



UPLB, DA-BAR stage int'l bee conference

Scientists, researchers, beekeepers, and students from various countries such as Philippines, Japan, Singapore, Australia, Indonesia, Brazil, France, Vietnam, Nepal, Taiwan, and Malaysia convened in the country for the International Meliponine Conference and Asian Apicultural Association (AAA) Philippines Symposium on Pollinator Conservation to showcase and share recent studies on stingless bees on 25-28 February 2020 at the University of the Philippines Los Baños (UPLB).

With the theme “Stingless Bee: Cinderella No More,” the activity was organized by the AAA through the UPLB Bee Program, in collaboration with the Department of Agriculture-Bureau of Agricultural Research (DA-BAR).

Dr. Fernando Sanchez, Jr., UPLB chancellor, in his welcoming message, encouraged the national

and international apiculture community to utilize the conference cum symposium “as an avenue for cultivating linkages with fellow scholars, researchers, and stakeholders.”

This was furthered by Dr. Cleofas Cervancia, AAA Philippines and Apimondia Regional Commission for Asia president, who, in her opening remarks, said that the AAA Philippine Chapter “was instituted to promote bee research, development, and extension (Bee RDE) in the country through mentoring students and other researchers in conducting relevant studies on bees and pollination. It also endeavours to forge collaboration with other Asian nations on bee research and training.”

On behalf of Dr. Nicomedes Eleazar, DA assistant secretary for special affairs and DA-BAR director, Digna Sandoval, DA-BAR

assistant director and Institutional Development Division head, said that “apiculture never failed to be one of the frontrunners in the research for development (R4D) community and be an avenue for the enhancement of agricultural sustainability.”

Meanwhile, more than 70 scientific papers on completed and ongoing studies on genetic diversity, apitherapy, beekeeping development and extension, beekeeping technology and quality, health, biology, ecology, behavior, and pollination and flora of stingless bees conducted by members of the national and international apiculture community were presented during the conference cum symposium. Included in these paper presentations was the paper competition among students from seven science high schools and universities in Luzon.

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AAA Philippines and Apimondia Regional Commission for Asia President Cervancia (center) and DA-BAR Assistant Director and IDD Head Sandoval (4th from right) lead the ribbon-cutting ceremony for the opening of the exhibit. PHOTO: CFRANCISCO

DA chief declares bamboo as high-value crop; intensified R&D support eyed

Pursuant to the intensified promotion of the bamboo industry, Agriculture Secretary William Dar made a policy pronouncement declaring bamboo as a high-value crop on 6 February 2020 in a meeting with the Philippine Bamboo Industry Development Council (PBIDC) at the Department of Agriculture (DA).

“We need to bring together efforts in sustaining and making the environment resilient, while at the same time enhancing the economic activities of the sector,” Dar said.

The DA chief mentioned that, with bamboo now considered as a high-value commodity, DA can undertake various interventions including research and development (R&D) support.

“Starting this year, we will have some activities lined up to support the

advancement of the bamboo industry,” Dar added.

Secretary Dar said the DA’s new agri-industrial strategy under the “new thinking for agriculture” looks not only at enhancing farm productivity, but also at developing more value-added products so that farmers and their families are provided with more business and employment opportunities, and thus more income.

“We need to tap the power of technology to mass propagate bamboo. We need to look at opportunities in providing funding support for bamboo tissue culture to address the lack of planting materials needed to rejuvenate the country’s bamboo industry,” Dar said.

He also cited the importance of inviting more Filipino and foreign investors to set up tissue culture

facilities and engage in bamboo production and processing.

“Let’s not concentrate on doing it within the government only. If there is a business opportunity, and tissue culture could be one business opportunity for bamboo, then let’s pursue this,” he said.

Dar added that the new strategy is to bring in the private sector and partner with communities and farmers’ groups