties and pest and disease control.

REFERRED PROBLEMS ATTENDED

DATE	PLANTER/FARM LOCATION	PROBLEM
March 2020	Nestor Coloso, Mansalanao, La Castellana	White grubs
May 2020	Rafael Abello, Hda. Progreso, Isabela Francis Milabo, Ma-ao, Bago City Marco Abad, La Carlota City Daisy Abello, Pontevedra	Fall Armyworm Variety Identification Variety Identification Fall Armyworm
June 2020	Rafael Abello, Hda. Progreso, Isabela Oscar Yusay, Isabela	Fall Armyworm Termites
July 2020	JuliusGelanto& Eduardo Conahap, Hda. Esperanza, La Carlota City BCARBAS Block Farm, Camindangan, Sipalay City Rafael Abello'sFarms, Isabela &Moises Padilla	Nutrient deficiency & stemborer infestation on Phil 2000-0791 Poor growth of Phil 99-1793 Fall Army worm infestation
August 2020	RJ Galagate, Ilog Pablito Sandoval, Alitagtag, Batangas BCARBAS Block Farm, Camindangan, Sipalay City	Nutrient deficiency of VMC variety Suspected disease of PSR 2001-105 (Leaf Scald) Poor growth of Phil 99-1793
September 2020	Gerardo Ledesma, Hda. Dos Marias, Brgy. Ara-al, La Carlota City	Variety Identification

PERSONNEL COMPLEMENT

PERSONNEL	POSITION
Nora S. Meneses	OIC & Senior Science Research Specialist
Rimmon T. Armones	Senior Science Research Specialist
Rosenie G. Entima	Science Research Specialist II
Juval C. Velasco	Science Research Specialist II
Mary Grace R. Mesobre	Laboratory Technician II
Irwin Vincent U. Yongco	Science Aide
John Moises G. Relles	Science Research Specialist II (Job Order)
Joemar A. Benedicto	Science Research Specialist I (Job Order)
Steffanie A. Castillo	Science Research Specialist I (Job Order)
Dynah Fatima I. Discaya	Science Research Specialist I (Job Order)
Meliza Z. Mana-ay	Laboratory Aide II (Job Order)
Bonbon L. Samera	Science Aide (Job Order)
Rex C. Escalona	Science Aide (Job Order)
Rogelio M. Tiansay	Science Aide (Job Order)
Rex B. Bechayda	Science Aide (Job Order)
Richel N. Donguines	Clerk III (Job Order)

SOILS LABORATORY

The SRA-LGAREC Soils Laboratory is mandated to deliver timely and accurate laboratory services through very high quality soil analyses, sugarcane juice maturity testing and other agro based materials analyses referredby private planters and farmers, fertilizer formulators, researchers and other walk in clients. Soils Laboratory primarily functions as a laboratory support arm of all the agricultural researches being conducted, tested and verified in the Research Center and undertakes technical studies relevant to the needs of the time.

1. CORE FUNCTION

a. Soil and Sugarcane Juice /Special Analyses

A total of 2,405 samples were received and analyzed for the Crop Year 2020. These samples were comprised of soil, sugarcane stalks, and special samples like sugarcane leaves, water, and soils from our very own field researches and collaborative projects with Japan International Research Center for Agricultural Sciences (JIRCAS). Among the total samples, 1,083 were soil, 947 were sugarcane stalks and 375 were special. All these were from the private planters and experimental units of SRA respectively. See table 1 for the summary of recorded number of samples.

For the number of soil analyzed, 585 were from private planters representing 54% of the total, and the rest of 48% were from the researches of SRA. This number was a significant decline from the previous crop year of soil submitted by private planters of 1,542; this can be primarily attributed to the difficulty of sampling and travel due to COVID 19 pandemic. However, the number of soil analysed from the research increased significantly by 250% from 196 of the previous crop year to 498 this year. This very significant increase was due to the number of soil we periodically collected from our very own researches in the field.

For the sugarcane juice (stalks) analyzed, 661 samples were from the researches of SRA representing 70% of the total, the rest 30% were from the private planters. A little decline for the research and private planters' samples compared to the previous year. This was due to the difficulty of accessing the location outside of Negros Occidental to harvest test fields as a result of COVID 19 pandemic.

However, despite of all pandemic related difficulties, the number of special samples analyzed significantly increased by 131%; from 286 in the previous crop year to 375 this year. This was largely attributed to the special samples we analyzed in the laboratory from our very own field experiments and collaborative projects with JIRCAS.

Furthermore, we established control charting for all soil analysis parameters in the laboratory to ensure the highest quality of analysis results. An excel program for juice calculation and rendement were also established and validated by **Mr. Jayno Ramos**, a Chemist I of the section.

And finally, we joined and passed the Proficiency testing Program of Soil and Plant Tissue Analysis of Taiwan Agricultural Research Institute (TARI), Taiwan.

2. SUPPORT FUNCTION

a. Research Activities

For the Crop Year 2020, the Soils Laboratory section have laid-out/planted four (4) field and one (1) potted experiments last April and May of the year and started the analysis of fibre. These researches are entitled; **1.) Micro Nutrient Sufficiency level in Sugarcane crop; (2) Phosphorus Method Field Validation; (3) Pesticides Residues assessment ;(4) Bioremediation and P- speciation in sugarcane;(5) water Stress mitigation studies applying microorganisms, and (6) Fibre content profiling of SRA's High yielding varieties.**

All these experiments were sampled, analysed and monitored for both leaves and soil every 3 months from planting to assess the response of treatments to its nutrient uptake and soil chemical properties. Also, growth parameters were measured and recorded every three months as well, to monitor the growth response relative to age and treatments for each respective research.

Also, we already collected three bulk soils from 3 different locations namely; **(1) Sagay; (2) Murcia; and (3) Kabankalan** of various types for Phosphorus and Water Stress research studies. **Mr. Jhon Abrien Soliza**, a Chemist I, also started the comparison and validation of three chemical methods for available phosphorus in the soil namely; **(1) Modified Truog; (2) Olsen; and (3) Bray 1** for further additional and effective determination techniques.

Furthermore, we have been performing very well in our (3) collaborative Projects with JIRCAS entitled; (1) **Nitrogen Leaching** that was hasvested at its last ratoon last October; (2**) Groundwater observation within the vicinity of the sugarcane farm** in which was terminated last July; and (3) **Management of field experiments to develop the Sugarcane cultivation which can produce the highest annual yield,** in which the first set (4 treatments) were planted last February and the second set (another 4 treatments) were planted last August. For this particular experiment, sugarcane was harvested and analysed at ages; 6-, 8-, 10-, and 12 months respectively. **Mr.Jayno Ramos** and **Miss Jastine Aglobo** both Chemist I and Research Assistant respectively were able to validate the analysis of glucose-fructose and fibre determinations as requested by our JIRCAS counterparts.

b. RDE SIDA Project

Of the total approved budget of 47 million, the unexpended balance of 10 million was re-budgeted in 2019 for San Carlos MDDC Soils laboratory equipment, laboratory supplies and chemicals. However, due the unexpected disaster earliest this year brought by COVID- 19 pandemic, the delivery and installation of the purchased equipment for the San Carlos MDDC was delayed and not implemented as planned. Laboratory Chemicals and supplies are not yet complete.

3. CAPABILITY BUILDING

The Soils Laboratory is well-equipped and operated by eight highly trained and committed technical personnel continuously undergoing developmental training to upgrade and acquire latest trends in laboratory skills and methodologies and research. We are likewise, actively involved in the transfer and dissemination of our specialized field of expertise through our Outreach Programs for the Sugar Industry (OPSI) to students, researchers, farmers and other entities in the sugar industry.

We provide lectures on (1) **Soils Sampling and fertilization**; (2) **Liming of Sugarcane crops;** and (3) **Soil fertility**. This year, **Mr. Jayson Tumbay**, one of the Research Assistants presented a completed research entitled; **Yield Evaluation of Sugarcane with Varying Levels and Application Timing of Nitrogen Fertilizer on Commercial Scale Field** in both 2020 Annual In- house review of SRA and Western Visayas Agriculture, Natural and Aquatic Resources Research Symposium. Also,**Miss Virgie Celestial**, a Science Research Specialist of the section presented as guest on the 2020 Annual In-House review of SRA with her Masters in Chemistry thesis entitled; **Combined Effect of various organic amendments to the growth and nutrient uptake of the water stressed sugarcane plants** and became one among the resource speakers of the **1st General Assembly of Phil. Soil laboratory Network with the topic "Status of National and Provincial laboratories under the Department of Agriculture and Provincial laboratories.**

SOILS LABORATORY WORK COMPLEMENT

NAME	POSITION
1. Virgie P. Celestial	Science Research Specialist II
2. Jayno C. Ramos	COS Chemist I
3. Jhon Abrien S. Soliza	COS Chemist I
4. Jayson V. Tumbay	COS Research Assistant
5. Alcane G. Mellizo	COS Research Assistant
6. Jastine Aglobo	COS Research Assistant
7. Rutchie T. Muchada**	Laboratory Technician II
8. Agustin M. Tahum	Science Aide
***-Retired October20, 2020*	

AGRICULTURAL SUPPORT SERVICES DIVISION

FARM SERVICES

- The Farm Services Unit is established to provide support and assistance to all RD & E projects of the research units for sugarcane production: Production Technology and Crop Management (PTCM), Variety Improvement and Pest Management (VIPM), Laboratory Services, Extension and also for the sugarcane planters.
- These services includes:
  - Area allocation
  - Land preparation (Plowing/Harrowing/Furrowing)
  - Irrigation and drainage (main canals)
  - Labor assistance during harvesting (cutting and loading)
  - Take charge of transporting harvested canes to the mill
  - Provides planting materials (cutback/top points) for research, sugarcane planters, for the nursery farms of the different MDDC's and Block Farms through the Extension Department
  - Also tasked to maintain and improve the HYV propagation, demo, and commercial fields
  - For CY 2019-2020, around 26.477 hectares on the average were utilized and planted to twelve new HYV's (cutback or top points) for research purposes, for planters reservations/requests, MDDC distributions for nurseries, ARB's, and SIDA Block Farms.
  - Table below shows the HYV area allocation, canepoints production/distribution and harvested canes:

Table 1: HYV Area Allocation

VARIETY	AREA
Phil 2006-2289	9.919 Ha.
Phil 2000-0791	0.51 Ha.
Phil 2004-1011	0.486 Ha.
Phil 2008-0909	0.3 Ha.
Phil 99-1793	10.477 Ha.
Phil 2000-2569	1.1Ha.
Phil 2004-0827	1.027 Ha.
Phil 2007-0653	0.2 Ha.
Phil 2007-0359	0.05 Ha.
Phil 2006-1899	0.18 Ha.
Phil 2010-0149	0.505 Ha.
Phil 2009-1969	1.723 Ha.
TOTAL	26.477 Ha.

Table 2: Monthly Canepoints Distribution

MONTH	LACSA
January	49.3
February	51.10
March	20.045
April	13
May	105.5
June	36.2
July	73.34
August	62.22
September	46
October	58
November	17
December	73.4
TOTAL	605.105

Table 3: Recipients HYV Distribution

RECIPIENTS	LACSA
Sold to Planters	531.4
For Research	7.405
Cooperative/Association/Universities	52.3
For MDDC/Block farm	14
TOTAL	605.105

Table 4: Quarterly Harvested Canes

HARVESTED CANES(tons)	
1st Quarter	290.570
2nd Quarter	486.561
3rd Quarter	
4th Quarter	409.98
TOTAL	1187.111

PHOTO: PROPAGATION AREA

SUGARCANE ONE-EYE BUD CUTTING PRODUCTION

Single-eye/one-eye bud cutting of sugarcane was established to rapidly propagate the limited number of newly released HYV's of the station. It was also introduced to decrease the amount of planting materials planted in the field for about 50% compared to canepoints, thus reducing the production cost of the farmers.

QUARTER	PRODUCTION
1st Quarter	
2nd Quarter	17,450
3rd Quarter	14,000
4th Quarter	4,000
TOTAL	**35,450**

SRA LGAREC SUGARCANE - RICE INTERCROPPING SYSTEM

The introduction of sugarcane rice intercropping system aims for the provision of additional income to all sugarcane farmers while waiting for their main crop to be harvested.

7-week old Sugarcane Intercropped by rice

5-week old Sugarcane Intercropped by rice

4-week old Sugarcane Intercropped by rice

3-week old Sugarcane Intercropped by rice

Return of Investment for the Intercropping System

Field Activities/Expenses	Amount	Unit		Total expenses
1. Furrowing (using carabao).	Php.795	0.16	ha.	Php1,27.2
2. Planting (direct seeding)	Php.3,150	0.16	ha.	Php.504
3. weeding (2x)	Php.5,810	0.16	ha.	Php.929.6
4. Plow cultivation	Php.1,591	0.16	ha.	Php.254.56
5. Fertilization	Php.928	0.16	ha.	Php.148.48
6. Spraying (BMO & Bacillus ameliloquifaciens)	Php.852	0.16	ha.	Php.136.32
7. Harvesting	Php.6,300	0.16	ha.	Php.1008
8. fresher	Php.3,780	0.16	ha.	Php.604.8
9. cost of Fertilizer				
2.5 bags of 18-46-0/ ha.	Php.1,600	0.4	bag	Php.640
1.5 bags of 46-0-0/ ha.	Php.1,100	0.24	bag	Php.264
2 bags of 0-0-60/ ha.	Php.1,200	0.32	bag	Php.384
10. Cost of planting material Php.40.00 /kilo (40 kgs/ha.)	Php.40	6.5	kilo	Php.260
			Total expenses	Php.5,260.96

SUPPORT SERVICES

The Support Services Unit is responsible for the repair and maintenance of buildings, structures and other facilities in the station. Also, in-charge for the cleanliness, orderliness, maintenance of buildings, grounds/surroundings, and other LGAREC facilities. Provide transport/shuttle services for researchers and other LGAREC personnel in doing activities in and out of the station. Tractor and irrigation services in support to researches, experiments and HYV production of the station. Moreover, the unit provides labour supports as requested by different departments of the station.

Work Highlights:

- The unit has monitored, oversee and evaluated accomplishments of two units LGAREC buildings under repair; Motorpool and Trichogramma Laboratory
- Did various metal fabrications needed in the station
- Well maintained 9-unit service vehicles including delivery trucks for the provision of transport/shuttle services for researchers and other LGAREC personnel
- Repaired and maintained 5-unit tractor and implements including its accessories to accommodate request for land preparation of propagation and experimental fields, hauling services, cultivation and other related field activities
- Troubleshoot breakdowns of domestic and irrigation system facilities together with its accessories
- Fixed, repaired electrical system and fixtures of the station
- Reformed the drainage system of LGAREC propagation and experimental fields
- Repaired and maintained LGAREC field access roads
- Conducted evaluation of staff houses structural physical condition
- Provided regular labour supports to different departments as per request
- Operated irrigation system facilities to support the water needs of research, experimental and propagation fields.

Irrigation Activities (Application)	
TYPE OF FIELD	**AREA (Ha)**
Propagation Area	27.66
Experimental Field	30.6
TOTAL	**58.26**

Tractor Operation (Land Preparation)
AREA SERVED: 60 Hectares

TRICHOGRAMMA LABORATORY

The mass production of *Trichogramma* as a potential biological control agent against sugarcane stem borers of the Sugar Regulatory Administration, La Granja Agricultural Research and Extension Center gave a significant impact to the sugarcane planters as well as to rice, corn, and vegetable farmers in Negros and other part of Visayas for the past years. The increasing demand of sugarcane planters/farmers is an evidence of its significance as biological control agent. *Trichogramma* is an egg parasitoid that kills the pest before it can cause any damage to the plant.

From January 2020 to December 2020, the project produced 37,835 strips of *Trichogramma*. A total of 29,253 strips were distributed to clients.

Category/Plants/Farmers	No. of Strips
Sugarcane Farmers	24,317
Rice Farmers	45
Sugarcane Research	4,725
Vegetable	146
Corn	20
used as starters	8,582
TOTAL	**37,835**

Newly repaired Trichogramma Laboratory is now officially used for the mass production of Trichogramma for farmers, research and HYV production uses and distribution.

EXTENSION SERVICES DIVISION-VISAYAS

HIGHLIGHTS OF ACCOMPLISHMENT 2020

This annual report presents the accomplishments of Extension Services Division Visayas for Year 2020.

MANPOWER COMPLEMENT

The Extension Services Division Visayas has a total of 116 personnel complement, with 8 Agriculturists assigned in different mill districts. Contract of Service personnel is composed of 57 Project Development Officers, 15 Project Evaluation Officers, 19 Agriculturists I, 11 Farm Surveyors and 8 office-based personnel, all under job order basis.

On the other hand, the division has provided the necessary technical assistance on our sugar industry clientele to a total of **52,717** sugarcane planters in 16 mill districts in the whole Visayas covering **55,028** farms.

For Crop Year 2019-2020, the total area planted for sugarcane in the Visayas is **274,531.04** hectares with a final monitored production in total tonnage of **15,876,714.92** and a total LKg of **29,441,768.71**. The total sugar produce is **1,472,088.44** metric tons. Visayas average production for Crop Year 2019-2020 is 57.83 TC/Ha with 1.85 LKg/TC and an average of 107.24 LKg/Ha.

This year had been a global turmoil brought by COVID-19 pandemic and we are all challenge to maximize our effort to provide the best services that we can give to help our frontliners in the field of Agriculture, our farmers.

Given the resources on top of all health and security protocols, Extension Services Division Visayas is entrusted to dispense all these government supports under SIDA Fund (RA 10659) to aid the majority of our sugarcane farmers who were greatly affected by the economy's temporary shutdown due to global pandemic.

Despite strict health and security protocols, Sugar Regulatory Administration through Extension Services Division was able to implement various projects to ensure food productivity and availability to generate income and opportunities to our farmers.

I. CAPABILITY BUILDING OF SUGARCANE FARMERS, WORKERS AND SRA RDE PERSONNEL

This project has two components; Component 1 will focus on the education and various skills training of farmers on sugarcane farm management, farm planning and budgeting, financial literacy training/seminar with crop assessment and farm production surveys. Component 2 will focus on an international study tour to other sugarcane producing countries where the RDE personnel will be updated on technology advancement and systems/practices in sugarcane growing.

This project will provide interventions to enhance basic knowledge of sugarcane farmers and become more efficient and competitive. Train farmers to effectively implement the acquired technologies learned and help increase productivity and income of farmers. To improve the efficiency of extension and RDE personnel in the implementation of technology transfer, there is a need for vital trainings and exposure trips to keep abreast with the evolving needs of the sugar industry, like participation in foreign country tours to be updated with the developments and technology advancements in other sugarcane growing countries

For 2020, a total of 5 Financial Literacy trainings with 268 participants was conducted all over for Socialized Credit applicants. While a total of 8 Sugarcane Farm Management Seminars was conducted for 319 participants. Because of the pandemic trainings conducted were only on the first quarter of 2020.

Two participants attended the training on Crop Modeling in Ishigaki, Japan. The APSIM (Agricultural Production Systems Simulation) application was used for this training

II. CROP ESTIMATION PROJECT

The Crop Estimation project aims to provide accurate data that shows the status of the productivity of Sugarcane in the Philippines. The SRA YESS or Yield Estimation System for Sugarcane project under the Crop Estimation has been created to support this aim. The YESS has been processing remotely-sensed maps, gathers field data or validation, and many other activities had been conducted that is beneficial to the sugarcane industry.

And the following table represents all activities the Crop Estimate team has accomplished in the year 2020.

1. AREA PROFILING

AREA PROFILING			
MILL DISTRICT	**Vacant areas/converted to other crops**	**NO. OF FARMS PROFILED**	**SOCIALIZED CREDIT APPLICANTS ASSISTED**
HPCO	241.30	68	120
BACOLOD-MURCIA	390.50	26	327
BISCOM	0.00	130	0
DACONGCOGON	41.50	712	55
LA CARLOTA	62.50	87	0
LOPEZ	340.50	11	46
SAGAY	34.00	10	59
MAAO	0.00	67	75
SAN CARLOS	125.00	155	118
SONEDCO	94.00	761	55
VICTORIAS	50.00	28	52
CAPIZ	15.80	53	25
BOGO MEDELLIN	225.00	15	64
ORMOC	34.20	22	4
TOLONG	40.05	53	142
BAIS	54.00	626	87
TOTAL	**1698.35**	**2796.00**	**1177.00**

Farms surveyors have profiled 2,796 farms and has surveyed 1,698.35 hectares of vacant areas and converted to other crops.

2. FARM MECHANIZATION SURVEY

Farm Mechanization Survey				
No. of Farms Surveyed	**No. of Farms Surveyed**	**No. of Tractors Surveyed**	**No. of Hauling Trucks Surveyed**	**No. of Implements Surveyed**
HPCO	68	185	154	164
BACOLOD-MURCIA	26	104	61	168
BISCOM	67	97	254	559
DACONGCOGON	4	21	41	48
LA CARLOTA	60	92	24	137
LOPEZ	11	43	41	322
SAGAY	10	18	25	166
MAAO	50	45	21	152
SAN CARLOS	155	113	300	515
SONEDCO	68	31	202	78
VICTORIAS	50	92	39	30
CAPIZ	78	17	100	34
BOGO MEDELLIN	15	92	116	166
ORMOC	4	267	39	188
TOLONG	6	1	5	13
BAIS	32	62	149	103
TOTAL	**654**	**1188**	**1532**	**2813**

3. AUTOMATIC WEATHER STATION

26 units installed to 14 Mill Districts; but 8 AWS units are non-communicating as of the moment. Each Mill District was given log-in credentials to access the data from the weather station.

4. FARM SURVEYORS

LIST OF FARM SURVEYORS 2020	
1	LOPEZ, RAFFY
2	GARCILLAN, JOEMAR B.
3	ABARQUEZ, MARK
4	CUIZON, ROBINSON, JR
5	VILLAVICENCIO, EDDIE Q.
6	SANTILLANA, ROMAN, JR
7	BALSOTE, RODERIC
8	GALLARDE, JESSHA MARIE
9	SALGON, NORBERTO L., JR
10	DIVINAGRACIA, MARKEL
11	DURAN, REGIE

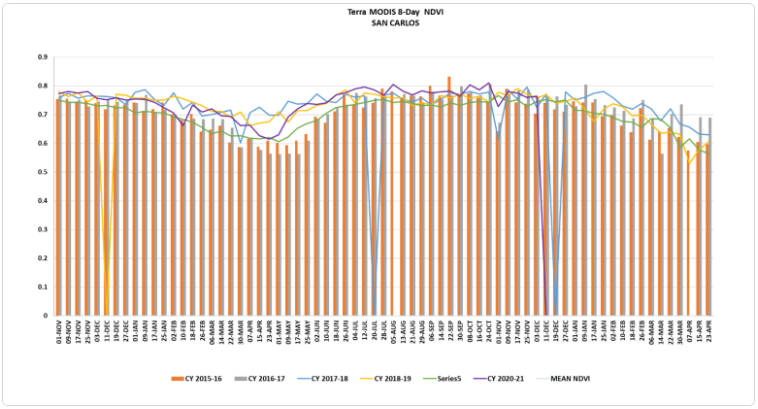
11 Farm Surveyors were assigned at each district of Visayas as of December 2020. They perform all field activities under the Crop Estimation Project.

5. YIELD MAPS

The Yield maps of each district were updated every month as soon as the satellite images are available. They were processed and lay-out with the use of various software such as SNAP Desktop, QGIS and ArcGis.

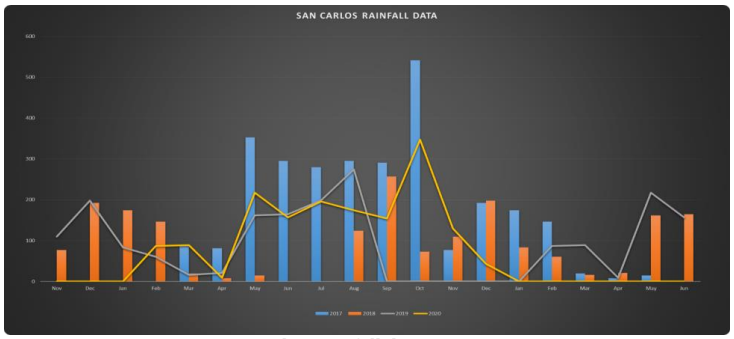
The following table and images shows the activities done in Crop Estimation Project throughout year 2020. (1) NDVI data of each Mill District using Global Agricultural Monitoring (GLAM) (2) Monthly rainfall data as of 2020 vs Normalized Vegetation Index(NDVI), (3) Monthly solar radiation data as of 2020 vs Normalized Vegetation Index(NDVI)

1. NDVI (Normalized Difference Vegetation Index)



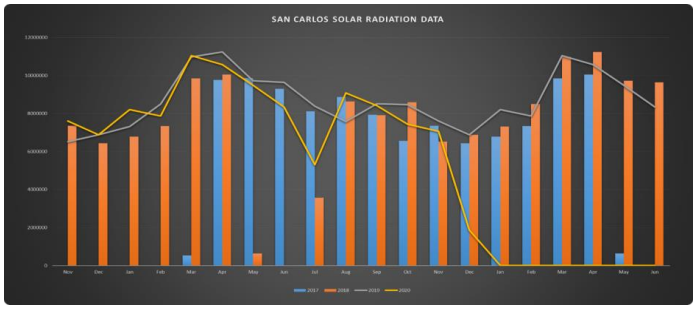
Example of San Carlos NDVI as of December 2020

2. RAINFALL VS. NDVI



San Carlos Rainfall data vs NDVI
(Rainfall data is from AWS)

3. SOLAR RADIATION VS NDVI



San Carlos Solar Radiation data vs NDVI
(Solar Radiation data is from AWS

III. RAPID PROPAGATION OF SUGARCANE HIGH YIELDING VARIETIES

One of the proponents of the Sugarcane Industry Development Act of 2015 is the RD & E Projects, under this is the establishment of nurseries or the Rapid Propagation of Sugarcane High Yielding Varieties to different milling districts in Visayas. Main objective of this project is to establish a nursery to every milling district for an easy access of small sugarcane planters/farmers to new high yielding varieties. Rapid Propagation of Sugarcane High Yielding Varieties for Extension Services Division – Visayas was allotted to different milling districts, provision/interventions under this project includes fertilizers, planting materials, land preparation and cultivation, etc.

- **CANEPOINTS PRODUCTION/BENEFICIARIES:**

  Total of **2,051.60** canepoints produced from January – December 2020 and distributed to **236** beneficiaries of different milling districts (SRA ESD – Visayas)

- **FUND UTILIZATION:**

  Total of **Php19,778,645.06 (70%)** already utilized including farm labors, land preparation canepoints and the procured fertilizers.

- **FUND/CASH TRANSFERS:**

  Total of **Php3,445,014.55** cash transferred to four project proponent and subject for liquidation.

IV. TDTU ACCOMPLISHMENT REPORT- 2020

The Technical Development and Training Unit is directly under the Extension Services. The unit is task to plan, implement and coordinate all trainings and packaging of matured technologies of RDE. TDTU also coordinated the sugarcane related trainings of SRA, LGAREC. It also caters the On the Job Trainings and Summer Farm Practice of the students coming from various Agricultural schools in the region. It also accommodates visitors and field trippers from Academe, GOs, NGOs and private individuals and institution. In addition, the following are the TDTU accomplishment for this year.

- Assisted/ facilitated the conduct of GIS Training and OPSI seminar of newly hired PDO
- Assisted in the preparation of Training module for the conduct of OPSI 1 day seminar requested by Bio-Power for 2 batches with 40 participants
- Various government forms- 30,000 copies
- Other SRA – DA forms – 10,000 copies
- RSBSA Survey Forms – 175,000 copies
- Facilitated the distribution of COVID-19 related brochures to mill district personnel – 800
- Facilitated the fabrication/ served 150 pcs face mask given to Extension Personnel in the mill district
- Attended/ entertained queries of visitors on rent for function hall of Balay OPSI/ Dormitory for their special occasions only if allowed by health and safety protocols during the pandemic. On record, a total of 1,150 guests catered at Balay OPSI while 137 guests in the dormitory.
- **TESDA Update**
  - Facilitated in the preparation of documents for the procurement of supplies/ materials needed for the assessment center.
  - The supplies/ materials were already procured while the electrical connections were partially installed due to incomplete electrical materials.
  - Assisted in the SIMAG Foundation in gathering of Informative documents/TESDA requirements from Extension personnel that were NC II holder who were interested to undergo TESDA TM I. Documents of 27 Extension personnel from different mill districts were submitted to TESDA Office and was evaluated. Only 4 extension personnel were able to successfully completed the online TM I due to COVID-19 pandemic and is still waiting for the advice of TESDA as to the schedule of their assessment.

V. SRA SUGARCANE-RICE BASED FARMING SYSTEM

The Research and Extension Services Division of Sugar Regulatory Administration have partnered with a new project on intercropping sugarcane into rice farming system and relay planting together with the Department of Agriculture through the Office of the Provincial Agriculture of Negros Occidental. A techno-forum was held among some SIDA Funded block farms in Negros Occidental to orient and evaluate the area before proceeding with the actual intercropping. Among the block farms, 4 of which in Negros Occidental were able to proceed with the said project namely Tagoc Agrarian Reform Cooperative in SONEDCO Mill District, Hda. Sto. Niño Farmers Association and Entorilan ARB Association Inc. in FF/Bac-Mur Mill District and Had. Bagacay Workers Carper Beneficiaries Association in Biscom Mill District. A close supervision was done from planting to harvest to monitor the production. As a result, the table shows the summary of the data gathered among the five different block farms.

The sugarcane plant was planted days before the rice seeds to avoid competition and canopy. On the other hand, the area Had. Sto. Niño Farmers Association Block Farm adopted the Relay Planting System and utilized the 1 hectare land into rice cropping to adopt with the cropping season and afterwards making the area a nursery for the cane points. The harvest were utilized by the farmers as their daily consumption and making the rest as planting material for the next cropping season. This project is being promoted to increase farmers' livelihood towards a sustainable agriculture.

Techno-Demo Forum at Brgy. Tagoc Kabankalan City and Entorilan ARB Association Inc. with the Senior Agriculturist, Dr. Armando Abaño from the Office of the Provincial Agriculturist and attended by the different members of the Block Farm respectively.

SRA-La Granja Techno Demo Forum on June 24, 2020

Techno Demo Forum at Kabankalan City on July 1,2020

VI. Block Farming Project (SIDA GAA 2016, GAA 2017, GAA 2018, GAA2019)

The Block Farming Project is a strong engine for direct and indirect growth and poverty reduction in various milling areas in the Visayas region. It opened the door of opportunities where various block farms have direct linkages to other agencies both private and in the government.

The Sugarcane Industry Development Act (SIDA) paved way in increasing the productive capacity of the small farmers thus, securing a more developed and competitive industry.

To date, the block farming program had benefited *10,368* household beneficiaries *from GAA 2016 to GAA 2019* with a total budget of *Php 704,818,200.* This is in fact a concrete results of interventions done as an active response of the SRA through Extension Visayas to its vision of increasing the industry's competitiveness and thus, improving farm productive capacity per unit area.

Extension Services Division Visayas together with our national government through the Department of Agriculture is supporting our farmers in this endeavor to uplift themselves in this trying time of COVID-19 pandemic.

Food Productivity and Availability

1. **Provision of Start-Up Capital in cash, in kind, and for Labor.**

   The start-up capital is a one-time grant funded for production inputs of block farms which include but not limited to labor cost, planting materials, fertilizer, soil rehabilitation, soils analysis, land preparation, harvesting and crop insurance. Provided, that start-up funding can be availed only once by a block farm.

   Only few members of each block farms were present during the turnover of the checks to observe strict protocol on social distancing.

GAA	Amount of Fund Utilized as of 31 December 2020
GAA 2016	45,533,139.28
GAA 2017	48,156,983.74
GAA 2018	33,486,332.89
GAA 2019	40,527,651.70
TOTAL	**167,704,107.61**

Funds released to block farms as of December 31, 2020

a. For Start-up Capital

GAA	BUDGET ALLOCATION	UTILIZED AMOUNT	PERCENT UTILIZED
GAA 2016	25,643,590.00	25,107,256.35	97.91
GAA 2017	29,160,000.00	26,189,467.84	89.81
GAA 2018	21,810,000.00	19,798,832.89	90.78
GAA 2019	30,672,000.00	24,806,811.70	80.88
TOTAL	**107,285,590.00**	**95,902,368.78**	**89.39**

b. Budget allocated for establishment of HYV Nursery

GAA	BUDGET ALLOCATION	UTILIZED AMOUNT	PERCENT UTILIZED
GAA 2016	2,789,400.00	2,177,767.27	78.07
GAA 2017	5,030,200.00	3,147,460.00	62.57
GAA 2018	3,459,575.00	2,197,876.25	63.53
GAA 2019	3,905,760.00	2,651,686.00	67.89
TOTAL	**15,184,935.00**	**10,174,789.52**	**67.01**

Provision of Agricultural Inputs to SIDA Block Farms

1. Provision of Agricultural Lime

The provision of agricultural lime is one key approach to rejuvenate the entire soil system of the block farms, thus, paving the way to higher farm productivity. In so doing, it ensures higher income for small sugarcane farmers in the countryside. With that, as an active response of the agency amidst the challenge of COVID 19 pandemic, a total of ***16,650 bags*** of agricultural lime, amounting to ***Php 999,353.28 pesos,*** **and** benefited *12 SIDA funded block* farms from GAA 2019.

2. Fertilizer Delivery To SIDA Block Farms GAA 2019

To grow healthy crops, farmers need to ensure they have healthy soil. Fertilizers help replenish the nutrients in the soil. Fertilizers replace the nutrients that crops remove after harvest. Without the addition of fertilizers, crop yields and agricultural productivity would be significantly reduced.

A total of **4,860** bags of 46-00-00, **4,860** bags of 18-46-00 and **3,600** bags of 00-00-60 were delivered to 30 SIDA block farms for GAA 2020 on the month of January 2020.

Summary of Fertilizer and Agricultural Lime delivered to SIDA Block Farms Visayas as of 31 December 2020:

GAA	No. of Bags of Fertilizer	Agricultural Lime
GAA 2016	22,052	17,760
GAA 2017	17,640	16,800
GAA 2018	11,050	20,000
GAA 2019	13,320	16,650
TOTAL	**64,062**	**71,210**

Delivery of fertilizer inputs is included in the provision of start-up capital as interventions provided to block farms. This will gradually help our farmers increase their productivity and eventually improve their income and maximize their capacity in sugarcane farming.

Thirty-eight (38) HYV nurseries were established from January to December 2020. Also, a total of **777.17** lacsas was produced from January to December 2020 and was planted to **192.8098** hectares for expansion area. The goal of the project is to access and rapidly distribute planting materials and make it available to the community as well as to encourage the Block Farms to use sugarcane HYVs for higher production.

GAA	No. of HYV Nurseries Established	No. of Lacsa Produced	Beneficiaries	Remarks
GAA 2016	37	817.71	136	
GAA 2017	23	660.33	70	
GAA 2018	12	103.16	4	Newly established
GAA 2019	14	88.7	8	Newly established
TOTAL	**86**	**1,669.90**	**218**	

To date, a total of 86 block farm HYV nurseries were established in the Visayas with a total of 1,669.90 lacsas produced with 218 beneficiaries including private planters and block farms.

SIDA FUNDED FARM MECHANIZATION SUPPORT

To combat the rapid modernization of agricultural sector, farmers' specifically small-scaled farmers have been adopting to so call "modern agriculture" in order to alleviate the unstable productivity and cope up with the modern change. Therefore, the promotion of Farm Mechanization is encouraged among sugarcane farmers to increase productivity while decreasing losses and time efficient.

Different Farm Mechanization Support was given to different block farms of Sugar Regulatory Administration funded by Sugar Industry Development Act (SIDA). These mostly were made possible to slowly alleviate the problems in sugar industry and help marginalized farmers set standard to modern agriculture.

Irrigation Facilities

The Sugar Industry Development Act (SIDA), with its aim to strengthen the support services provided for the farmers' stakeholders, Sugar Regulatory Administration through the Extension Services Division distributed 55 units of Irrigation Facilities to each block farms for GAA 2018 and GAA 2019 on January and February 2020 respectively. These irrigation Facilities includes 25 units of 12 hp Myanmar Pump and Engine for Block Farms GAA 2018 and 30 units of 12 hp Kubota pump and engine set for GAA 2019 Block Farms with complete accessories. The Turnover ceremony was held at SRA-Bacolod City Office on January 16, 2020 for GAA 2018 Block Farms and March 4, 2020 for GAA 2019 block farms and was attended by some Farm Managers, Block Farm Chairman and members which was facilitated by Extension Services Division Personnel, headed by the OIC Manager III, Atty. Ignacio Santillana and Ms. Helen B. Lobaton, OIC Chief Agriculturist-Visayas.

Farm Implements

At least 37 block farm recipients in the Visayas from GAA 2016 were given farm implements support composed of 1 heavy duty moldboard plough, 1 furrower and 1 hydraulic Disc Harrow. Each block farm were able to received 3 farm implements delivered on site on the months of November and December 2020. Facilitated by the Mill District Officers and Project Development Officers, the farm implements were successfully delivered on site to be used by the block farm members during the different sugarcane planting activities.

Sugarcane Grabbers

For GAA 2017 SIDA Block Farms, 35 block farms were the recipients for the sugarcane grabbers, 14 of which are the lead block farms and 21 are the block farm cluster members. These grabbers were delivered on site from the

months of November to December 2020. The Sugarcane Grabbers will be used as alternative to manual loading of harvested sugarcane. With this, farm mechanization is promoted towards marginalized farmers while decreasing the time it takes to load the sugarcane and minimize losses.

Fertilizer Applicators

The 37 block farm associations of SRA-SIDA GAA 2016 have received LMC/FA, rows distribution fertilizer applicators on the months of September 2020. These fertilizer applicators has been delivered on site to different block farms and was received by the Mill District Officer assisted by the Project Development Officer, Junior Agriculturist in the area and turned over to the Block Farm Chairman and Farm Manager. Fertilizer Applicators are used as alternative to manual fertilization. With this, farmers can minimize the time it takes to do fertilization while decreasing the losses incurred in manual labor.

LIVELIHOOD CORNER

SRA SIDA BLOCK FARM – DOLE Integrated Livelihood and Emergency Employment Program

Expansion of Poultry - Layers Project

The Department of Labor and Employment (DOLE- Region 6) is intensifying its support for pandemic-hit sugarcane farmers in the region through the Poultry-based Livelihood and Enterprise Program in partnership with Sugar Regulatory Administration -SIDA.

With a total of P 1,100,000.00 check was turned over to Paraiso Food Processing Cooperative Block Farm in Cadiz City for Expansion of Layers Project last April 5, 2020.

Due to strict health guidelines and General Community Quarantine in the Province of Negros and Bacolod City, only one farmer or member of the Block Farm can get the check from the office of DOLE - Bacolod. Documentation was difficult during those times.

Farm Mechanization Project

Last August 8, 2020, the Department of Labor and Employment – Livelihood Program in partnership with Sugar Regulatory Administration SIDA turned-over P954,700.00 worth of farm machinery and farm inputs to the Block Farm beneficiary of Tolong Mill District to boost their livelihood and economic lives.

The Bolbog Small Farmers Beneficiaries Association in Sitio Bolbog, Brgy. Narra, Bayawan City received one Kubota Mini Tractor and implements for Farm Mechanization Program of SRA SIDA Block Farm Livelihood.

Helen B. Lobaton, OIC Chief Agriculturist –Visayas in a message said "The threat of the coronavirus disease 2019 (Covid-19) will not hinder the implementation of the farm mechanization program in Central Visayas Region of SRA & DOLE in Region 7. Sugarcane farmers, as the frontliners, deserve to be empowered and their welfare should be well taken care of."

Mill District: ***TOLONG***
Block Farm: ***BOLBOG SMALL FARMERS BENEFICIARIES ASSOCIATION***
Location: ***Sitio Bolbog, Brgy. Narra, Bayawan City, Negros Oriental***

VII. CASH ASSISTANCE AND FOOD ASSISTANCE TO MARGINALIZED SUGARCANE FARMERS IN VISAYAS

Following the launching of Department of Agriculture Cash and Food Subsidy Program amidst COVID-19 last December 8, 2020 at Pana-ad Park, Bacolod City, Sugar Regulatory Administration being one of the implementing agency through its Extension Services Division Visayas conducted a series of distribution of cash and food subsidy vouchers to different locations in the province of Negros Occidental last December 19 – 23, 2020.

A total of 1,169 cash and food subsidy vouchers were distributed for the first batch of sugarcane farmers' beneficiaries in Negros Occidental. Also, 35 fortunate sugarcane farmers' recipients from Iloilo and Capiz received the 35 cash and food subsidy vouchers. Overall, a total of 1,204 cash and food subsidy vouchers were distributed for Visayas.

Currently, registration and validation at the Registry System for Basic Sector in Agriculture (RSBSA) is on-going for next batches of beneficiaries for Visayas.

Additional **18** vouchers for Capiz, **72** for Iloilo, 7 for Region 7, 30 for Region 8, and 277 vouchers for Negros Oriental were forwarded to DA - ICTS on December 18, 2020 for cross-matching prior to generating of vouchers.

A total of **1,070** cash and food subsidy vouchers are set for distribution for the coming weeks of January 2021. Moreover, series of additional distribution will be scheduled once the next batches of vouchers are validated, cross-matched, generated and printed.

Extension Services Division Visayas together with our national government through the Department of Agriculture is supporting our farmers in this endeavor to uplift themselves in this trying time of COVID-19 pandemic.

EXTENSION SERVICES
LUZON/MINDANAO

Luzon and Mindanao area has a total plantation area of 135,991.48 hectares with a total sugarcane production of 6,566,563.17 tons cane with 634,335.75 MT of sugar produced for Crop Year 2019-2020. These production areas are distributed from among the 10 sugarcane milling districts covering 24 provinces from the North of Luzon down to Mindanao. Four mill districts are in North and Central Luzon, 3 in South Luzon, and the other 3 in Mindanao. From among the 10 mill districts, Bukidnon shares the biggest part of the plantation chunking 62,551.11 hectares or 46.03% of the total area.

Rainfall distribution from the various mill districts as monitored by field officers commands importance as this is the basis of field operations from crop establishments, fertilization, weeding, and cultivation and dictates the start of milling operations. This is also important in monitoring the growth and development of the standing crop. The table shows the monthly rainfall distribution for the year. With Bukidnon Mill District having the highest amount of rainfall recorded, while Cagayan experienced the dry-spell for four long months.

Table 1.Monthly Rainfall Distribution by Mill District in Luzon & Mindanao, FY 2020 (in milimeters)

Mill District	Months												TOTAL	AVERAGE
	January	February	March	April	May	June	July	August	September	October	November	December		
CARSUMCO	23.00	13.40	0.20	15.60	182.80	130.40	80.20	82.60	-	-	-	-	528.20	44.02
Isabela	95.00	56.50	39.00	40.20	115.70	157.60	181.10	191.10	243.80	295.90	285.50	186.60	1,888.00	157.33
Tarlac	29.40	3.80	0.20	18.00	187.60	86.60	219.80	189.40	0.40	44.20	37.80	138.40	955.60	79.63
Pampanga	6.80	14.80	2.40	68.20	179.40	120.40	245.20	203.60	255.40	319.40	238.00	96.60	1,750.20	145.85
Don Pedro	12.80	10.80	0.40	0.20	223.80	237.60	263.00	223.20	221.60	397.40	403.80	121.40	2,116.00	176.33
Balayan	18.80	2.40	8.00	2.00	80.60	98.80	213.40	366.40	244.00	86.20	84.40	176.60	1,381.60	115.13
PENSUMIL	811.20	9.60	26.00	15.40	619.40	1,770.00	612.20	491.40	1,646.60	433.00	552.20	267.00	7,254.00	604.50
Bukidnon	293.20	62.40	322.20	142.40	1,121.60	937.20	1,158.00	2,115.20	3,091.80	2,355.40	641.60	384.20	12,625.20	1,052.10
Davao	160.40	68.80	44.20	18.20	203.60	271.80	130.40	137.20	102.80	251.20	77.60	332.40	1,798.60	149.88
Cotabato	137.00	20.00	71.00	16.00	274.00	171.00	311.00	89.00	141.00	283.00	129.00	158.00	1,800.00	150.00
Monthly Total	1,587.60	262.50	513.60	336.20	3,188.50	3,981.40	3,414.30	4,089.10	5,947.40	4,465.70	2,449.90	1,861.20		
Monthly Average	158.76	26.25	51.36	33.62	318.85	398.14	341.43	408.91	594.74	446.57	244.99	186.12		

Farms and Farmers across Farm Sizes

Small farms (below 5 hectares) still dominate the farm-range distribution in every mill district coverage, an average of 1.96 hectares landholding per farmer.

Table 6.Farms, farmers across farm sizes in Luzon and Mindanao, CY 2019-2020

Farm Size	No. of Farmers	% No. of Farmers	No. of Farms	% No. of Farms	Area (has)	% Area	Ave. Area/Farmer
Below 5.00 Has.	23,537	81.71	24,744	75.50	46,045	34.23	1.96
5.01 - 10.00	2,712	9.41	2,986	9.11	19,687	14.63	7.26
10.01 -25.00	1,610	5.59	2,346	7.16	21,881	16.27	13.59
25.01 - 50.00	602	2.09	1,382	4.22	14,714	10.94	24.44
50.01 - 100.00	194	0.67	521	1.59	11,100	8.25	57.22
100.01 & Above	152	0.53	794	2.42	21,093	15.68	138.77
TOTAL/AVERAGE	**28,807**	**100.00**	**32,773**	**100.00**	**134,518.88**	**100.00**	4.67

Progreen Agricorp (Don Pedro mill district) did not provide any individual planter's production to SRA-Don Pedro estimated to 1,369.90 hectares intended for Bio-ethanol. Thus, the Don Pedro data are only for the canes milled for sugar at CADPI and URC-SURE.

Farms and Farmers across Farm Size by Mill District

Table 7. Farms and farmers across farm sizes in Luzon & Mindanao Mill Districts, CY 2019-2020

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	25,816	82.62	27,582	74.21	46,145	34.28	1.79
5.01 - 10.00	2,874	9.20	4,167	11.21	19,689	14.63	6.85
10.01 -25.00	1,610	5.15	2,660	7.16	21,881	16.25	13.59
25.01 - 50.00	602	1.93	1,406	3.78	14,714	10.93	24.44
50.01 - 100.00	194	0.62	543	1.46	11,100	8.25	57.22
100.01 & Above	152	0.49	812	2.18	21,093	15.67	138.77
TOTAL	**31,248**	**100.00**	**37,170**	**100.00**	**134,621.61**	**100.00**	4.31

CARSUMCO Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	239	62.89	241	62.76	445.34	16.52	1.86
5.01 - 10.00	65	17.11	65	16.93	391.04	14.51	6.02
10.01 -25.00	53	13.95	54	14.06	704.16	26.13	13.29
25.01 - 50.00	13	3.42	14	3.65	403.54	14.97	31.04
50.01 - 100.00	8	2.11	8	2.08	434.01	16.10	54.25
100.01 & Above	2	0.53	2	0.52	316.91	11.76	158.46
TOTAL	**380**	**100.00**	**384**	**100.00**	**2,695.00**	**100.00**	7.09

Isabela Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	473	76.66	566	77.64	2,431.52	37.41	5.14
5.01 - 10.00	44	7.13	45	6.17	318.41	4.90	7.24
10.01 -25.00	66	10.70	74	10.15	1,134.23	17.45	17.19
25.01 - 50.00	26	4.21	30	4.12	998.52	15.36	38.40
50.01 - 100.00	5	0.81	7	0.96	470.78	7.24	94.16
100.01 & Above	3	0.49	7	0.96	1,146.54	17.64	382.18
TOTAL	**617**	**100.00**	**729**	**100.00**	**6,500.00**	**100.00**	10.53

Tarlac Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	788	69.18	974	54.11	887.03	11.68	1.13
5.01 - 10.00	146	12.82	267	14.83	770.47	10.15	5.28
10.01 -25.00	129	11.33	273	15.17	1,445.98	19.04	11.21
25.01 - 50.00	41	3.60	131	7.28	977.84	12.88	23.85
50.01 - 100.00	23	2.02	93	5.17	1,208.59	15.91	52.55
100.01 & Above	12	1.05	62	3.44	2,304.27	30.34	192.02
TOTAL	**1139**	**100.00**	**1800**	**100.00**	**7,594.18**	**100.00**	6.67

Pampanga Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	77	34.22	165	8.30	213.60	5.23	2.77
5.01 - 10.00	43	19.11	101	5.08	332.30	8.13	7.73
10.01 -25.00	57	25.33	480	24.16	917.30	22.44	16.09
25.01 - 50.00	31	13.78	510	25.67	1,118.80	27.37	36.09
50.01 - 100.00	12	5.33	205	10.32	830.00	20.30	69.17
100.01 & Above	5	2.22	526	26.47	676.00	16.54	135.20
TOTAL	**225**	**100.00**	**1987**	**100.00**	**4,088.00**	**100.00**	18.17

NORTH LUZON

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	1577	66.79	1946	39.71	3,977.49	19.05	2.52
5.01 - 10.00	298	12.62	478	9.76	1,812.22	8.68	6.08
10.01 -25.00	305	12.92	881	17.98	4,201.67	20.13	13.78
25.01 - 50.00	111	4.70	685	13.98	3,498.70	16.76	31.52
50.01 - 100.00	48	2.03	313	6.39	2,943.38	14.10	61.32
100.01 & Above	22	0.93	597	12.18	4,443.72	21.29	201.99
TOTAL	**2361**	**100.00**	**4900**	**100.00**	**20,877.18**	**100.00**	8.84

Don Pedro Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	4,229	92.26	4,909	93.24	6,067.20	55.26	1.43
5.01 - 10.00	87	1.90	76	1.44	1,259.50	11.47	14.48
10.01 -25.00	18	0.39	18	0.34	625.30	5.69	34.74
25.01 - 50.00	239	5.21	253	4.81	1,629.10	14.84	6.82
50.01 - 100.00	6	0.13	5	0.09	422.70	3.85	70.45
100.01 & Above	5	0.11	4	0.08	976.30	8.89	195.26
TOTAL	**4584**	**100.00**	**5265**	**100.00**	**10,980.10**	**100.00**	2.40

Balayan Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	3,241.00	76.29	2,776	84.10	4,188.13	25.08	1.29
5.01 - 10.00	412	9.70	270	8.18	1,894.51	11.34	4.60
10.01 -25.00	345	8.12	170	5.15	2,636.29	15.79	7.64
25.01 - 50.00	141	3.32	58	1.76	1,960.31	11.74	13.90
50.01 - 100.00	51	1.20	17	0.51	1,194.24	7.15	23.42
100.01 & Above	58	1.37	10	0.30	4,827.71	28.91	83.24
TOTAL	**4248**	**100.00**	**3301**	**100.00**	**16,701.19**	**100.00**	3.93

PENSUMIL Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	676	86.89	795	78.56	1,278.73	44.76	1.89
5.01 - 10.00	54	6.94	86	8.50	392.50	13.74	7.27
10.01 -25.00	34	4.37	79	7.81	533.72	18.68	15.70
25.01 - 50.00	10	1.29	43	4.25	353.24	12.36	35.32
50.01 - 100.00	4	0.51	9	0.89	298.81	10.46	74.70
100.01 & Above	0	-	0	0.00	0.00	-	
TOTAL	**778**	**100**	**1012**	**100**	**2857**	**100**	3.67

SOUTH LUZON

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	8146	84.77	8480	88.54	11534	37.77	1.42
5.01 - 10.00	553	5.75	432	4.51	3547	11.61	6.41
10.01 -25.00	397	4.13	267	2.79	3795	12.43	9.56
25.01 - 50.00	390	4.06	354	3.70	3943	12.91	10.11
50.01 - 100.00	61	0.63	31	0.32	1916	6.27	31.41
100.01 & Above	63	0.66	14	0.15	5804	19.01	92.13
TOTAL	**9610**	**100.00**	**9578**	**100.00**	**30,538.29**	**100.00**	3.18

Bukidnon Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	11,665	84.28	12,121	79.89	20,354.93	32.54	1.74
5.01 - 10.00	1,270	9.18	1,440	9.49	9,858.63	15.76	7.76
10.01 -25.00	690	4.99	966	6.37	10,545.59	16.86	15.28
25.01 - 50.00	75	0.54	305	2.01	6,317.94	10.10	84.24
50.01 - 100.00	76	0.55	162	1.07	5,396.66	8.63	71.01
100.01 & Above	64	0.46	179	1.18	10,077.36	16.11	157.46
TOTAL	**13,840**	**100.00**	**15,173**	**100.00**	**62,551.11**	**100.00**	4.52

Davao Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	1,858	84.42	1,895	84.22	3,673.23	43.72	1.98
5.01 - 10.00	239	10.86	245	10.89	1,876.72	22.34	7.85
10.01 -25.00	86	3.91	86	3.82	1,329.94	15.83	15.46
25.01 - 50.00	9	0.41	9	0.40	317	3.77	35.22
50.01 - 100.00	7	0.32	11	0.49	730.53	8.69	104.36
100.01 & Above	2	0.09	4	0.18	474.88	5.65	237.44
TOTAL	**2,201**	**100.00**	**2,250**	**100.00**	**8,402.30**	**100.00**	3.82

Cotabato Mill District

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	2570	79.42	3,140	59.59	6,604.93	53.91	2.57
5.01 - 10.00	514	15.88	1,572	29.83	2,595.33	21.18	5.05
10.01 -25.00	132	4.08	460	8.73	2,008.00	16.39	15.21
25.01 - 50.00	17	0.53	53	1.01	637.67	5.20	37.51
50.01 - 100.00	2	0.06	26	0.49	113.50	0.93	56.75
100.01 & Above	1	0.03	18	0.34	293.30	2.39	293.30
TOTAL	**3,236**	**100.00**	**5,269**	**100.00**	**12,252.73**	**100.00**	3.79

MINDANAO

Farm Size	No. of Farmers	Percent No. of Farmers	No. of Farms	Percent No. of Farms	Area (has)	Percent Area	Ave. area/Farmer
Below 5.00 Has.	16,093.00	83.48	17,156.00	75.60	30,633.09	36.82	1.90
5.01 - 10.00	2,023.00	10.49	3,257.00	14.35	14,330.68	17.22	7.08
10.01 -25.00	908.00	4.71	1,512.00	6.66	13,883.53	16.69	15.29
25.01 - 50.00	101.00	0.52	367.00	1.62	7,272.61	8.74	72.01
50.01 - 100.00	85.00	0.44	199.00	0.88	6,240.69	7.50	73.42
100.01 & Above	67.00	0.35	201.00	0.89	10,845.54	13.03	161.87
TOTAL	**19,277.00**	**100.00**	**22,692**	**100.00**	**83,206.14**	**100.00**	4.32

Production and Productivity by Farm Sizes

Table 8. Production and Productivity by farm sizes in Luzon & Mindanao, CY 2019-2020

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	44,651.54	2,052,924.26	4,095,092.51	45.98	91.71	1.99
5.01 - 10.00	19,686.68	966,531.10	1,891,727.41	49.10	96.09	1.96
10.01 -25.00	21,880.51	1,086,496.15	2,093,095.50	49.66	95.66	1.93
25.01 - 50.00	14,713.96	725,935.07	1,375,289.03	49.34	93.47	1.89
50.01 - 100.00	11,099.82	571,489.60	1,060,893.16	51.49	95.58	1.86
100.01 & Above	21,093.25	1,163,186.98	2,170,617.48	55.14	102.91	1.87
TOTAL	**133,125.76**	**6,566,563.17**	**12,686,715.08**	**49.33**	**95.30**	**1.93**

The principle of "economy of scale" applies logically to sugarcane plantation for it to be more productive. The plantation areas in the districts' are marginalized in terms of size that programs and projects (e.g. Block farming) are being geared toward the consolidation of small farms.

Isabela Mill District has 6,500 area planted but only 5,004.17 hectares were harvested due to some planters are unable to milled their canes on the period of milling. Also, in Don Pedro Mill District their data for production is only for sugar

because Progreen Agricorp did not provide the data for production of Bio-ethanol (1,369.86 has.)

Table 9. Production and Productivity by farm sizes in North Luzon, CY 2019-2020

CARSUMCO Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	445.34	15,812.85	29,902.90	35.51	67.15	1.89
5.01 - 10.00	391.04	14,102.64	25,877.96	36.06	66.18	1.83
10.01 -25.00	704.16	25,453.95	47,070.85	36.15	66.85	1.85
25.01 - 50.00	403.54	14,261.24	25,631.36	35.34	63.52	1.80
50.01 - 100.00	434.01	15,014.54	27,958.32	34.59	64.42	1.86
100.01 & Above	316.91	10,864.45	19,778.78	34.28	62.41	1.82
TOTAL	**2,695.00**	**95,509.67**	**176,220.17**	**35.44**	**65.39**	**1.85**

Isabela Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	935.69	36,193.96	92,088.48	38.68	98.42	2.54
5.01 - 10.00	318.41	13,117.05	33,359.28	41.20	104.77	2.54
10.01 -25.00	1,134.23	43,453.99	110,512.19	38.31	97.43	2.54
25.01 - 50.00	998.52	40,512.90	103,032.41	40.57	103.19	2.54
50.01 - 100.00	470.78	19,239.99	48,963.59	40.87	104.01	2.54
100.01 & Above	1,146.54	62,887.75	159,936.13	54.85	139.49	2.54
TOTAL	**5,004.17**	**215,405.64**	**547,892.07**	**43.05**	**109.49**	**2.54**

Tarlac Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	887.03	51,327.28	78,517.70	57.86	88.52	1.53
5.01 - 10.00	770.47	43,976.10	64,507.77	57.08	83.73	1.47
10.01 -25.00	1,445.98	60,258.96	94,359.54	41.67	65.26	1.57
25.01 - 50.00	977.84	51,780.31	80,168.34	52.95	81.99	1.55
50.01 - 100.00	1,208.59	60,797.86	95,119.83	50.30	78.70	1.56
100.01 & Above	2,304.27	110,204.49	181,461.48	47.83	78.75	1.65
TOTAL	**7,594.18**	**378,345.00**	**594,134.66**	49.82	78.24	1.57

Pampanga Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	213.60	6,560.58	10,597.17	30.71	49.61	1.62
5.01 - 10.00	332.30	11,940.35	19,147.44	35.93	57.62	1.60
10.01 -25.00	917.30	27,940.40	45,267.35	30.46	49.35	1.62
25.01 - 50.00	1,118.80	26,993.50	43,688.59	24.13	39.05	1.62
50.01 - 100.00	830.00	20,952.11	34,257.10	25.24	41.27	1.64
100.01 & Above	676.00	19,084.53	31,323.11	28.23	46.34	1.64
TOTAL	**4,088.00**	**113,471.47**	**184,280.76**	**27.76**	**45.08**	**1.62**

NORTH LUZON

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	1,545.97	73,700.71	119,017.77	47.67	76.99	1.61
5.01 - 10.00	1,493.81	70,019.09	109,533.17	46.87	73.32	1.56
10.01 -25.00	3,067.44	113,653.31	186,697.74	37.05	60.86	1.64
25.01 - 50.00	2,500.18	93,035.05	149,488.29	37.21	59.79	1.61
50.01 - 100.00	2,472.60	96,764.51	157,335.25	39.13	63.63	1.63
100.01 & Above	3,297.18	140,153.47	232,563.37	42.51	70.53	1.66
TOTAL	14,377.18	587,326.14	954,635.59	**40.85**	**66.40**	**1.63**

Table 10. Production and Productivity by farm sizes in South Luzon, CY 2019-2020

Don Pedro Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	6,067.20	219,121.50	414,726.80	36.12	68.36	1.89
5.01 - 10.00	1,259.50	51,729.30	96,471.30	41.07	76.59	1.86
10.01 -25.00	625.30	26,417.30	48,461.70	42.25	77.50	1.83
25.01 - 50.00	1,629.10	63,643.20	118,373.50	39.07	72.66	1.86
50.01 - 100.00	422.70	17,834.30	33,468.20	42.19	79.18	1.88
100.01 & Above	976.30	41,612.50	74,557.30	42.62	76.37	1.79
TOTAL	**10,980.10**	**420,358.10**	**786,058.80**	**38.28**	**71.59**	**1.87**

Balayan Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	4,188.13	180,592.17	328,223.75	43.12	78.37	1.82
5.01 - 10.00	1,894.51	87,886.32	158,589.43	46.39	83.71	1.80
10.01 -25.00	2,636.29	128,413.69	224,954.63	48.71	85.33	1.75
25.01 - 50.00	1,960.31	97,956.69	176,643.53	49.97	90.11	1.80
50.01 - 100.00	1,194.24	59,389.56	112,127.19	49.73	93.89	1.89
100.01 & Above	4,827.71	248,771.90	476,639.81	51.53	98.73	1.92
TOTAL	**16,701.19**	**803,010.31**	**1,477,178.34**	**48.08**	**88.45**	**1.84**

Table 11. Production and Productivity by farm sizes in Mindanao, CY 2019-2020

Bukidnon Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	20,354.93	1,040,808.64	2,171,056.83	51.13	106.66	2.09
5.01 - 10.00	9,858.63	531,567.69	1,082,379.43	53.92	109.79	2.04
10.01 -25.00	10,545.59	603,070.77	1,196,291.96	57.19	113.44	1.98
25.01 - 50.00	6,317.94	369,605.63	717,212.21	58.50	113.52	1.94
50.01 - 100.00	5,396.66	325,413.14	619,104.72	60.30	114.72	1.90
100.01 & Above	10,077.36	634,168.26	1,160,811.10	62.93	115.19	1.83
TOTAL	**62,551.11**	**3,504,634.13**	**6,946,856.24**	**56.03**	**111.06**	**1.98**

Davao Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	3,673.23	137,819.59	269,284.49	37.52	73.31	1.95
5.01 - 10.00	1,876.72	70,752.27	135,442.74	37.70	72.17	1.91
10.01 -25.00	1,329.94	50,311.63	96,620.14	37.83	72.65	1.92
25.01 - 50.00	317.00	12,103.06	21,426.03	38.18	67.59	1.77
50.01 - 100.00	730.53	29,221.20	52,700.43	40.00	72.14	1.80
100.01 & Above	474.88	22,642.28	40,027.64	47.68	84.29	1.77
TOTAL	**8,402.30**	**322,850.03**	**615,501.47**	**38.42**	**73.25**	**1.91**

Cotabato Mill District

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	6,607.66	311,234.00	615,604.84	47.10	93.17	1.98
5.01 - 10.00	2,592.60	123,589.04	248,175.38	47.67	95.72	2.01
10.01 -25.00	2,008.00	93,881.46	188,656.12	46.75	93.95	2.01
25.01 - 50.00	637.67	32,347.00	64,811.32	50.73	101.64	2.00
50.01 - 100.00	113.50	5,555.66	11,145.44	48.95	98.20	2.01
100.01 & Above	293.30	12,950.82	26,082.14	44.16	88.93	2.01
TOTAL	**12,252.73**	**579,557.97**	**1,154,475.24**	**47.30**	**94.22**	**1.99**

MINDANAO

Farm Size	Area Harvested (has.)	Total Production		Average Productivity		
		TC	LKg	TC/Ha	LKg/Ha	LKg/TC
Below 5.00 Has.	30,635.82	1,489,862.23	3,055,946.16	48.63	99.75	2.05
5.01 - 10.00	14,327.95	725,908.99	1,465,997.54	50.66	102.32	2.02
10.01 -25.00	13,883.53	747,263.85	1,481,568.22	53.82	106.71	1.98
25.01 - 50.00	7,272.61	414,055.69	803,449.56	56.93	110.48	1.94
50.01 - 100.00	6,240.69	360,190.00	682,950.60	57.72	109.44	1.90
100.01 & Above	10,845.54	669,761.37	1,226,920.88	61.75	113.13	1.83
TOTAL	**83,206.14**	**4,407,042.13**	**8,716,832.95**	**52.97**	**104.76**	**1.98**

Average Cost of Production

Table 12. Cost and Return analysis in Luzon & Mindanao, CY 2019-2020

Farm Operations	Average cost per hectare		% COP	
	Plant cane	Ratoon cane	Plant cane	Ratoon cane
1. Lime Application			-	-
2. Land preparation	8,811.11	-	13.68	-
Plowing	3,769.36	-	5.85	-
Harowing	3,111.73	-	4.83	-
Furrowing	1,989.34	-	3.09	-
3. Seed pieces	16,221.62	-	25.18	-
4. Seed Preparation	1,942.47	-	3.02	-
5. Seed Treatment	2,159.17	-	3.35	-
6. Planting	3,558.86	746.30	5.52	2.00
7. Replanting	823.31	1,136.12	1.28	3.04
8. Fertilizer Application			-	-
a. Cost of Fertilizer	11,299.87	11,391.81	17.54	30.51
b. Cost of Application	810.80	858.06	1.26	2.30
9. Cultivation	3,654.20	3,530.08	5.67	9.45
a. Middle Busting	765.56	551.67	1.19	1.48
b. 1st Off- Barring	1,157.36	1,161.88	1.80	3.11
2nd Off- Barring	959.44	959.44	1.49	2.57
c. Hilling- up	1,393.06	1,397.81	2.16	3.74
10. Weeding				
a. Manual	3,328.93	3,390.51	5.17	9.08
b. Weedicide & Application	2,197.32	2,057.91	3.41	5.51
c. Side Cleaning	1,566.72	1,602.82	2.43	4.29
11. Control of Pest & Diseases				
12. Irrigat ion	1,885.37	1,805.02	2.93	4.83
13. Drainage	300.00	250.00	0.47	0.67
14. Cutting and loading	16,079.78	13,315.39	24.96	35.66
13. Truck driver s allowance	4,234.17	3,505.42	6.57	9.39
15. Hauling	14,164.60	12,005.44	21.99	32.15
Driver Allowance	2,215.28	1,625.00	3.44	4.35
16. Stubble shaving	116.67	844.57	0.18	2.26
Trash burning	-	306.72	-	0.82
17. Trash Clearing	-	691.91	-	1.85
18. Others	1,913.96	2,453.75	2.97	6.57
			-	-
Tota l Direct Cost - TDC	**64,421.11**	**37,340.56**	**100.00**	**100.00**
Land rental	9,579.36	10,159.86		
Estimated Administrative Cost	5,223.14	3,293.28		
Interest	-	-		
Depreciation Cost	2,725.32	3,175.03		
Miscellaneous	1,633.58	1,350.22		
TOTAL COST - TC	**73,565.39**	**46,345.49**		
	-	-		
Average TC per Ha.	57.90	48.90		
Average LKg per Ha.	103.35	86.41		
Average Kg. Molasses per Ha.	1,948.14	1,635.38		
Price of Sugar Per LKg	1,474.29	1,469.39		
Price of Molasses Per Kilo	11.86	11.89		
RETURNS (Planter's Share %)	67.00	67.00		
Sales from Sugar	99,733.78	83,018.70		
Sales from Molasses	14,780.94	12,600.89		
Trucking Subsidy	5,592.80	5,576.80		
TOTAL	**92,171.05**	**77,053.35**		
NET RETURNS	18,605.67	30,707.85		
Less Total Direct Cost	**27,749.94**	**39,712.79**		
Less Total Cost	**18,605.67**	**30,707.85**		

Represented by the table is the distribution of cost per item in sugarcane farming. Fertilization, cutting & loading and hauling of canes to the mill commands the highest percentage.

Average Gross Production in Luzon and Mindanao

The AGP is a reference for land evaluation in terms of the level of productivity across mill districts down to the Barangay level.

Table 14. Average gross production in Luzon & Mindanao mill districts, CY 2019-2020

Mill District	Area Planted (Has.)	AGP (LKG/HA)				RATIO		Ave. LKG/ TC	Ave. Mol./ TC (Kg/TC)	Planter/Miller Sharing
		Plant Cane		Ratoon Cane		PC	RC			
		Lowest	Highest	Lowest	Highest					
North Luzon	**20,877.85**	**46.03**	**69.70**	**46.71**	**69.85**	**27.77**	**76.05**	**1.67**	**43.44**	
Carsumco	2,695.64	51.56	57.34	58.24	68.34	21.18	78.82	1.83	28.71	60/40
Isabela	6,500.00	30.44	56.13	26.18	53.02	31.99	83.29	1.63	81.71	
Tarlac	7,594.21	73.12	54.05	84.80	62.68	30.92	69.08	1.58	34.24	67/33
Pampanga	4,088.00	29.00	111.29	17.60	95.34	27.00	73.00	1.62	29.11	68/32
South Luzon	**27,576.30**	**70.06**	**88.39**	**46.67**	**89.35**	**15.49**	**51.60**	**1.73**	**44.59**	
Don Pedro	10,980.00	44.68	116.90	11.63	121.80	22.33	77.67	1.87	51.32	68/32
Balayan	13,739.30	103.58	70.34	96.83	63.25	23.81	76.19	1.83	39.98	67/33
Pensumil	2,857.00	61.93	77.93	31.55	83.01	0.34	0.94	1.51	42.48	60/40
Mindanao	**74,803.84**	**111.91**	**124.83**	**86.16**	**109.97**	**10.56**	**93.88**	**2.10**	**32.36**	
Bukidnon	62,551.11	98.94	119.66	81.14	126.30	9.52	90.08	2.04	32.09	66/34
Cotabato	12,252.73	124.88	129.99	91.18	93.64	11.59	97.67	2.16	32.64	62/38
Luzon & Mindanao	**123,257.99**	**76.00**	**94.31**	**59.85**	**89.72**	**17.94**	**73.84**	**1.83**	**40.13**	

Note: Data for AGP of Don Pedro was derived from the individual planter's production from CADPI and URC-SURE. This is because Progreen Agricorp did not provide any individual planter's production to SRA. Therefore, the AGP data is only for the canes milled for sugar at CADPI and URC-SURE. Also, Davao mill district did not submit data for AGP.

Production Support Services

- **Nursery farms (Seed-Farms)**

Table 24. SRA-SIDA Funded HYV Nursery Farms in Luzon & Mindanao, CY 2019-2020

Mill District	No. of Nursery	Location of Nursery	Variety Planted	Area Planted (Has.)	Canepoints Produced/Distributed	No. of Recipients
CARSUMCO	1	Lakambini, Tuao	Phil 99-1793	2.00	42.00	14
	1	San Vicente, Tuao	Phil 99-1793	2.00	24.40	5
Pampanga	1	LAREC	Phil 2000-2569	4.00	18.61	3
Don Pedro	1	Lian, Batangas (Brgy. Prenza and Brgy. Malaruhatan)	PSR 01-105 & VMC 84-77	6.70	396.41	107
	1	Ibaan, Batangas (Brgy. Calamias and Brgy. Mabalor)	PSR 01-105	7.57		
	1	Nasugbu, Batangas (Brgy. Cogunan and Brgy. Lumbangan)	PSR 01-105	3.73		
Balayan	1	Sico, San Juan, Batangas	Phil 2006-1899, Phil 2006-2289	2.00	40.00	10
PENSUMIL	1	Salvacion, Guinaban, Ocampo, Cam. Sur	Phil 99-1793	2.00	7.00	2
	1	Sto. Niño, Ocampo	Phil 99-1793	2.00	9.00	4
Bukidnon	1	San Jose, Quezon	PSR 2007-195, PHIL 8013, PSR 2002-247 and 2007-66	9.43	143.5	19
	1	Batangan, Valencia City (BF5A and BF6a)	PSR 2007-66		22.5	2
	1	Magsaysay, Kuya, Maramag (BIPA 1)	PSR 2002-272		14	4
	1	Dagumbaan, Maramag (USPBAI 1)	PSR 2002-272		21	3
	1	Butong, Quezon (CAMCI)	PSR 2002-272		20	1
	1	MAilag, Valencia City (BPPMPC)	PSR 2002-272		15	1
	1	Dologon, Maramag (BMDDFI)	PHIL-8013		24	2
Davao	1	Tologan,Hagonoy Davao del Sur	PHIL-97-3933, PSR-2000-171, VMC-95-152, PSR-2000-105, PSR-2001-136, PSR-2002-247, PS-862, PHIL-99-1793, PHIL 80-13, PSR 2000-11	12.00	325.62	50
Cotabato	1	Kilada, Matalam	V 2000-171, 2000-247, P-80-13	12.00	429.00	54
TOTAL	**18**			**65.43**	**1552.04**	**281**

- **Farm Tractor Services**

Table 26. Tractor services in Luzon & Mindanao, CY 2019-2020

Mill District	SRA Sugar - ACEF			MDDC Sugar - ACEF		
	No. of units	Area Mechanized (has.)	No of. Planters/Beneficiaries	No. of units	Area Mechanized (has.)	No. of Planters/Beneficiaries
Tarlac	4	*no report	*no report	1	*no report	*no report
Balayan	4	*no report	*no report	1	*no report	*no report
Bukidnon	11	2,271.13	364.00	0	*no report	*no report
Davao	5	201.23	117.00	0	*no report	*no report
Total	**24**	**2,472.36**	**481.00**	0	*no report	*no report

**All units of tractors in Tarlac were unserviceable*

- **Soil Sampling Services**

This vital component of the extension service delivered by field officers to farmer-clienteles determines the amount, kind and grade of fertilizers needed by specific sampled farms.

Table 27. Soil Sampling activities in Luzon & Mindanao, CY 2019-2020

Mill District	No. of Soil Samples	Area Covered (Ha.)	No. of Planters served
CARSUMCO	75.00	124.78	46.00
Isabela	27.00	118.45	44.00
Pampanga	102.00	157.13	84.00
Don Pedro	186.00	209.90	155.00
Balayan	166.00	286.79	166.00
PENSUMIL	36.00	32.25	21.00
Bukidnon	184.00	290.62	128.00
Davao	94.00	245.33	61.00
Cotabato	103.00	187.00	97.00
Total	**973.00**	**1,652.25**	**802.00**

- **Road Rehabilitation (SIDA Project)**

Table 28. Road rehabilitation for Luzon & M indanao, CY 2019-2020

Mill District	Road rehabilitation			Sugarcane hauling projects	
	Km. of Road Rehabilitated	Date	Remarks	Tons cane hauled	Number of Planters served
CARSUMCO	10.00	Jan-20	on-going	*no report	*no report
Cotabato	9.00	Sep-20	*no report	25,000	23
Total	**19.00**			**25,000.00**	**23**

- List of Available Tractors

Farm machineries in the mill districts will also dictate the farm-mechanization program apt for the district.

List of Available Tractors, CY 2019-2020

Table 29. List of available tractors in Luzon & Mindanao, CY 2019-2020

Mill District	Operator	Units
CARSUMCO	CARSUMCO	9
	Private	56
	Total	**65**
Isabela	AKIM Karim Services	70
	Private	25
	Block Farm	4
	Total	**99**

Extension Services, Education and Training

- **Trainings/seminars conducted**

Continuous training of sugarcane farmers were still being conducted to empower them and enhance their standard of living.

Table 30. Trainings/Seminars conducted in Luzon & Mindanao, CY 2019-2020

Mill District	Subject/Title	Date Conducted	Place Conducted	No. of Participants	Funded by
CARSUMCO	Validation of 2019 Block Farm Projects	27-28-Jan-20	San Juan, Tuao, and Warat, Piat, Cagayan	63	SRA
	INCEPTION MEETING AND AWARDING OF CASH TRANSFER	29-Jan-20	LNF Farm and Development Center, Lakambini, Tuao, Cagayan	21	SRA
	INCEPTION MEETING	24-Jul-20	Barangay Gymnasium, San Juan, Tuao, Cagayan	35	SRA
	INCEPTION MEETING	27-Jul-20	Barangay Chapel, Warat, Piat, Cagayan	28	SRA
Isabela	INCEPTION MEETING	7-Jul-20	LIGA NG MGA BARANGAY, CONFERENCE HALL, SAN MARIANO, ISABELA	24	SRA
	INCEPTION MEETING	8-Jul-20	BABALAG EAST, RIZAL, KALINGA	21	SRA
	CASH AND FOOD SUBSIDY FOR THE MARGINAL FARMERS AND FISHERS	2-Dec-20	NUNGNUNGAN, CAUAYAN CITY, ISABELA	32	SRA
Pampanga	Inception Meeting				
	Cash and Food Subsidy for Marginalized Farmers and Fisher folks (CFSMFF) Launching				
Don Pedro	Inception meeting	13-Feb-20	Laureano Bauyon's Residence, Brgy. Munting Indang, Nasugbu, Batangas	50	SRA
	Validation meeting	14-Feb-20	Nila Chuidian's Residence, Brgy. Catandaan, Nasugbu, Batangas	20	SRA
	Validation meeting	14-Feb-20	Reynaldo Binay's Residence, Brgy. Talon, Tuy, Batangas	34	SRA
	Inception meeting batch 1	15-Sep-20	Nila Chuidian's Residence, Brgy. Catandaan, Nasugbu, Batangas	9	SRA
	Inception meeting batch 2	15-Sep-20	Nila Chuidian's Residence, Brgy. Catandaan, Nasugbu, Batangas	8	SRA
	Inception meeting batch 1	16-Sep-20	Reynaldo Binay's Residence, Brgy. Talon, Tuy, Batangas	10	SRA
	Inception meeting batch 2	16-Sep-20	Reynaldo Binay's Residence, Brgy. Talon, Tuy, Batangas	10	SRA
	Inception meeting batch 3	17-Sep-20	Reynaldo Binay's Residence, Brgy. Talon, Tuy, Batangas	6	SRA
Balayan	Webinar on Farm Mechanization	10-Sep-20	SRA Balayan MD Office	355	
PENSUMIL					
Bukidnon	Inception meeting	6-Aug-20	Don Carlos, Bukidnon	30	SRA
	Inception meeting	7-Aug-20	San Miguel, Maramag, Bukidnon	36	SRA
Davao	Sugarcane Technology Transfer Seminars			586	SRA, DOLE, DSWD, MDDC and DASUCECO
Cotabato	Validation Seminar	17-Feb-20	Marbel, Matalam, Cot	21	SRA
	Orientation seminar	18-Feb-20	Calunasan, M'lang, Cot	18	SRA
	Orientation on liquidation of start up Capital Assistance	15-Sep-20	Estado, Matalam, Cot	21	Estado BF
	Orientation on liquidation of start up Capital Assistance	29-Sep-20	Nabundasan Bf	19	Nabundasan BF
	Tractor dispatching and simple loan management system for block farm	26-Nov-20	Gokotan Block farm	19	MDDC
Total				**1,476**	

- **Assistance to MDDC**

The MDDC being the leader in the implementation of development projects in the district had to be monitored and assisted for the welfare of the small farmers.

Table 31. Assistance to MDDCs, Coops, Assns. And Private Individuals in Luzon & Mindanao, CY 2019-2020

Mill District	No. of Cases	Subject/Purpose
CARSUMCO	17	Preparation of MDDC minutes of the meeting, resolution & letters and giving technical assistances to associations/ cooperative and private individuals.
Isabela	45	Preparation of MDDC minutes of the meeting, resolution & letters and giving technical assistances to associations/ cooperative and private individuals.
Tarlac	6	Technical assistance for planters associations regarding Priority Projects
Pampanga	8	Technical assistance for FMR endorsement, Scholarship endorsement, meeting for BOD, RSBSA Signing and SCP loan endorsement
Don Pedro	3	Ocular inspection, signing of RSBSA and SCP loan endorsement
Balayan	25	Various projects of MDDC such as HYV propagation, FMR, LBP loan, Coop's production, PMT –SCP project, AWS, SRA projects, Japan NPGA, etc.
PENSUMIL	2	Signing of RSBSA and SCP loan endorsement
Bukidnon	20	Technical assistance or MDDC Nursery (Rapid Propagation project) and Start-up Capital for BF
Davao		*no report
Cotabato	17	Preparation of terminal report, EXECOM mtng, monitoring of Rapid nursery and Bio Organic fert, monthly BOD meeting, confer on FMR project field inspection trips and Block farming Orientation
Total	**143**	

- **Conduct of Farm and Home Visits**

Part of the regular routine of the field officers is their constant communication with their various clients with the objective of teaching and at the same time knowing their needs.

Table 32. Conduct of Farm and Home Visits in Luzon & Mindanao, CY 2019-2020

Mill District	No. of Farm & Home Visits	Subject/Purpose
CARSUMCO	296	Supervision and provision of technical assistance to the planters (i. e. collection of soil samples, pre & postharvest operations of sugarcane production).
Isabela	192	Supervision and provision of technical assistance to the planters (i. e. collection of soil samples, pre & postharvest operations of sugarcane production).
Tarlac	639	Supervision and provision of technical assistance to the planters (i. e. collection of soil samples, pre & postharvest operations of sugarcane production).
Pampanga	670	HYV's, tractor services, pest & diseases, training seminars, Fall Army Worms infestation, production data
Don Pedro	396	Extension activities such as technical assistance, information disseminations, surveys, monitoring, field assessment, among many others
Balayan	1,120	Cane stand, pest and diseases, BOF production, expansion areas, weeds problem and control, crop estimation and farm sampling, seedbed establishment, farm profiling, SRA Block farm initiation, benchmarking, financial assistance from LBP and other agency, etc.
PENSUMIL	937	Field Visit/monitoring/Gathering information about HYV's, BF consultation and SCP
Bukidnon	2,786	Technology in sugarcane growing and SRA-SIDA Project
Davao		*no report
Cotabato	502	Area inspection, consultation of pest and disease occurrence, suitability, drainage, assistance to block farms, FMR survey, access to farm to mill road, consultations with the road right of way, block farm coaching, monitoring of cost of production, status of expansions, documentation of the arrivals of SIDA support equipment/implements to block farms, block farms assembly meetings and assistance to equipment delivery personnel of the equipment received by block farms.

- **Techno-guides Distributed**

  Learning is not only through verbal communication but also print media contributes a lot to help the farmers. Different reading materials can be availed by farmers at the mill district offices.

Table 34. Mill district information materials distributed in Luzon & Mindanao, CY 2019-2020

Mill District	Title	No. Distributed
CARSUMCO	COVID-19 Prevention and Management Sugarcane Planters Guide	150
Isabela	My TCane Tubo Checks	45
	COVID-19 PREVENTION AND MANAGEMENT SUGARCANE PLANTERS GUIDE	67
Tarlac	COVID-19 Prevention and Management Sugarcane Planters Guide	30
Pampanga	COVID-19 Prevention and Management Sugarcane Planters Guide	80
Don Pedro	COVID-19 Prevention and Management Sugarcane Planters Guide	80
Balayan	COVID-19 Prevention and Management Sugarcane Planters Guide	80
PENSUMIL		
Bukidnon	My Tone Cane Tubo Checks	18
	COVID-19 Prevention and Management Sugarcane Planters Guide	35
Cotabato	My Tone Cane Tubo Checks	26
TOTAL		**611**

Other Mill District Data

- **Irrigation Projects**

  Most of the plantation areas in Luzon-Mindanao region are rain-fed, table shows the identified sites with available irrigation facilities utilized in sugarcane farming.

Table 35. Irrigation projects in Luzon & Mindanao, CY 2019-2020

Mill District	Type	Location	Irrigated area (Ha)
CARSUMCO	Small Farm Reservoir (SFR)	Naganacan, Sta. Maria, Isabela	60.00
	Shallow Tube Well (STW)	Sta. Maria, Isabela	10.00
	Shallow Tube Well (STW)	Villabuena, Sta. Maria, Isabela	10.00
Isabela	Shallow Tube Well (STW)	Sta. Maria, Isabela	10.00
	Shallow Tube Well (STW)	Villabuena, Sta. Maria, Isabela	10.00
Tarlac	Shallow Tube Well (STW)	San Raymundo,Ramos, Tarlac	96.00
	Shallow Tube Well (STW)	Guiteb, Ramos, Tarlac	52.00
	Shallow Tube Well (STW)	Batangbatang , Victoria, Tarlac	60.00
	Shallow Tube Well (STW)	San Jacinto, Victoria, Tarlac	60.00
	Shallow Tube Well (STW)	Apulid, Paniqui, Tarlac	64.00
	Shallow Tube Well (STW)	Tinang, Concepcion, Tarlac	52.00
	Shallow Tube Well (STW)	Magaspac, Gerona, Tarlac	12.00
Pampanga	Shallow Tube Well (STW)	Dampe , Floridablanca, Pampanga	5.00
	Shallow Tube Well (STW)	Arenas, Arayat, Pampanga	5.00
	Solar Powered Irrigation System	Paguiruan, Floridablanca, Pampanga	2.00
	Shallow Tube Well (STW)		15.00
	Sprinkler Type		20.00
	Shallow Tube Well (STW)	Maliwalu, Bacolor	250.00
	Shallow Tube Well (STW)	San Antonio, Arayat	35.00
Don Pedro			
Balayan			
PENSUMIL			
Bukidnon	Sprinkler type	OADI Farm, San Jose, Quezon	250.00
	National Irrigation Assn.	First Fruit Valencia City, Bukidnon	20.00
TOTAL			**1,098.00**

- **Level of Fertilization**

Nitrogenous fertilizers (inorganic) are the most commonly used fertilizer by sugarcane farmers. Levels of application needs to be monitored as too high level and too low level are both detrimental for the sugarcane crop.

Table 36. Average fertilizer usage per hectare in Luzon & Mindanao, CY 2019-2020

	Estimated Level of Inorganic Fertilizer in Kg/Ha		
Mill District	**N**	**P**	**K**
CARSUMCO	152.00	14.00	14.00
Isabela	118.89	37.08	8.54
Tarlac	230.00	30.00	
Pampanga	210.00		
Balayan	230.00		
Bukidnon	32.43		
Cotabato	97.00	37.00	95.00
Average	**152.90**	**29.52**	**39.18**

- **Urea, Lime, Organic Fertilizer, Mudpress Distribution and Other kinds of Chemical Fertilizer**

Table 37. Distribution of urea, organic fertilizer, and mudpress in Luzon & Mindanao, CY 2019-2020

Mill District	Urea distribution		Organic Fertilizer Distribution		Mudpress Distribution		Lime Distribution		Other kind of chemical fertilizer, 14-14-14	
	No. of bags distributed	No. of recipients	No. of bags distributed	No. of recipients	Truckloads distributed	No. of recipients	No. of bags distributed	No. of recipients	No. of bags distributed	No. of recipients
CARSUMCO	18,575.00				285.00				5,841.00	
Tarlac	45,560.00								54,300.00	
Pampanga	25,200.00				20.00				170,270.00	
Don Pedro	503.00	95	1,375.00	43			3,700.00	52	1,617.00	95
Balayan	68,039.00						4,545.00		217,112.00	
PENSUMIL									22,856.00	
Bukidnon	92,963.00				1,650.00		267,294.55		211,836.00	
Davao			1,399.00	61	3,009.50	54				
Cotabato	37,985.00				1.00				11,815.00	
Total	**288,825.00**	**95.00**	**2,774.00**	**104.00**	**4,965.50**	**54.00**	**275,539.55**	**52.00**	**695,647.00**	**95.00**

- **ARCs and ARBs in Luzon and Mindanao**

The listings of the agrarian reform beneficiaries are relevant information to monitor their congregation as per location for possible inclusion on development programs.

Table 38. Agrarian Reform Communities (ARC's) and Beneficiaries (ARB's) in Luzon & Mindanao, CY 2019-2020

Mill District	No. of Municipalit	No. of Barangay	No. of ARCs	No. of ARBs	Area (Has.)
North Luzon					
CARSUMCO	6	18	8	327	2700
Isabela	5	30	7	8323	109471.93
Tarlac	7	11	11	4379	3453
Pampanga	4	5	5	161	300.7
Sub-total	**17**	**34**	**24**	**4867**	**6,453.70**
South Luzon					
Don Pedro	5	21	21	3171	0
Balayan	18	29	0	2052	0
PENSUMIL	4	6	6	348	539.1441
Sub-total	**27**	**56**	**27**	**5571**	**539.14**
Mindanao					
Bukidnon	16	16	30	35772	65507.413
Davao	0	0	0	0	0
Cotabato	7	10	10	882	2159
Sub-total	**23**	**26**	**40**	**36654**	**67666.413**
Grand Total	**67**	**116**	**91**	**47,092.00**	**74,659.26**

Extension Service Personnel of Luzon & Mindanao

MILL DISTRICT	OFFICE ADDRESS	MILL DISTRICT PERSONNEL	POSITION
QUEZON CITY	Sugar Center Bldg., North Avenue, Diliman, Quezon City	Adel V. Catuira	OIC-Chief Agriculturist
		Evelyn B. Estanislao	SSRS II-BF Coordinator
		Marissa L. Tiu	Clerk III
		Jessa Mae A. Adino	Agriculturist I
		Joan D. Cantonjos	Agriculturist I
		Cynthia A. Cabaña	Agriculturist I
		Camille Joyce G. Martin	Agriculturist I
CARSUMCO	SRA-CARSUMCO Office Lakambini, Tuao, Cagayan 3528	Lito M. Caranguian	MDO
		ALDRINE B. PASCUAL	Agriculturist I
		ROLANDO S. MIGUEL II	Agriculturist I
		SAMUEL D. AGUSTIN	Agriculturist I
		EDMELYN J. TARIGA	Project Evaluation Officer I
Isabela	Sitio Breeding, Upper Upi, Gamu, Isabela	Lito M. Caranguian	MDO
		ANGELIE KATE BALIUAG	Agriculturist I
		ANALIZA L. GANNAD	Agriculturist I
		RODEL L. DE GUZMAN	Project Evaluation Officer I
		ROSETOM A. MARZAN	Farm Surveyor
Tarlac	SRA Tarlac #2 Magalang Concepcion Road, Dutung A Matas, Concepcion, Tarlac. c/o Christopher Reynoso	Lucio S. Santiago, III	MDO
		ALVIN G. DIONISIO	Agriculturist I
		EUGENIO J. VALENCIA	Agriculturist I
		RAFAEL M. GUINTO	Agriculturist I
		MARIFE O. ALARCIO	Agriculturist I
		DARRYL F. AUSTRIA	Farm Surveyor
Pampanga	LAREC, Paguiruan, Floridablanca, Pampanga	Celso T. Ersando	MDO
		JOHNNY Z. AGSAOAY, JR.	Agriculturist I
		REYSON M. GUESE	Agriculturist I
		MARA LOU L. MIRANDA	Project Evaluation Officer I
		JEFFREY S. SERRAON	Farm Surveyor
Don Pedro	SRA Don Pedro CADP Compound, Lumbangan, Nasugbu, Batangas	Zyrus Oliver P. Montiel	MDO
		CHRISTIAN M. IPORAC	Agriculturist I
		MARK ANJHO MERCADO	Agriculturist I
		JEROME B. PEREZ	Agriculturist I
		ZOREN O. SUELLO	Project Evaluation Officer I
		MARK JOHN P. VILLAFRANCA	Farm Surveyor
Balayan	SRA Balayan, 2/F Wheeltek, Nasugbu-Balayan Highway, Bgy. Lanatan, Balayan, Batangas	Joel G. Ronario	MDO
		EDNA B. LAGAGINO	Agriculturist I
		NIKKO FAJARDO	Agriculturist I
		MICHAEL KYLE B. ROMULO	Agriculturist I
		KIMBERLY C. RODRIGUEZ	Project Evaluation Officer I
PENSUMIL	SRA Pensumil DA-RFU 5 Compound, San Agustin, Pili, Camarines Sur	Salvador B. Ocampo	MDO
		Maria Teresa M. Caballero	Agriculturist II
		CARLTON SAMSON	Agriculturist I
		RANDY EMBUESTRO	Agriculturist I
		CHRISTIAN AQUINO	Agriculturist I
		SAMUEL SALVINO	Project Evaluation Officer I
		RAMON JESTER T. LAUANG	Farm Surveyor
Bukidnon	SRA Bukidnon MDDCFI Building, Dologon, Maramag, Bukidnon	Edgar V. Aclao, Sr.	MDO
		Alan F. Buque	Agriculturist II
		CHRISTIAN JOSEPH S. CALVO	Agriculturist I
		HECTOR A. TABILLA	Agriculturist I
		HILARIO A. SARMIENTO	Agriculturist I
		LORJUNE D. BOISIER	Agriculturist I
		METCHELL B. ALIMBOBONG	Agriculturist I
		EL MARK O. JAKOSALEM	Agriculturist I
		WILFREDO A. MAPANO	SENIOR AGRICULTURIST
		ANNA MARIE AGOR	Project Evaluation Officer I
		SIRVILLANO M. LONGAKIT	Farm Surveyor
		CARLOWEH P. BLANCO	Farm Surveyor
Davao	SRA Davao DASUCECO Compound, Guihing, Hagonoy, Davao Del Sur	Edgar V. Aclao, Sr.	MDO
		JOEY S. TANDUYAN	Agriculturist I
		RONALD S. ORDANEZA	Agriculturist I
		RESTY OBISO	Agriculturist I
		CLARK JUDE CORTES	Project Evaluation Officer I
		JERICK O. ACLAO	Farm Surveyor
Cotabato	SRA Cotabato Krystyn Commercial building, National Highway, Poblacion, Matalam,Cotabato,9406	Ireneo F. Nuñez	MDO
		Joel P. Araneta	Agriculturist II
		IAN M. CORDERO	Agriculturist I
		MARY JOY S. PANAN	Agriculturist I
		REX P. DUMALABA	Agriculturist I
		KENT ADRIAN BACOLOD	Project Evaluation Officer I
		ABDUL M. ANDOG	Farm Surveyor

RAPID PROPAGATION AND DISTRIBUTION OF HYVS PROJECT

The Sugarcane Industry Development Act of 2015 or R.A. 10659 is a law promoting the competitiveness of the sugarcane industry through various interventions whose major aim is to increase farm productivity. Under this law, the Rapid Propagation and Distribution of Sugarcane High Yielding Varieties Project (GAA 2016&2017) was one of the interventions conceptualized. The program aims to establish and develop as many HYV nurseries in the mill district as possible in order to provide farmers readily available new HYV planting materials whenever needed. It also intends to contribute to the increase in farm yield, increase in the adoption of HYVs and serve the needs of neighboring mill districts in times of calamity. The program intends to distribute the HYV cane points for "free" or at a subsidized price to target farmer beneficiaries depending on the financial capability of the implementer.

As per Memorandum Circular No. 15 (Series of 2017) or *"Guidelines for the Establishment of GAA-Funded HYV Nurseries"* funding shall be released through "cash transfer" to the beneficiary or implementing SRA Accredited CSOs or SUCs which is subject to liquidation pursuant to COA and accounting rules and regulations. For those who are not yet accredited, they are subject to an "in kind" release of grant pursuant to government procurement law.

FUND ALLOCATION AS PER BOARD RESOLUTION NO. 2017-326

The allocation of Luzon and Mindanao sums up to a total of P15,864,441.00 (Luzon-P6,984,629.10 & Mindanao-P8,879,812.00). For the year 2020, an additional budget amounting to P11,691,756.00 from the GAA 16 & 17 re-budgeted 2020 was obtained from the excess funds of the dropped projects.

Table 1. Fund allocation per mill district.

MILL DISTRICT	AREA PLANTED/DISTRICT (ha)	ALLOCATION (PhP)
Isabela	5,000	517,810.00
Cagayan	5,260	544,736.00
Tarlac	10,865	1,125,200.00
Pampanga	6,332	655,754.00
Balayan	15,128	1,566,684.00
Don Pedro	20,894	2,163,822.00
Pensumil	3,965	410,623.00
Bukidnon	65,326	6,765,285.00
Davao	10,339	1,070,727.00
Cotabato	10,079	1,043,800.00
TOTAL	**153,188**	**15,864,441.00**

Locations of farms planted with sugarcane HYVs from the nursery of URC Batangas MDDFI.

Nurseries in Prenza, Lian, Batangas (5.7 has) and Malaruhatan (1 ha.), Lian, Batangas , Don Pedro MDDFI

Listed below are the established nurseries in the districts of Luzon and Mindanao with a total area of 149.07 has. For 2020, 9.8has nurseries have been established which are as follows: URC Batangas MDDFI (3.8has), Minsalirac FLA (2has), Lumintao FMPC (2has), and Marbel SPA (2has).

Table 2. Established nurseries under the program

Mill District	No.	Proponent/ Implementor	Area (has.)	Status
Isabela	1	Isabela State University	6	Terminated
Cagayan	2	SVK Marketing Cooperative	2	On-going
	3	Sampaguita Farmers Marketing Cooperative	2	On-going
	4	United Small Sugarcane Producers Cooperative	2	On-going
	5	Lakambini Farmers Producers Cooperative	2	On-going
Balayan	6	URC Batangas Mill District Development Foundation, Inc.	25.3	On-going
Don Pedro	7	Don Pedro Mill District Dev	18	On-going
Pensumil	8	Tinangis Upland Farmers Consumers Cooperative	2	Terminated
	9	Guinaban Multi-Purpose Cooperative	2	On-going
	10	Isarog Sugarcane Planters Organization	2	On-going
Bukidnon	11	Bukidnon Mill District Development Council, Inc.	55	On-going
	12	Minsalirac Farmers Livelihood Association	2	Newly established
	13	Lumintao Farmers Multi-Purpose Cooperative	2	
Davao	14	Davao Mill District Development Council Foundation, Inc.	12.53	On-going
Cotabato	15	Cotabato Mill District Development Council, Inc.	12.23	On-going
	16	Marbel Sugarcane Planters Association	2	On-going

FUND/CASH TRANSFER

Table 3. Fund releases through cash transfer

Proponent	Area (ha)	Fund Transferred (PhP)	Balance from the Approved Budget(PhP)
Lakambini Farmers Marketing Cooperative	2	30,000.00	-
Don Pedro MDDFI	18	432,000.00	-
URC Batangas MDDFI	3.8	327,120.00	-
Isarog Sugarcane Planters Organization	2	42,000.00	-
Minsalirac Farmers Livelihood Association	2	170,856.00	-
Lumintao Farmers Multi-Purpose Cooperative	2	170,856.00	-

A total of P1,172,832.00 was released to four (4) SRA-Accredited Block Farms and two (2) MDDCs through cash transfer scheme. Due to the situation brought by the pandemic, face to face gatherings was prohibited. Despite that, remote inception meeting was made possible through an online video conference which was done together with the Luminatao FMPC and Minsalirac FLA.

Remote inception meeting with Minsalirac FLA block farm

CUTBACK AND CANEPOINTS DISTRIBUTION

For the whole year, the cutback of cane points has reached 1,823.85 lacsa with a corresponding total of 283 farmer beneficiaries. Fifteen different high yielding varieties were planted and are being distributed all throughout the mill districts. This year also witnessed the mapping of the areas planted with the distributed sugarcane HYVs from the established nurseries in order to monitor the extent of planting. The projected area planted with HYVs based from the distribution as of 2020 is 434.84 has.

Table 4. Quarterly distribution and number of canepoint recipients

MILL DISTRICT	No.	Implementor	Area	Canepoints Produced (lacsa)					No. of Recipients					Total Area Planted
			(ha)	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total	
CAGAYAN	1	SVK Marketing Cooperative	2			24.4		**24.4**			5		**5**	6.1
	2	Lakambini Farmers Producers Cooperative	2			42		**42**			14		**14**	10.5
DON PEDRO	3	Don Pedro Mill District Development Foundation Inc.	18		267	165.5	12.7	**445.61**		58	45	2	**105**	111.4
BALAYAN	4	URC Batangas Mill District Development Foundation Inc.	25.3	430.68		32		**462.68**	57		5		**62**	109.68
PENSUMIL	5	Guinaban Multi-Purpose Cooperative	2		7			**7**		2			**2**	2.1
	6	Isarog Sugarcane Producers Organization	2			9		**9**			4		**4**	2.25
BUKIDNON	7	Bukidnon MDDFI	55		24.5	103.5	132	**260**		2	8	13	**23**	50.624
DAVAO	8	Davao MDDCFI	12		112	78.62	58.36	**248.66**		19	15	4	**38**	62.17
COTABATO	9	Cotabato MDDCFI	12	59	119	110.5	36	**324.5**	5	14	10	1	**30**	80.03
TOTAL				489.68	530	565.5	239.1	**1,823.85**	62	95	106	20	**283**	**434.84**

One of the sites in the Don Pedro MDDFI located in Prenza, Lian, Batangas was able to reach the third cutback for 2020, whereas another site in Malaruhatan, Lian, Batangas was for milling due to the lack of takers in the area. Meanwhile, other sites continued with their usual operations and are ready for cutback. Twenty (20) hectares of first ratoon canes of URC Batangas MDDFI are for cutback for the first quarter of 2021.

On the other hand, both GMPC and ISPO suffered from the series of tropical cyclones that greatly affected not only the nurseries but the entire sugarcane industry in the district. Among the typhoons that hit the region, four (Quinta, Rolly, Tonyo, and Ulysses) have landed and one was a super typhoon. The extent of damage to the GMPC and ISPO has reached to 80% and 70% broken stalks, respectively, and 100% lodged canes. Both nurseries have decided to mill the remaining standing canes and use the proceeds to re-establish the nurseries through stubble shaving and cultivation.

Lodged canes (left image) and remaining standing canes (right image) affected by the series of tropical cyclones that hit the Bicol Region - GMPC. Lodged canes (left image) and remaining standing canes (right image) affected by the series of tropical cyclones that

Newly planted sugarcane of the HYV recipient in Lakambini FPC.

The same holds true for the nurseries of the CARSUMCO MD. During the fourth quarter, non-stop rains for almost two months caused by the tail-end of typhoons have resulted to severe flooding in the Cagayan province. This flooding made roads inaccessible to the nurseries which hampered the operations and cutback of cane points. The rehabilitation of inaccessible roads has become one of the priorities of the implementers for the continuous farm operations in the nursery. Meanwhile, the Lakambini FPC and SVK Marketing Cooperative were able to conduct cutback operations and distribution successfully during the third quarter. Monitoring of farms with HYVs from the nursery is also being monitored by the assigned personnel.

The nursery of Marbel SPA has suffered from drought during the end of the first until the second quarter and during the first cutback schedule there were no takers of the cane points. The lack of takers was caused by the misalignment of cutback period to the planting season. The matured standing canes were harvested and milled.

Harvesting of the matured canes for milling of Marbel SPA.

FACTORY SERVICES AND RESEARCH DIVISION (FSRD)
RDE

A. FSRD Personnel

Organic FSRD Personnel

1. Rosaline R. Agosto - Engineer III
2. Emilia R. Chu - Engineer III (TWG-SIDA RDE)
3. Rosalina B. Tan - Engineer II
4. Carolina L. Pedalizo - Engineer II
5. Lovenessa M. Calamba - Science Research Specialist II
6. Dyna R. Tienda - Science Research Specialist II
7. Ma. Theresa J. Villamor - Science Research Specialist II
8. Ruel A. Del Rosario - Science Research Specialist II
9. Susan S. Jingco - Science Aide

Detailed to the RDE, Environmental Laboratory

10. Ma. Belina N. Plaza - Senior Science Research Specialist

Detailed to FSRD, RDE, Bacolod

11. Rogelio T. Genzola - Engineer III

Detailed to the Extension Services

12. Evelyn Estanislao - Sr. Science Res. Specialist

Contract of Service

1. Kevin Martin C. Faltado - Science Research Specialist II
2. Don Van Karl DC. Israel - Science Research Specialist II
3. Kim A. Benzon - Science Research Technician II

B. CONTINUING PROJECTS

FSRD continues to evaluate the performance of sugar factories through technical audits which include capacity assessments, process performance, energy efficiency levels and environmental compliance to industry standards.

1. Capacity and Performance Appraisal of Sugar Mills (Mill Audit)

On the 1st quarter of the year 2020, a comprehensive report was prepared for BUSCO conducted on January 26-Feb. 4, 2020 and Dasuceco conducted on March 8-17, 2020 Different stations were discussed such as cane yard/cane reception station, mill preparatory station, milling station/mill tandem, clarifier station, evaporator/boiling house station, pan boiling station, RVF/filtration station, crystallizer station, power house station, boiler station, different scales, laboratory station (procedures/system), and safety /environmental management system/wastewater treatment facility station. To support the discussions of the report, extensive research on related technical papers/references were done. Double checking on the computations of data results and evaluation of the findings were also performed to provide accurateness of the report. Annexes of raw data were also tabulated as support to the results presented.

Submitted the final/comprehensive report to BUSCO and DASUCECO on the 3rd quarter of 2020.

2. Energy Efficiency/Conservation and Cogeneration Project (Energy Audit)

An energy audit was conducted last Dec 8-14, 2019 at CASA and the energy audit team has been preparing then for a comprehensive report for the different energy consuming equipment/stations on the first quarter of 2020. Continuous evaluation / validation / computations / data analysis / revisions on the results derived had been done on the 2nd quarter. The extensive report was submitted to CASA on May 2020.

3. SAGE Environmental Monitoring

Environmental monitoring through the Special Action Group for Environment (SAGE) is a service offered by the Division to the sugar mills which focuses on monitoring waste water effluents and stationary source emissions. The SRA-SAGE Team is an accredited third party Environmental Monitoring Body by the Department of Environment and Natural Resources (DENR). SAGE applied for its renewal as Accredited Third Party Source Emission Testing Firm for USEPA Methods 1 to 5 – Particulate Matter (PM) and was granted by DENR on January 24, 2019 with Rosaline R. Agosto as QA/QC Manager (SAT No: 2019-12, SAT No: 2019-12-T2 & SAT No: 2019-27) and Rogelio T. Genzola (SAT No: 2019-12) , Ma. Lucia C. Sanchez (SAT No: 2019-27) and Dyna R. Tienda (SAT No: 2019-12-T2) as Team Leaders.

Sugarmills Monitored:

Sugarmill	Date	Parameters
CAT	January 9-10 (Resampling)	• PM, SO2 (Kiln1)
	January 31	• Ambient-PM10
	Feb. 27	• Ambient-PM10
CADPI	Jan. 27-30	• PM, SO2, CO (B3 & B5) • NOx, CO (Genset)
	Feb. 4-6	• PM, SO2, CO (B3)
	Mar. 9-13	• PM, SO2, CO (B2, B3, B4)

Environmental reports were prepared after the conduct of each stack sampling prior to release of laboratory results of analysis from environmental laboratory.

Due to the current situation brought by the Covid19 pandemic, SAGE scheduled air monitoring/sampling was cancelled at Pensumil Sugar Corp., Central Azucarera Don Pedro (2nd Qtr 2020 sampling schedule), and Green Futures Innovation, Inc. (GFII) and to be scheduled for the next crop year instead.

C. TRAINING/SEMINAR, WORKSHOP AND MEETINGS

Due to ECQ, no trainings/seminars were conducted or attended by the FSRD personnel.

D. DEVELOPMENTAL PROJECTS/RESEARCHES

1. Capacity and Efficiency Appraisal of Sugar Mills Through Impact Assessment (Post Assessment)

As part of the sustainability plan of the Capacity and Efficiency Assessment (CEA) of Sugar Mills (Mill Audit), an Impact Assessment program was program for the 3rd quarter. However, because of the COVID 19 pandemic, the scheduled Impact Assessment at URC-Balayan, OPTION and URC-Tolong were cancelled.

The post-audit activity aims to determine to what extent the CEA Program has benefited the factories through a survey derived from the result and recommendations of the capacity and efficiency assessment and on-site verification of the changes done in the operation. It also provides the FSRD with necessary information, comments and suggestions on how to further improve the conduct of CAE program.

The survey included in the impact assessment tackles improvement done on the cane quality, extraction plant efficiency, evaporation efficiency, vacuum filtration, pan boiling as well as the changes in the capacity of major equipment of sugar manufacturing and the rated capacity of the factory.

E. TECHNICAL PUBLICATIONS

1. Annual Synopsis of Production & Performance Data- Crop Year 2018-2019

The annual publication embodies data and information pertaining to the production and performance records of all operating mills in the country excerpted or computed from their respective final weekly factory statements for the season being reviewed. These are distributed to the contributing mills and various SRA units.

The CY 2018-2019 issue was completed in the 3rd quarter. To date a total of 56 complimentary copies were sent to 28 operating mills. Complimentary copies were also given to PSMA and PPSPD. The rest of the copies are being made available to various sugar industry constituent, as well as with other industries, seeking access to data and information of such kind.

For ***Crop Year 2019-2020***, collection of all Final Weekly Factory Statement was undertaken and initial data gathering/collation was accomplished.

2. Annual Compendium of Phil. Sugar Refineries-Refining Year 2019

The annual publication contains data and information pertaining to the production and performance records of all the operating refineries in the Philippines either picked or computed from their respective final weekly refinery statements for the season being reviewed. Data and information therein are made available to various industry clientele for whatever downstream activities these data may be of use.

Annual Compendium for Refining Year 2019 was also completed in the 3rd quarter. 2 complimentary copies each were sent out to the 12 operating sugar refineries. To date a total of 26 complimentary copies were already given out.

For ***Refining Year 2020***, collection of all Final Weekly Refinery Statement was undertaken and initial data gathering/collation was being done.

3. Milling and Refining Hardware 2020 Edition

The Sugar Milling Hardware and Refining Hardware is one of FSRD's publications wherein a compilation of local sugar factories and sugar refineries equipment inventories were being updated every 5 years. Modifications, improvement undertaken, rehabilitated and newly installed equipment were likewise included in the compilation. The data generated are being used as basis in determining the imbalances in the factory; it also serves as reference for future operation/process-related projects.

Review and revision of the survey forms/questionnaires were done and finalized on the 3rd quarter of 2020. Due to pandemic, survey forms to be accomplished thru actual interview from the sugar mills and refineries were just sent instead thru e-mail/courier for ten (10) sugar mill with auxiliary refineries. To-date, two (2) sugarmills responded, i.e. Dasuceco and Cosuceco.

F. OTHER ASSIGNMENTS

1. Data Digitization (Sugarmill Profiling) Project

The project was initiated in lieu of the postponement/cancellation of programmed audits. It was aimed to improve the accessibility of Synopsis Data through digitized system. Coordination was made with MIS for the formulation of the program and system.

FRSD personnel were given assigned Annual Synopsis publication to encode and verified. Annual Synopsis Data from Crop Year 1980-1981 to 2017-2018 (38 crop years) publication were for encoding database generation. To date, re-checking and final verification of data is still on-going and also finalization of program by MIS.

2. Being the Pollution Control Officer (PCO) of the SRA Environmental Laboratory

One personnel from FSRD was assigned as the PCO of SRA Environmental Laboratory. The SRA Environmental Laboratory is a recognized laboratory by the DENR-EMB. To sustain the accreditation given by the DENR, the laboratory must comply with the necessary requirements. The details of the accomplishment done in 2019 was tabulated in the Progress Report while the proposal of matters to be executed this 2020 was specified in the SRA Activity Plan for DENR-EMB Requirements 2020.

3. Assistance to other section/division

Also, one COS of the division was tasked to assists the SRA Laboratory in the engineer's report re: the application of their permit to operate for fumehood and genset and also their sewage permit as per DENR-EMB/LLDA requirements.

4. QMS Matters

One personnel also from FSRD was designated as the RDE's Overall Compliance Officer to QMS. She continuously communicated/coordinated, with Extension Services Division and FSRD re: QMS documents for compliance/submissions of QMS reports.

5. Maintenance and Calibrations of SAGE equipment/apparatus/instruments

Maintained/cleaned/calibrated SAGE instruments/equipment/apparatus as per SAGE/QMS program/schedule of activities

ADMINISTRATIVE & FINANCE DEPARTMENT (Luzon/Mindanao)

BUDGET & TREASURY DIVISION

EBITDA AND BUDGET/FUND UTILIZATION RATE (B/FUR)

(11 month financial operations and performance ending November 30, 2020

SUGAR REGULATORY ADMINISTRATION
EBITDA AND BUDGET/FUND UTILIZATION RATE (B/FUR)
11-Month Financial Operations and Performance Ending November 30, 2020

PARTICULARS	11/30/2020 EBITDA ACTUAL	FUND UTILIZATION REPORT					
		CURRENT YEAR 11/30/2020	PRIOR YEAR 12/31/2019			TOTAL	ACTUAL
		CORP FUND & TRUST FUNDS	CORP FUND & TRUST FUNDS	SIDA FUND			
Cash balance, beginning - 1/1/2020			1,108,199,576	1,013,407,330		2,121,606,906	
Gross corporate revenues	606,055,746	606,055,746				606,055,746	
Total cash available for operations before SIDA	**606,055,746**	**606,055,746**	**1,108,199,576**	**1,013,407,330**		**2,727,662,652**	
Add: SIDA fund							
SIDA cash transfers			-	-			
Total cash available for operations after 2019 SIDA	**606,055,746**	**606,055,746**	**1,108,199,576**	**1,013,407,330**		**2,727,662,652**	
Less: Operating expenditures							
Personnel services	154,899,817	154,899,817				154,899,817	
Maintenance and other operating expenses	168,036,698	160,139,378		195,242,910		355,382,288	
Capital outlay		15,014,180		10,475,350		25,489,530	
Prior years/months accounts payable/SIDA cash transfers			200,243,135	123,782,938		324,026,073	
Depreciation	28,604,270		-	-			
Utilization/liquidation/disbursements - SIDA and others				180,101,865		180,101,865	
2019/2020 Income tax/prior year's cash dividends to NG - Bayanihan Act/ 2019 cash dividends		73,739,158	659,900,000			733,639,158	
Total current operating expenditures/fund utilization	**351,540,785**	**403,792,533**	**860,143,135**	**509,603,063**		**1,773,538,731**	
Net income before tax	**254,514,961**						
Less: Income tax	73,739,158						
Net income after tax	**180,775,803**						
Cash balance,end - 11/30/2020	**n/a**	**160,683,484**	**248,056,441**	**560,724,369**		**969,464,294**	
Add back: Taxes & depreciation							
Taxes	73,739,158						
Depreciation	28,604,270						
EBITDA amount/total fund utilization/disbursed	**283,119,231**	**403,792,533**	**860,143,135**	**509,603,063**		**1,773,538,731**	
EBITDA margin rate/fund utilization rate	**47%**	**67%**	**78%**	**50%**			**84%**

Prepared and submitted by:

ERLINDA J. ABACAN
Chief accountant & OIC - Office of the Manager III, AFD

Noted by:

ATTY. BRANDO D. NOROÑA
Deputy Administrator for Administrative and Finance

GENERAL ADMINISTRATIVE DIVISION

A. General Administrative Division

The General Administrative Division is responsible in formulating and implementing policies/guidelines, systems and procedures related to HR planning, Recruitment, Selection and Development, Acquisition and Procurement activities, Preventive maintenance of SRA buildings, Motor Vehicles, Equipment and Facilities, Work, Health and Safety conditions, Performance monitoring/evaluation/management, benefits and salary administration, employee relations, counselling, career planning and organization structuring and development, and administers the same. Monitor the procurement of supplies and equipment for the whole SRA in Luzon and Mindanao offices and the timely payment of supplies and equipment. The Division also manages personnel records and official files/documents of SRA for mailing and safekeeping, monitors timely payment of space rentals, monthly billings of electrical, water, telecommunication (telephone/mobile phone).

The General Administrative Division managed to implement appropriate action to minimize the covid-19 in the work place such as:

1. *Procurement of alcohol and other supplies;*
2. *Issuance of face mask to its employees and face shield for select employees/COS (Monitoring Officers/Drivers);*
3. *Issuance of temperature scanner to the drivers;*
4. *Provide shuttle service for employees/COS;*
5. *Implement safety and health protocols;*
6. *Placement of Temperature Scanner in the lobby of Main and Annex Building;*
7. *Observation of Social Distancing in the workplace;*
8. *Placement of acrylic barrier in the board room;*
9. *Disinfect of workplace, lobby, canteen, social hall, comfort rooms and path ways;*

The Units under the General Administrative Division and their corresponding accomplishments for this year are as follows:

A. Transport and Building Maintenance Section

Manages the maintenance of SRA building and office premises including its facilities, electrical connections/equipment, grounds, water and drainage systems. Also, the unit undertakes maintenance of generators and three (3) unit elevators, planning, lay-outing, scheduling, monitoring, maintenance of lessees spaces for rent. The unit also performed repainting of office space of different SRA departments.

With the assistance of the drivers/mechanic under the job order arrangement, they undertake the maintenance of all seventeen (17) official vehicles. All the drivers of the BTMS provides shuttles services to SRA employees, continuously provides transportations services to the RD&E Department during the energy audit and Regulation Department for monitoring of sugar in the market and different warehouses in Metro Manila and nearby provinces.

Other accomplishments for this year are as follows:

- Plumbing, repair of water supply and sewer line.
- Maintenance of SRA garden, plants and ground.
- Painting of Roofing/application of water proofing of the Main Building
- Annual Pest and Termite Control
- Ordinary maintenance of SRA vehicles such as Change Oil, replacement of minor parts and other minor preventive maintenance.
- Installed, replaced and repaired electrical fixtures (e.g. lights, fans, power supply for air-conditioning units and telephone lines).
- Monitoring and Inspection of the following:
  - *(a) Rehabilitation/de-clogging of drainage system (SRA compound)*
  - *(b) Bathroom Room Fixtures*
  - *(c) Telephone lines*

(d) Generator
(e) Transformer
(f) And other equipment and facilities

- Registration and Insurance of Motor Vehicles
- Insurance of SRA building in Quezon City and LAREC at Floridablanca, Pampanga
- Repair of temporary shed for waste materials
- Repair and painting of common comfort room

In sum, the building and Transport Maintenance Section performed the preventive maintenance of buildings, equipment, motor vehicles, the details of which are as follows:

Actual	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
Preventive Maintenance of Buildings	5	5	5	5	5	5	6	4	4	5	6	4	**59**
Preventive Maintenance of Equipment	34	35	35	34	34	34	34	35	35	34	34	34	**309**
Preventive Maintenance of Motor Vehicles	56	54	54	54	54	54	54	64	64	64	64	64	**700**

B. Property and Procurement Section

Undertake the procurement of office equipment, supplies and materials as well as the updating of properties and equipment ledgers. Tagged as the Staff behind the successful implementation of the programs, projects and activities of other departments/offices, including SIDA project mainly because they worked on the preparation of documents leading to procurement of equipment, supplies, including labor (i.e. purchase/job request, purchase/job orders, canvas and delivery). Likewise they maintained memorandum receipt of all employees subject to verification.

Supplies such as alcohol, face mask, face shield, temperature scanner were bought from the Procurement Service of DBM. Despite the Covid-19 pandemic, the PPS managed to conduct physical inventory of property, plant and equipment to check the physical condition or serviceability of the equipment in Quezon City and Luzon Area.

Accomplishments for this year are as follows:

- Procurement of Equipment, Supplies and materials under COB, including under the SIDA project
- Processing of Purchase Request
- Publication of request for quotation in the PhilGeps, Abstract of Quotation, BAC Resolutions. Notice of Awards (NOA) , Notice to Proceeds (NTP), and Purchase Order
- Processing of Job Request
- Processing of request for Quotations in the PhilsGeps, Abstract of Quotations, BAC Resolutions, Notice of Awards (NOA), Notice to Proceeds (NTP), and Job Order
- Procurement of Services (Consultancy, others Services)
- Issuance of Supplies and Materials to end-user
- Preparation of Vouchers
- Repair of equipment
- Physical Inventory of Property, Plant and Equipment (On-Going)

All procurements were prepared and processed on a timely manner and met the required specifications and delivered to the end-user.

Actual	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
Purchase Order	26	33	17	13	18	53	49	34	49	43	47	57	439
Job Order	37	32	18	3	14	11	17	21	23	18	21	30	245

C. Human Resource Section

The focal unit in charge of recruitment and selection, training and/or staff development, movement/ details/assignments of personnel, transfers, and processing the retirement papers of personnel. Coordinated the training, scheduled seminar/workshops, health and wellness programs for the benefit of all employees. Maintain management of personnel records (201 file) of SRA employees. In charge of all personnel transactions and acts in all requests and documentation for the issuance of Contract of Service/Job Order for JO personnel.

Updating, Plantilla of Personnel for submission to the Department of Budget and Management (DBM), Civil Service Commission (CSC) and Department of Agriculture (DA).
The HRS is regularly updating leave Credit of all employees, assisting employees concerns, two (2) staff were assigned alternately as liaison officers to GSIS, PAG-IBIG and Philhealth. One (1) staff acted as liaison officer to the office of the Department of Foreign Affairs (DFA) to follow-up travel authorities and other relevant documents of Key official and employee needed for international conferences/meetings/personal travels.

Issues, certifications of service record, employment and compensation, queries and requests of other agencies, which concern SRA employees.

The Human Resource Section conducted trainings activities as approved by the Personnel Development Committee based on agreed schedules.

Actual	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
No of Trainings Implemented	0	0	0	0	0	0	0	3	2	3	0	2	**10**

Implementation, of Strategic Performance Management System (SPMS) with rating.

Actual	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
No, of Forms submitted	0	1	1	0	0	2	0	0	0	0	0	1	**5**

D. Records Section

Undertakes updating and upkeep of physical records of SRA, Issuance of agency communications, special orders, sugar orders, memorandum and other relevant information materials to industry stakeholders.

- The SRA used the services of LBC for the delivery of mail requirements of SRA.
- Records provided assistance to officials and employees in retrieval of issuances for reference purposes, photocopying and duplication activities of official documents and letterheads.
- Released/fax documents to Government Agency, Private Offices and individuals.
- Received, recorded incoming documents from SRA Bacolod, Field office and other Government and Private agencies.

The Records Section completed the following tasked as required by SRA to the Sugar stakeholder.

Actual	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Total*
Dissemination of Information to SRA Organization and Sugarcane Stakeholders	300	300	400	450	400	300	400	400	350	400	400	400	***4,500***
Records/ Documents filed	300	300	300	400	400	350	350	350	450	400	450	350	***4,400***
Request of different SRA Departments for Reproduction of documents	80	80	85	80	85	90	90	85	85	90	85	80	***1,015***

E. Medical

Renders medical assistance to employees in times of emergency, monitoring of blood pressures and other medical cases as follows:

- Responded to calls from different divisions regarding their health conditions especially on emergency cases that needs referral to the nearest hospital.
- Processed Mutual Assistance Program (MAP) and Disbursement Vouchers to the bereaved family of SRA employees, including the retired employees.
- Inventory of medicines, requested monthly medical supplies.
- Dispensed over the counter medicines for minor aches, fever, hypertension, cough and colds
- Procured over the counter medicines and medical supplies once a month.
- Performed wound dressing for some minor wounds.
- Assisted in administering the Flu vaccine to SRA employees.
- Monitor employees who have symptoms of Covid-19
- Assist employees to undergo swab testing
- Advices employees on covid-19
- Prepare reports on Covid-19
- Assist the procurement of supplies such as alcohol, face mask, face shield and other supplies

II. Other Administrative Works:

- Prepared and facilitated the renewal of Contract of Lease of SRA tenants for CY 2020.
- Continuous coordination with SRA tenants on the issues/concerns related to space rental, statement of accounts and payments and building maintenance/upkeep.
- Reviewed the Performance Appraisal Reports of Administrative personnel.
- Monitoring of cleanliness of SRA grounds and surroundings, management and disposal of waste, landscaping of open spaces and maintenance of ornamental plants and trees.
- Monitored the rentals of transient vendors on the open space
- Consolidated the monthly and annual accomplishment reports of the Four (4) Sections under the Administrative Division.
- Monitored the submission of reports of the General Administrative Division.

SUPPORT SERVICES

INTERNAL AUDIT DEPARTMENT

The Internal Audit Department had always intended to maintain the adequacy and effectiveness of SRA's internal control system and the quality of each unit's performance in carrying out their assigned responsibilities in the conduct of operations and special programs/projects and delivery of service. Provision of a reasonable assurance that SRA's risk management, governance and internal control processes are well-designed and operating effectively are of utmost importance. We are independent from the operations we evaluate and report to the Top Level Officials of the Organization.

The Internal Audit Team aims to facilitate more effective management of SRA plans and programs laid out annually and is determined to improve any weaknesses of SRA (if there's any) in the operations or internal controls of each area/ department.

The scope of internal audit is broad and involves matters relating to operations and management controls. It covers the system and procedures of:

- Research, Development and Extension Department (RDE)
- Regulation Department
- Human Resource (HR)/Administrative and Finance
- External Sugarcane Industry

For the FY 2020, the Internal Audit Department still came in strong in supporting the mission and vision of SRA aligned with the agency's strategic priorities in spite of the difficulties and impact brought about by the COVID19 pandemic.

I. AUDIT ENGAGEMENTS

A. Process Audit/Review

Audit activities consist of providing the management/sugar board references of auditable areas, individual audit proposals, priority and spot-on audit services. For FY 2020, a total of **240 audit and process review related transactions/activities** were conducted. Among of the activities includes the following:

1.1. BAC Related Transactions on Procurement

Upon the directive of the Top Management/Sugar Board, the Internal Audit Department conducts initial assessment of procurement activities following a pre-determined criteria from pre-procurement stage up to BAC recommendation to HOPE for an award of the project. The following projects were covered in the initial compliance and process review conducted by IAD for CY 2020, with reports and recommendations submitted to the Sugar Board for review and consideration (***Total of 12 BAC related audit/review reports for CY 2020***):

a)	Supply and Delivery of Agricultural Lime
b)	Irrigation Project
c)	Supply and Delivery of Two (2) Units Brand New Farm Tractors with Implements
d)	Supply and Delivery of One (1) Unit Atomic Absorption Spectrophotometer (AAS)
e)	Supply and Delivery of Thirty-Four (34) Units Brand New Tractors with Implements
f)	Purchase of Thirty (30) Units Sugarcane Grabber/Wheeled Excavator
g)	Supply and Delivery of Tractors and Farm Implements
h)	Supply and Delivery of Vehicles
i)	Supply and Delivery of Thirty (30) Units Sugarcane Grabber/Wheeled Excavator
j)	Supply and Delivery of Five (5) Units Brand New Hauling Trucks
k)	Supply and Delivery of Twenty-Five (25) Sets Farm Implements (Moldboard Plow, Trailing Disc Harrow and Furrower)
l)	Supply and Delivery of Various Chemicals (Re-Bidding)

Scope/Limitation of the Process Review conducted:

- Assessment focused on the implementation of established controls under the procurement process thru Public Bidding.
- Review and assessment results were based only on the documents endorsed by Office of the Board Secretary-Office of the Sugar Board. Any documents which may have not been included but necessary in the process/audit review may had form part of the observation/s.
- The participation of IAD in this stage of procurement activity is not a requisite neither part of procurement law requirement. It is only upon the directive of the Sugar Board/Top Management that specific procurement transactions endorsed to this department with BAC/RBAC recommendation for an approval of an award were subjected for initial review and assessment
- Still subject to pre-audit by the Accounting Division and Post-audit by COA
- Recommendations are still subject for Sugar Board/Top Management consideration.

1.2 Audit of system/process- Compliance to SRA Rules and Regulations

IAD conducted a random review and audit on varying records and justifications on issues of system/process/personnel compliance to SRA Rules and Regulations. IAD provided recommendations to the Top Management for consideration towards process improvement and operational efficiency. A total of **52 audit related transactions** covered the following areas:

- Unliquidated Cash Advances- RDE(L/M) on OPSI related activities (04-001)
- Review and assessment of SRA's procedural and documentation requirements on the hiring of COS in SRA Bacolod (04-004)
- Reviewed validity of Travel Orders for Purposes of Airline Ticket/Fare Procurement and Other related transactions for Financial Claims
- Personnel/SRA officers performance review
  - Personnel loafing during office hours (05-001)
  - Travel Order related concern (Legaspi 05-008)
- Administrative related transaction
  - overtime service/ claims
  - non-submission of required accomplishment reports for WFH arrangements during lockdown period (05-022)
- Review of Liquidation of SRA Personnel on Cash Advance of P250,500 for Phenology Project (06-019)
- Procurement related projects
- Infrastructure project implemented
- Delayed reimbursement of prior year Financial Claims
- Regulatory policies for enforcement
- Fact-finding investigation on complaints lodged in 8888 Citizen's Complaint Hotline
- Legal Matters on Administrative Complaints

1.3 Audit of Memorandum of Agreement (MOA) on Adaptability Test (04-002/05-001)

The Internal Audit Department submitted an audit observation report to Top Management on the MOA between SRA and the Cooperator on the Project of farm multi locality adaptability tests of newly released variety of sugarcane under Farmer's Management Strategy (Mechanized Planting and Harvesting. IAD covered its review based on the context of the MOA and the project itself.

1.4. Comments/inputs- MOA on Phenology Studies on Crop Management and Model Development for Sugarcane Test (04-003)

Duly endorsed by Top management, IAD submitted its comments on the MOA of RDE research project/study undertaken by SRA with the cooperators as five experimental sites. IAD has noted some observations subject for further review and consideration by the Management.

1.5. Review on the Documentation of SRA-PCAARD-UPLB-Phase 2 of SARAI project (06-011)

Upon management directive, the IAD conducted the review and submitted an evaluation report on the documentation of SRA-PCAARD-UPLB-Phase 2 of SARAI project. Observations and recommendations were provided, subject for further review and consideration by the Top Management.

1.6. Audit on Corporate Social Responsibility (CSR) Processing of Cash Advances and Liquidations)

This audit review aims to bring to light the circumstances encompassing the transactions involved in the grant and utilization of Cash Advance bounded on the conditions and documentations of the procurement process up to liquidations of the fund allotted for the 4th quarter of 2020 CSR activities. Observations and recommendations were presented for management action and considerations.

1.7. Assessment and Review of Vehicular Accident involving SRA Official Vehicle in Cotabato Mill District Extension Office

The audit review aims to establish the conditions based on the assessed documented information that will substantiate the adherence with the guidelines and policies in reporting of incidents involving SRA official service/farm vehicle. Observations and recommendations were also presented for management action and considerations.

B. Verification Audit/s

1. Continuing Audit of Leave Credits

Continuing review and audit of SRA employees leave credits to determine the correctness, validity and accuracy of information presented in the daily time records, actual earned leave of employees posted on their leave credit ledgers and the consistency in the application of pertinent CSC rules and regulations. ***Total of 52 SRA employees leave credits audit for the FY 2020.***

- Verification Audit Report on leave credits – Report of discrepancy in the computation of absences of SRA employee/s for the period 2009, 2010 and 2011.

2. Verification of Sugar Withdrawal Reports/Liens Collections as against Annex A and UCRRDRs reported by ROs

The audit of SRA liens collection and remittance is a continuing activity of IAD on Annex A which summarizes the up to date status of liens collections and remittances for the total raw and refined sugar withdrawn based on the SMS reported. Any audit findings/observations are being reported to the Top Management as well as to the concerned process area for consideration, review and process improvement. Submitted initial (monthly) verification and observation report on Annex A/UCRRDR submitted by the SRED-ROs for Crop Year 2019-2020. ***A total of 124 verification audit conducted for FY 2020.***

II. MONITORING ACTIVITIES (Audit Related)

1. Inspection on SRA Bacolod/ LGAREC Infrastructure Projects

Acting upon the directive of the Administrator, IAD conducted on-site inspections on the status of three (3) SRA Visayas Infrastructure projects. Inspection reports were submitted to Top management for consideration of cited findings and recommendations.

2. Continuing Monitoring of CBW/Food Processor's Operation

Upon receipt of notice, IAD took part in the monitoring activities of Regulation Department- Luzon and Mindanao based food processors prior to their application for renewal of allocation. IAD assessed and reviewed the controls and compliance of CBW/Food Processor's operations as well as observed the performance of the Regulations Officers as members of the monitoring team.

III. SUPPORT FUNCTION & TECHNICAL ASSISTANCE TO THE TOP MANAGEMENT / SUGAR BOARD

A. Policy Review and other relevant Technical Assistance to Top Management/Sugar Board

Total of **145 activities/transactions** completed relative to support functions/policy review by providing inputs/comments on various regulatory policies and industry related concerns:

Among of the topics covered includes:

- Early review and assessment of compliance to PBB guidelines
- Inputs and review- Late Filing of Travel Claims and Airfare ticket-related transactions (re-booking)
- Recommended actions based on the inspection report of SRA Bacolod/LGAREC infrastructure projects
- 8888 Citizen's Complaints related matters
- Intensification of communication initiatives
- Rendition of Overtime of COS personnel
- Monitoring of SRA's Compliance with the Ease of Doing Business and Efficient Delivery of Services
- Travel Related Concerns for process improvement
- Review of transactions regarding request for budget entitlement on communication expenses
- Improvement on the SRA System of Reporting Collection and Remittance of SRA Liens
- Catch-up plan to improve 2019 Performance Scorecard
- Disposal of Waste Materials
- OGCC Legal opinion on matters related to complaints against SRA employee/s
- SRA Agency-Level Control Matrix for CY 2019 (COA)
- COA-AOM review related activities
- Inputs and comments on various industry concern raised by stakeholders (eg. Philsucor concerns; open letters to SRA)
- Review and inputs on application of SRA regulatory policies for enforcement by SRA employees/ officers
- Ensuring the Validity of all Travel Orders for Purposes of Airline Ticket/Fare Procurement and for Other Financial Claims
- Updating of QMS Controlled Annual Plans for 2020
- Administrative Order on "General Standard for Food Hygiene" repealing Administrative Order No. 153, series of 2004.
- Comment on the appeal of COS to be renewed as JO in Bukidnon MDDC
- SRA Bacolod on COVID related financial benefits claimed by SRA drivers granted with travel orders
- Proposed Hazard Pay for SRA employees
- Strengthening the enforcement of existing rules on the availment and liquidation of cash advances
- Reassessment of AFD Plans and Programs 2020
- Processing of Drivers Travel Claims
- Disbursements of Php 2.199M for RDE project under COB for Isabela MDDC
- Comments on the response of RDE and Legal Dept on the Audit observations for the MOA on Phenology Project
- Service Continuity And Covid-19 Precautionary Measures Implementation Pursuant To EO No. 112 And CSC MC No. 10 S. 2020
- Travel Order related concern
- Comments - Phenology Project
- Guidelines on the Establishment Of HYV Seed Farms
- Comments on Hiring Board Secretary Position
- Comment on IATF advisory pertaining travel restrictions affecting SRA personnel coming from provinces
- Delegation of Authority on Emergency Procurement
- Guidelines on the Releases of Project Budget
- Progress report on SRA's compliance with DENR requirements for 2019 and proposed Activity Plan for 2020
- Proposed Economy Measures of SRA Under Budget Circular
- MOA on Phenology
- TEV Claims for COS personnel
- Input/comments on the Guidelines on the Adoption, Reporting and Monitoring of Economy Measures in SRA during the Emergency Health Situation
- Process flow on approval of MOA/MOU/contract
- Reassignment of COS personnel to CARSUMCO Mill District Office
- SARAI Project Budget

• Renewal of SRA Visayas COS
• Return to work related concern
• Guidelines on the Proper Turn-over of Cell phone Assignments by Retiring Employees and Procedures for their Re-assignment to Other Employees
• Report assessment/review and recommended courses of action addressed to the Office of the Administrator to improve the implementation process of SRA health and safety measures/protocols to mitigate the effect of Covid19 pandemic in the workplace

B. Anti-Red Tape Unit

- Compliance review on the updating of SRA Citizen's Charter based on the result of evaluation conducted by Anti-Red Tape Authority (ARTA) on SRA submitted on Citizen's Charter Service Guide Handbook.
- Compliance with RA 11302 Otherwise Known as the Ease of Doing Business and Efficient Government Service Delivery Act of 2018.
  - Number of Documents Processed, Revised and Rolled-out: **180 (1st edition and revised edition)**
  - Number of communication (email/memo/updates): **165 transactions completed/accomplished**
  - Compliance Report as Required by ARTA and by the Office of the President
- Attendance to ARTA related trainings (Capacitating Government Instrumentalities on Citizen's Charter)
- Assessed, monitored the compliance and submission of SRA's Citizen's Charter based on the services provided by different SRA department/division and operating units which were classified into simple, complex and highly technical transactions as part of the re-engineering process as required by the Anti-Red Tape Authority (ARTA).
- Information dissemination to different Department and operating units through issuance of memorandum/emails for continual improvement.
- Integration of Internal Services in the SRA Citizens' Charter
- Reviewed and assessed compliance of SRA with the general requirement of ARTA in coordination with ARTU.

IV. COMPLIANCE TO INTERESTED PARTIES' REQUIREMENTS (i.e. GCG, GPPB, COA, DBM,CSC, Internal Compliance)

- ❖ Compliance to 2019 GCG's Performance Scorecard Validation based on SRA Strategic Measure (SM) No. 11
- ❖ Compliance by IAD to the COS renewal/upgrading requirements.
- ❖ Preparation and submission of budget proposal for various project/activities of IAD for 2020 following the PPSPD required budgetary forms, duly approved by the Department Manager. This also includes preparation and submission of Project Procurement Management Plan (PPMP for MOOE/Capital Outlay/CUS) to the Bids & Awards Committee Secretariat.
- ❖ Conduct performance evaluation/assessment of the Department.
- ❖ Compliance to other requirements:
  - Proposed and justified the continued Alternative Work Arrangement (Work-From-Home & Skeletal Workforce) of Internal Audit Department (total: **9 transactions/communications**)
  - Submission of Weekly Accomplishment Report (By Individual **186 reports**; and by Dept.- **31 reports**)
  - 2021 Proposed Budget
  - Indicative PPMP for 2021
  - IAD Annual Accomplishment/ Annual Report for 2019
  - Compliance and submission to various COVID-19 related reports
  - ISSP for 2020/2021
  - Submission to IATF AO25 Approved Modified Form A and A1 related to SRA Citizen's Charter
  - Reviewed and acted on various endorsement forms/ procurement documents/ and other related transactions (Total of **480 transactions** processed and approved)

V. IMPLEMENTATION AND MAINTENANCE OF A QUALITY MANAGEMENT SYSTEM (QMS) ALIGNED WITH ISO 9001 STANDARDS

As the over-all project coordinator/implementing department of SRA Quality Management System, IAD spearheaded the accomplishment of the following activities to ensure the continual implementation and improvement of the Quality Management System within the organization aligned with ISO 9001:2015 Standards:

- **Designation of the following Officers and Employees of the Internal Audit Department :**

  - ⇒ Manager III, IAD as Quality Management Representative (Jan.-Aug. 2020)
  - ⇒ Internal Auditor II as Document Controller
  - ⇒ Four (4) of the Internal Auditors are SRA QMS IQA Auditors
  - ⇒ Internal Auditor III as coordinator and tasked with over-all supervision of the implementation of various QMS-Related Activities

Accomplishments:

- Ensured that the established SRA QMS are maintained and/or implemented; and objectives/goals are monitored, evaluated and measured by all Department Managers and Process Owners for their effectiveness. A total of **339** related transactions processed and acted in 2020.

  1. SRA QMS Manual Revised/Created/Updated aligned with ISO 9001:2015 requirements
  2. Summarized, reviewed and consolidated results of Department Monthly Process Performance Evaluation Report
  3. Submission of SRA QMS Process Performance Report to the Administrator/QMR
  4. IAD compliance to the submission of SRA-QMS Monthly Process Performance Report

- Ensured that documents and records required by the QMS are controlled following the requirement of ISO 9001:2015.
- Process review to ensure manuals /processed controlled document were updated for revisions and approval, earlier/within the required timeframe.
- Coordinated with process owners for all related changes, revision and document updating to ensure compliance with SRA QMS requirements
- nsured compliance and submission of QMS related reports required by GCG/ DBM-PAB/IATF/GQMC-SPIB
- Reviewed and updated SRA Corporate level Risks and Opportunities

- **SRA ISO 9001:2015 1ST Surveillance Audit (Certifying Body Audit)**
  - TUV Rheinland Philippines Inc., conducted the 1st Surveillance Audit on SRA-implemented QMS aligned with ISO 9001:2015 requirements last January 17, 2020. The result of the audit has revealed that SRA is generally compliant to ISO 9001 requirement and passed the CB audit with reported Zero (0) Non-conformities. TUV Rheinland Philippines has recommended the maintenance of the existing ISO 9001 certification of SRA.

- **Consolidated monthly performance reports and Measurement, Monitoring, Evaluation and Analysis (MMAE) Report status of all Process Areas/ Departments**
  Processed, reviewed and consolidated the process performance of each department and interpret the result thereof, for top management review and consideration and for process improvement. Total of **72 MMAE reports reviewed, processed and consolidated**. All consolidated reports submitted to Top Management for their information on the updates and progress of SRA-implemented QMS.

- **Processing of Internal Feedback Survey**
  On top of the 3rd party Client Satisfaction Survey, IAD has established an Internal Feedback Mechanism survey wherein there's periodic submission by operating units of accomplished internal feedback form from their walk-in clients. IAD consolidates, process, reviews, interprets and reports the result of the survey to Top Management for information and process improvement. Reported the 1st and 2nd semester of 2020 Internal Customer Feedback Survey ***(Covering a total number of 581 respondents; with an over-all result of very satisfactory rating)***

❖ **Capacity Building Activities – Fundamentals of Remote Auditing**

In order to update/ increase the awareness and understanding of SRA QMS Core Team on how to carry out the requirements of the ISO 9001:2015 standards towards continual improvement and effectiveness in the SRA QMS implementation, a 2-day online seminar was held last December 16 & 19, 2020 tackling about the audit fundamentals, tools and techniques in the conduct of remote auditing. (Total number of participants: 30)

❖ **Other QMS reviewed activities**

- Reviewed and updated SRA Corporate Risks, Opportunities, and Interested Parties requirements and other internal/external factors that may affect the general operation of the organization
- Certifying Body (CB) Audit Plan and Schedule of Closure of IQA findings
- Meeting / Discussion for Corporate Risks level assessment
- Document access request for uncontrolled Documents/ Manuals for intended for specific purpose
- Reiteration on the updating of program / plans per area/dept.
- Reiteration on submission of feedback forms
- Codified-SRA forms intended for QMS implementation
- Certifying Body (CB) Audit Plan and Delta Checklist
- Attendance and participation to 2020 QMS Management Review Meetings
- Designation of QMS Key Officers
- 1st and 2nd SRA-QMS Internal Quality Audit for 2020
- Final Report On ISO 9001:2015 Re-Certification Audit 2020

VI. TRAININGS ATTENDED (CAPACITY BUILDING AND PERSONNEL DEVELOPMENT)

As a continual learning intervention to increase the knowledge and competence of IAD personnel, the department had attended the following trainings for the year 2020:

Title	Dates	No. of IAD Personnel	Conducted By:
1. Harmonized Gender & Development Guidelines (HDGD) And GenderMainstreaming & Evaluation Framework (GMEF)	February 10-11, 2020	1	SRA Social Hall North Ave., Diliman Quezon City
2. Capacitating Government Instrumentalities On The Citizen's Charter	March 11, 2020	2	ARTA
3. Basic Internal Control Concepts And Internal Auditing Principles And Practices	Sept. 1-4, 2020	1	AGIA
4. Data Privacy Awareness And Compliance Workshop	September 8-10, 2020	1	Yisrael Solutions And Training Center, Inc.
5. Thinking Out-Of-The Box: Embracing Innovative Leadership	October 13-16, 2020	2	Huris
6. Emotional Wellness Mastery Program	Oct. 20, 22, 27 And 29, 2020	1	Innov8.Org
7. Ms Access 2010	November 23-24, 2020	2	Phoenix One
8. Orientation On The Guidelines On The Issuance And/Or Reinstitution Of Permits And Licenses Under The New Normal	December 2, 2020	1	ARTA
9. ARTA Mc No. 2020-07: Guidelines On The Designation Of A Committee On Anti-Red Tape	December 14, 2020	1	ARTA/Office Of The President
10. Fundamentals of Remote Audit Based On Iso 19011:2018	December 16 & 18, 2020	7	Rosehall

SUPPORT SERVICES

LEGAL DEPARTMENT

The Legal Department is headed by Atty. Guillermo C. Tejida, III, in concurrent capacity, being the Deputy Administrator for the Regulation Department. At present, the Legal Department is composed of the following personnel, Atty. Guillermo C. Tejida, III, OIC-Manager III, Atty. Johana S. Jadoc, Attorney V, Atty. Ronald E. Rimando, COS, Legal Officer, Marco D. Soriano, Legal Researcher III, Ma. Gloria G. Ferrer, Secretary II and Neilmar John S. Tulbo, COS personnel.

The Legal Department serves as the consulting body of the Sugar Regulatory Administration (**SRA**) and its employees, on legal matters and issues, either official and/or personal.

The Legal Department is routinarily tasked to draft and review contracts, such as Deed of Absolute Sales, Deed of Donations, Memorandum of Agreement and the likes, executed between SRA, as represented by its Administrator or any authorized signatory, and a representative of the Lessees and other contracting parties. It is also in charge with the notarization of the said documents after signing.

It is the task of the Legal Department to conduct Administrative Investigation on all matters arising from complaints in violation of its issuances, such as sugar orders, memorandum circulars and to conduct investigations to its erring employee.

Cases handled by Legal Department

• **Ramon Monfort vs. Roberto Benedicto, et. al.** Pending before the Regional Trial Court of Manila, Branch 23.	• **CABI and CASA vs. SRA, Civil Case No. R-MKT-18-03871-SC** of Branch 133,Regional Trial Court-Makati (pending)
• **CONFED vs. Rodolfo Gamboa** Pending before the Regional Trial Court of Quezon City, Branch 226.	• **CABI and CASA vs. SRA, Civil Case No. R-MKT-19-00521-CV** of Branch 135,Regional Trial Court-Makati for Indirect Contempt (pending)
• **Central Azucarera de Bais vs. SRA** Pending before of the Regional Trial Court of Makati, Branch 146.	• **CABI and CASA vs. SRA, Civil Case No. R-MKT-17-00923-SC** Of Branch 59, Regional Trial Court-Makati (Pending)
• **SRA vs. Mabitasan** Pending before Quezon City Regional Trial Court Branch 81	• **CABI and CASA vs. SRA, Civil Case No. R-MKT-18-020313-CV** Of Branch 137, Regional Trial Court-Makati (Pending)
• **People of the Philippines vs. Emanuel Subia, Crim. Case No. 08-260578** Pending before RTC of Manila, Branch 21.	• **CABI and CASA vs. SRA, Civil Case No. R-MKT-20-02164-CV** Of Branch 235, Regional Trial Court-Makati (Pending)
• **CABI and CASA vs. SRA, Civil Case No. R-MKT-18-02013** of Branch 142 (*then* 132),Regional Trial Court-Makati now pending at the Court of Appeals in CA G.R. SP Nos. 161974 & 162614	

SUPPORT SERVICES

PLANNING, POLICY & SPECIAL PROJECTS DEPARTMENT

Activities undertaken from January to December 2020:

I. Projects & Programs Evaluated under the Special Projects, Project Development, Evaluation & Monitoring Division

	January	February	March
COB	• DRRM Proposal for Assistance to Balayan and Don Pedro MDs as response to the Taal Volcano Eruption • Soil Rejuvenation Practices and Fert. Mgt. of Sugarcane Farmers in the Phils. & their level of productivity	• Seed Farm Proposal-Davao MDDC (20 has)	• Seed Farm Proposal – Linandangan SBFA (2 has) • Seed Farm Proposal – Nabundasan (2 has) • Evaluation on the proposal of DOLE RTWPB VI entitled: Conduct of a Study to Standardize Pakyaw Rates in the Sugarcane Industry in Region VI
SIDA	HYV Nursery proposals of • Samahang Magtutubo ng Pooc Ibaba (2has) • Samahang Magtutubo ng Pooc Ilaya (2has) • Samahang Magtutubo ng Calan (2has) • Samahang Magtutubo ng Putol (2has) • Samahang Magtutubo ng Tanggoy (2has) • Proposed FMR from Brgy. Manual, Kiblawan, Davao del Sur	HYV nursery proposals of • Minsarilac FLA (2has) • Lumintao FMPC (2 has) • Evaluation of the loan proposal of Cotabato MDDC as Service provider	• Evaluation of loan proposal of Solid Planters Diversified Association Inc. as Service Provider
	April	**May**	**June**
COB	1. Proposal for the provision of Pump Irrigation (STW) and in open source 1. Marbel Sugarcane Planters Association 2. Linandangan Sugarcane Block Farmers Association 2. Request of UPLB for Realignment of Capital Outlay for the renewal of AspenOne software for the Project "Socio-economic and Environmental Impacts of Sugar Production in the Philippines"		Evaluation on the progress report of UPLB's BRDE lien-funded project "Socio-economic and Environmental Impacts of Bioethanol Production Phase II)
SIDA	Request for Fund Release 1. Request of UPLB for Fund Release for the Project "Emerging and Re-emerging Diseases of Sugarcane" 2. Request of UPLB for Fund Release for the Project "Post-entry Quarantine and Disease Indexing of Introduced Sugarcane Varieties" 3. Request of UPLB for Fund Release for the Project "Assessment of Sugarcane Varieties and Germplasm Collection for Drought and Water-logging Tolerance	Evaluation on the request for fund release of UPLB on the project "Emerging and Re-emerging Diseases of Sugarcane"	1. Evaluation of the Proposal of Batangas Integrated Sugarcane Planters Multi-purpose Cooperative for the "Rapid Propagation and Distribution of HYVs Program". 2. Evaluation on the request for extension for the project "Upgrading of the Environmental Research & Services Laboratory of ISU-Cabagan Campus". 3. Evaluation on the request for fund release for UPLB's SIDA-RDE project "Post-entry Quarantine and Disease Indexing of Introduced Varieties of Sugarcane".

	July	August	September
COB		Evaluation on the request to charge COVID-19 related expenses for the projects "Socio-economic and Environmental Impacts of Bioethanol Production Phase II" and "Socio-economic and Environmental Impacts of Sugar Production in the Philippines".	1. Evaluation on the compliance to the previous evaluation for the request for fund release for the project "Assessment of Sugarcane Varieties and Germplasm for Drought and Water-logging Tolerance" 2. Evaluation on the request for fund release for the project, "Sugarcane Varietal Improvement to Develop High-Yielding and Climate Change Resilient Varieties" 3. Evaluation on the request for fund release for the project "Assessment of Sugarcane Varieties and Germplasm for Drought and Water-logging Tolerance"
SIDA	Evaluation of the Proposal of Sagay Mill District Development Council, Inc. for the "Rapid Propagation and Distribution of HYVs Program"		
	October	**November**	**December**
COB	1. Evaluation on the request for extension and realignment of budget for the project "Socio-economic and Environmental Impacts of Bioethanol Production Phase II" 2. Evaluation on the request for extension and realignment of budget for the project "Socio-economic and Environmental Impacts of Sugar Production in the Philippines" 3. Evaluation on the proposal of Mariano Marcos State University entitled "Facility and System Improvement thru Development of a Fermentation and Steam Heated Reflux Distillation Trials in Support to MMSU Bioethanol Research and Production"	1. Evaluation on the Proposal of MMSU for BRDE funding entitled "Facility and System Improvement thru Development of a Fermentation Equipment and Steam-heated Reflux Distillation Trials in Support to MMSU Biofuel Research and Production" 2. Evaluation on the 2nd progress report for the project "Socio-economic and Environmental Impacts of Bioethanol Production (Phase II)" 3. Evaluation on the 2nd progress report for the project "Socio-economic and Environmental Impacts of Sugar Production in the Philippines"	Evaluation of the proposals of the following proponents for the Japan NPGA 1. NOSMAC 2. NOPA 3. San Julio ARB Association 4. Solid Planters Diversified Assoc, Inc. 5. First Farmers Association 6. BIPA 7. UNIFARM MPC 8. Maguinapas FA 9. Iloilo MDDC 10. BMAKBC 11. PAAC 12. ACUBARCO 13. Ormoc-Kananga MDDCFI
SIDA	1. Evaluation on the Request for realignment on the project "Water and Nutrient Management of SRA-initiated Block Farms" 2. Evaluation on the Request for fund release on the project "National Cooperative Testing of Sugarcane Varieties Prior to Commercialization"	1. Evaluation on the Request for Extension and Realignment on the project "Effects of HFCS and Sucrose on the Body Weight, Body Fat and Triglyceride Levels on Rats". 2. Evaluation on the Request for Fund Release on the project "National Cooperative Testing of Sugarcane Prior to Commercialization"	

Farm-to-Mill Road Projects under 2020 SIDA Fund Evaluated					
	REGION	**DISTRICT**	**MILL DISTRICT**	**PROVINCE**	**FARM-TO-MILL ROAD LOCATION**
1	II	3rd	Carsumco	Cagayan	Brgy. Palca Road to Brgy. Lakambini, Tuao
2	II	6th	Isabela	Isabela	Brgy. Babaran, to Brgy. Buselelao and Sta. Cruz, Echague, Isabela, Echague
3	III	2nd	Tarlac	Tarlac	Brgy. Bantog, Tarlac City
4		3rd			Culatingan Road to Magao Road, Concepcion
5	III	2nd	Pampanga	Pampanga	Brgy. Sepung Bulaon to Brgy. Palat, Porac
6	IV-A	1st	Don Pedro	Batangas	Brgy. San Jose to Brgy. Dao to Brgy. Putol, Tuy
7	IV-A	4th	Balayan	Batangas	Brgy. Pangao, Ibaan
8					Brgy. Dayapan Road, ibaan*
9	V	3rd	Pensumil	Camarines Sur	Zone 7, Brgy. Binanuaanan, Pili
10	VI	3rd	Iloilo	Iloilo	Brgy. Dalid to Brgy. Simsiman , Brgy. Gama Grande to Brgy. Jamin-ay Road, Calinog, Iloilo
11	VI	1st	Capiz	Capiz	Sitio Esperanza, Brgy. Binuntucan to Brgy. Cabungahan Road, Pontevedra
12	VI	3rd	HPCo	Negros Occidental	Brgy. San Isidro- Brgy. Canlusong, EB Magalona
13		3rd			So. Binolwangan- So. Patag Duitay, Brgy. Guimbala-on, Silay
14					Crossing Luguay, Brgy. Hawaiian, Silay City
15	VI	3rd	FF/Bac-Mur	Negros Occidental	Sta. Teresita, Brgy. Dos Hermanas to Hiyang-hiyang, Brgy. Katilingban, Talisay City
16	VI	5th	BISCOM	Negros Occidental	Crossing Sambag to Bonton, Brgy. Carabalan, Himamaylan
17		5th			Crossing Renante to Had. Maria Elena, Brgy. Buenavista, Himamaylan
18	VI	5th	BISCOM	Negros Occidental	Brgy. Aranda to Candumarao/ Camalobalo/ Calapi, Hinigaran
19		5th			Poblacion 5, Highway to Hacienda Nalipay, Isabela
20	VI	4th	La Carlota	Negros Occidental	Brgy. Cambarus to Casal-agan viejo, Pontevedra
21	VI	2nd	Lopez	Negros Occidental	Brgy. Poblacion 1 Proper to Brgy. Luna, Sagay City Road Section, Sagay City
22		2nd			Banga Yungho, Brgy. Poblacion I to Had. Star, Brgy. Taba-ao, Sagay City
23	VI	1st	Sagay-Danao	Negros Occidental	Sitio Alamay Junction to Brgy. Tabun-ac Proper, Toboso Road Section, Toboso
24					Crossing Sitio Polopangyan Brgy. Bug-ang to Sitio Pasto Brgy. Magticol, Toboso Road Section
25		2nd			Crossing Linasgasan, Brgy. Bato to Sitio Hololayon, Brgy. Malubon, Sagay City
26	VI	1st	San Carlos	Negros Occidental	Crossing Igmamatay to Sitio Igmamatay, Brgy. Codcod, San Carlos City
27	VI	6th	Sonedco-Dacongcogon	Negros Occidental	From Brgy. Pinggot Proper to Sitio Montello, Brgy. Pinggot, Ilog
28	VI	3rd	Victorias	Negros Occidental	National Road to Brgy. XVIII-A, Had. Florencia Road, Victorias City
29	VII	2nd	Bais-Ursumco	Negros Oriental	Brgy. Sta. Agueda - So. Naga, Brgy. Sta. Agueda, Pamplona, Negros Oriental
30	VII	3rd	Tolong	Negros Oriental	Sitio Nabagang, Poblacion to Sitio Avocado, Brgy. Talalac, Sta. Catalina

31	VII	4th	Bogo-Medellin	Cebu	Junction National Highway- Brgy. Caputatan Norte to Brgy. Dalingding Sur to Junction Mainline National Highway- Brgy. Panugnawan, Medellin
32	VIII	4th	Ormoc	Leyte	Brgy. Can-untog to Brgy. Quezon Jr. Road, Ormoc City
33	VIII	4th	Ormoc	Leyte	Purok 4, Brgy. Juaton to Sitio Guin-owanan, Brgy. Dolores Road, Ormoc City
34	X	3rd	Bukidnon	Bukidnon	P-1 Crossing Montalban to P-17 OADI, San Jose, Quezon, Bukidnon
35		3rd			Calao-calao, Don Carlos - Bershiba, Kitaotao, Don Carlos
36	XI	Lone District	Davao	Davao del Sur	Brgy. San Jose, Matanao
37	XII	3rd	Cotabato	North Cotabato	Brgy. Calunasan to Brgy. Ugpay Road, M'lang

II. Reports Submitted to GCG

a. Year 2020
   1. Quarterly Monitoring Report (PES Form 4)
   2. Proposed Scorecard for 2020
      a. Updated Charter Statement & Strategy Map (PES Form 1)
      b. Proposed Performance Scorecard (PES Form 1)
      c. Measure Profile (PES Form 2b)
      d. Strategic Initiative Profile (PES Form 3)

III. Reports Submitted to Department of Agriculture (DA)

a. Agency Performance Report – First to Fourth Quarter 2020
b. Quarterly Report on Area, Cane & Raw Sugar Production per Region as inputs to the Philippine Development Plan (PDP) 2017 – 2022
c. Budget Briefing Folio
d. Rehabilitation and Recovery Support of M & E Report for DA-YRRP Projects

IV. Reports Submitted to Various Government Agencies 2020

a. Budget Briefing Folio – Senate, Congress, DBM
b. DBM Form 700 (Narrative)
c. Tier 1 & Tier 2 Proposal – DBM
d. 2018 Annual Report of Accomplishments

V. Reports Submitted to Philippine Statistics Authority (PSA)

a. Bi-weekly report on Sugar Price Monitoring (wholesale & retail prices of raw, washed & refined sugar in Metro Manila sourced from LMD, Regulation Department)
b. Quarterly Report on Cane Milled, Raw Sugar Produced and Millsite Prices of Raw Sugar
c. Quarterly Report on Raw Sugar Inventory (Raw Sugar Production, Domestic Withdrawals, Sugar Balance & Raw Sugar and Molasses Millsite Prices) as inputs to the National Accounts of the Philippines (NAP)

VI. Quality Management System submissions as compliance the following:

- Twelve (12) Monthly Process Performance Reports for 2020
- Bi-Annual: List of Records, External Document List and Client Feedback Report 2020
- Participated: Conduct of QMS Internal Quality Audit

VII. Management Information Systems, Planning and Programming Division - QC

- **Conduct of Preventive Maintenance**

For 2020, **172** ICT facilities (desktops) underwent preventive maintenance by the Management Information Systems (MIS) Section of the Planning, Policy & Special Projects Department (PPSPD).

The quarterly conduct of preventive maintenance was conducted in the following offices:

Department	No. of ICT facilities maintained	Quarter conducted
Administrator's Office	42	First
Administrative and Finance Office	51	Second
Regulation Office	56	Third
Research, Development and Extension Office	23	Fourth

Desktops detected to have bugs/virus' was immediately resolved and preventive maintenance for software and hardware were 100% attained.

- **Website Hits**

Website visits recorded from January 1 to December 31, 2020 was **626,592.** SRA's website content is frequently updated to give its clients, researchers and stakeholders the latest news about the sugarcane industry and an up-to-date industry data and other relevant information.

	Q1	Q2	Q3	Q4	Total
Website Hits	135,510	148,698	197,224	145,160	**232,896**

- **Webpages Uploaded/Updated**

The webpages uploaded and updated are in compliance to the Governance Commission on GOCCs (GCG) requirements. The pertinent data and reports uploaded and updated are found in the Transparency Seal of the SRA website which is manned by the Management Information Systems Section of the Planning, Policy and Special Projects Department. For 2020, webpages uploaded/updated were **1,841.**

Webpages	Q1	Q2	Q3	Q4	Total
Uploaded	372	617	246	606	**1,841**

SPECIAL PROJECTS

1. **Review and Updating of DA AO No. 26**

The Sugar Regulatory Administration has implemented a BRDE-funded project entitled "Review and Updating of DA AO No. 26 (Guidelines on the Procedures and Technical Requirements for the Issuance of Certification Allowing the Safe Re-use of Wastewater for Purposes of Irrigation and Other Agricultural Uses) for Wastewater Re-use of Sugar Industry-based Effluents" thru the Bureau of Soils and Water Management beginning January 2019 up to June 2020. The disbursement of project's fund was managed by the SRA

The Technical Working Group of this project has conducted a nationwide consultations for the revision of the existing guidelines (Administrative Order No. 26) held in Luzon, Visayas and Mindanao. The final draft of the guidelines was presented in the national consultation-workshop held in Cebu. The consultations were participated by stakeholders from the sugarmills, refineries, bioethanol distilleries, state universities and colleges and other concerned government and private agencies.

The final output of the project is DA Administrative Order No. Series of 2019 or the Revised Guidelines on the Procedures and Technical Requirements for the Issuance of a Certification Allowing the Safe Re-Use of Wastewater for Purposes of Irrigation and Other Agricultural Uses, Pursuant to Section 22.C of R.A. 9275 Otherwise Known as the Philippine Clean Water Act of 2004.

The SRA has coordinated with the National Printing Office for the publication of the said Administrative Order in the Official Gazette issued in April 2020. A total of 2,000 copies of DA-AO No. 11 were printed and distributed to the concerned stakeholders thru the BSWM.

2. **Approval of the Japan Non-Project Grant Aid (NPGA) entitled "Farm Mechanization Program for Small Sugarcane Landholders thru the Japan-Philippines Economic Partnership Agreement (JPEPA).** The SRA has proposed the said project to Department of Agriculture thru its Project Development Service which is a

compensation for the postponement of the market access of the Philippine sugar to Japan during the Japan-Philippines Economic Partnership Agreement (JPEPA) forged in 2007.

On June 2020 the Project-Grant-Agreement was finally signed after years of negotiations, with Japan committing a total amount of 800 million Yen for the procurement of farm machineries (tractors, harrows, mechanical planters and mulchers) for the small sugarcane landholders. An online virtual public consultation was held on September 4, 2020, to discuss the implementing guidelines of NPGA with the industry's stakeholders. SRA issued Memorandum Circular No. 14, Series of 2020, entitled *"Implementing Guidelines of the Japan Non-Project Grant Aid to SRA on Economic and Social Development Programme",*

3. **Analysis of the Supply/Value Chain of Sugarcane in Selected Mill Districts in Negros Occidental.** The ASEAN+3 Food Security Information System (AFSIS) has granted the Sugar Regulatory Administration (SRA) a total amount of Php2.4M for the implementation of the study on the Supply Value Chain of selected Mill Districts in Negros Occidental.

   SRA has implemented the project in First Farmers and San Carlos mill districts, both in Negros Occidental. The project was completed in January 2020. The final report was submitted to AFSIS in March 25, 2020.

4. **Pilot Testing on the Bulk Production and Dehydration of Nipa Hydrous Ethanol as New Feedstock for Anhydrous Bioethanol Fuel.** The project was implemented by Mariano Marcos State University in Ilocos Norte. It was funded by the BRDE liens being collected by SRA from bioethanol producers. The objective of the project is to conduct pilot test runs of hydrous bioethanol using nipa sap as feedstock to anhydrous bioethanol and evaluate the commercial viability of a village-scale bioethanol industry in partnership with EPAP. The result of the project was dehydration of 3,600 liters of hydrous, 92.5% purity, ethanol at Far East Alcohol Corporation in Pampanga. Yield was 3,500 liters of anhydrous bioethanol fuel at 99.73% purity. The terminal report of the project was submitted to SRA on March 2020.

DISASTER RISK REDUCTION AND MANAGEMENT

The Sugar Regulatory Administration was able to extend post disaster assistance (Typhoon Ompong) to Isabela mill district in Region 2 by providing heavy equipment such as 2 units dumptrucks and 4 units grabber/loaders, with a total cost of P20,660,012.80. These, heavy equipment were received by the recipients last August 2020.

RA 11469 - BAYANIHAN TO HEAL AS ONE ACT

The SRA as one of the frontliners in ensuring food security, specific for sugar, of the country has issued pertinent policies to all stakeholders and LGUs nationwide to ensure the continuous movement of the sugar, sugarcane and by-products, production inputs, farm workers and laborers, employees, and to ensure the practice of social distancing. Among the pertinent issuances for this purpose were:

- Memorandum Circular No. 3, dated March 20, 2020, issued to all LGUs to facilitate the movement of sugar, sugarcane and its by products and delivery of essential inputs for sugar manufacturing.

- Circular Letter No. 17, dated March 20, 2020, issued to all stakeholders of the industry about the unrestricted and unhampered movement of food supply and transit of personnel and cargo of business establishments allowed to operate during ECQ. The said CL contained related issuances from different government agencies such as IATF, DILG, DTI, DA and DOLE.

- Circular Letter No. 44 Series of 2020, dated August 18, 2020 issued to encourage sugar, molasses, fructose, muscovado traders/ CBW/food processors/ manufacturers/exporters/sugar mills/ refineries/premix commodity importers/ bioethanol manufacturers/producers and other concerned stakeholders to practice the online application and payment of all fees/charges.
- Special Order No. 49 dated March 18, 2020, Series of 2020 – issued to selected SRA personnel creating the COVID 19 Resiliency Task Force Support Team in the SRA.

- Memorandum Circular No. 4, dated March 25, 2020, Series of 2020 – issued to all sugarmills, refiners, ethanol distillers, sugarcane planters associations, block farms and MDDCs to submit complete list of personnel employed by the sugarcane sector. The purpose is to identify the vulnerable sector in the industry during the COVID 19 crisis.

RA 11494 - BAYANIHAN TO RECOVER AS ONE ACT

Cash and Food Subsidy for Marginal Farmers and Fisherfolks (CFSMFF). The CFSMFF aims to provide direct food and financial assistance in the amount of five thousand pesos (P5,000.00) to eligible RSBSA-registered beneficiaries from different sectors in agriculture and fisheries. An amount of P3,000.00 shall be given as cash, while P2,000.00 worth of rice and chicken/eggs shall be provided to the beneficiaries. This project is under the Stimulus Package of the Department for Agriculture.

The SRA has given an allocation of P150 million to assist 29,702 small farmers. As such,a selection criteria for eligible farmers-beneficiaries was formulated and submitted to the DA.

On November 23, 2020, SRA was able to facilitate the attendance of 207 farmers-beneficiaries from Batangas during the launching of the program held at Tayabas, Quezon.

EASE OF DOING BUSINESS- ANTI RED TAPE

The SRA has complied with RA 11302 Otherwise Known as the Ease of Doing Business and Efficient Government Service Delivery Act of 2018. As such, the SRA has completed the updated/revised version of its Citizen's Charter based on the result of evaluation conducted by Anti-Red Tape Authority (ARTA) on SRA's Handbook on Citizen's Charter.

CORPORATE SOCIAL RESPONSIBILITY

1. **SRA CSR Luzon/Mindanao Committee and SUGAREAP Relief Operations for Taal Eruption Victims. T**he Sugar Regulatory Administration's Corporate Social Responsibility (SRA CSR) Luzon/Mindanao Committee, together with the Sugar Regulatory Administration Employees Association of the Philippines, Inc. (SUGAREAP), held relief operations for the victims of Taal volcano eruption on January 22, 2020.

   The SRA volunteers went to different evacuation centers like the National High School, Brgy. Concepcion Barangay Hall and Alitagtag College to distribute bottled water, packed goods, face towels, blankets, medicine supplies, rechargeable flashlights as well as hygiene kits that include bath soap, alcohol, shampoo, toothbrush, and toothpaste.

2. **SRA's Relief Assistance to the Victims of Earthquake in Cotabato Mill District**. The SRA, in coordination with Cotabato Mill District Development Council, has distributed food packs and medicines to 489 beneficiaries which were mostly affected families and dependents of sugarcane farmers in barangays of Tulunan, New Culasi and Ugpay in the town of M'lang, North Cotabato.

3. **Emergency First Aid Awareness Seminar**. In February 14, 2020, through the efforts of SRA CSR Visayas Committee, an Emergency First Aid Seminar to SRA employees was conducted. The goal of this activity is to encourage healthy and safe living by boosting a person's confidence and abilities to apply the learned skills in relation to proper first aid administration in order to reduce and/or prevent a patient's risk of developing a debilitating condition.

4. **Adopt-A-School Program.** In 2020, even with the presence of the COVID-19 pandemic, the SRA CSR Visayas has spearheaded the distribution of school supplies (bags, pencils, pads of paper, notebooks, crayons, etc.) to 500 identified sugarcane worker's children in Amayco Elementary School and Abuanan Elementary School, Bago City, Negros Occidental.

GENDER AND DEVELOPMENT

PRODUCTIVE despite the odds. This is one apt term to describe SRA-GAD in 2020. Everyone knows that the Covid-19 pandemic struck and it sure hampered many scheduled projects and programs. Nevertheless, the committee was able to make valuable accomplishments. In spite of the limits brought about by the pandemic, SRA-GAD still came up with meaningful projects which proved to be beneficial in those hard times. The TWG members' hard work, drive, innovativeness, creativity and inspiration are the key factors why they were able to implement said projects successfully. Committed and results-oriented, the Technical Working Group once again proved their competence and reliability.

The following feat, were accomplished in 2020:

1. **Deep Discussions and Light Moments.** The SRA GAD held its maiden activity for the year with a seminar workshop on the Harmonized Gender and Development Guidelines (HGDG and Gender Mainstreaming and Evaluation Framework) held at the SRA Social Hall on February 10-11, 2020.

   The resource speaker tapped for the two-day activity was Mr. James Arsenio Ponce, CES Eligible-OIC Director III (SCS). In attendance was SRA GAD Chairperson Atty. Roland Beltran who delivered the Opening Remarks. TWG Members and project focal persons of both QC and Visayas participated in the workshop proper contributing to its resounding success.

2. **National Women's Month Photo Booth.** SRA joined in the celebration of the National Women's Month held every March. This year's theme was a continuation of last year which is "We Make Change Work for Women." As a kick-off activity which occurred on the first Monday of March, a photo booth was put up where SRA employees happily posed with the tarp and background depicting the theme.

3. **National Women's Month Forum with Ms. Giselle Cruz**. As part of this year's celebration of the National Women's Month, the SRA-GAD GFPS tapped the services of Ms. Giselle Cruz, Gender Inclusive and Participatory Media Consultant as resource person in a forum titled "*Celebrating Women Stories Who Make Change"* on March 9, 2020 at the SRA Social Hall. The said forum highlighted and honored the Filipino women who made history for their significant and inspiring contributions to the country.

4. **Protecting One's Self Means Protecting Others As Well**. While observing the health protocols and considering the over-all welfare and wellness of the SRA community, the 2020 GAD Plan and Budget (GPB) was revised. This time, adding the provision of health essentials and 25 kilos of rice in sacks for everybody as a means of support during the pandemic times. Seeing the project's intrinsic value and benefit, the Philippine Commission on Women (PCW) considered the justification of the GAD Committee and re-approved the adjusted GPB which is COVID-responsive.

5. **SRA GAD Corner.** The Gender and Development Committee of the Sugar Regulatory Administration had been consistently active in maintaining the GAD Corner. Month after month, different activities, announcements, information and gender-related matters and celebrations get featured for the awareness and information of the entire agency.

   This year, the GAD Corner became witness to some important events and

happenings both in the intramural and extramural levels. More importantly, it became a tool for information dissemination about Covid-19 which was beneficial for each employee. Every month, the GAD Corner also has inspiring themes which not only reminded everybody to always be on the alert but also to remain optimistic despite these challenging and trying times.

6. **One Sack of Rice for All**. As part of the SRA-GAD's Covid 19-responsive 2020 GAD Plan and Budget endorsed by the Philippine Commission on Women (PCW), sacks of rice in twenty-five (25) kilos each for all SRA employees including Janitorial Services Staff and Security Personnel were distributed on September 8, 2020. This is indeed a huge help in these difficult times when the pandemic has greatly affected everybody.

   This was followed by the distribution of Vitamins and other health essentials on December 18, 2020.

7. ***"PPEskong Handog ng* SRA-GAD".** On December 16, 2020, the SRA-GAD Committee distributed health essential kits to all agency employees as part of the on-going drive against Covid 19. Dubbed as *"PPEskong Handog ng* SRA-GAD", the Technical Working Group (TWG) led the distribution of the kits to the delight of the recipients in each department. The kit contains various health products like face masks, face shields, vitamins, hand soap, hand sanitizer and alcohol.

   The SRA-GAD is very much elated with the turn-out of one of its important projects for the year. The TWG also raffled off sacks of rice to five (5) lucky personnel as drawn by Administrator Hermenegildo R. Serafica.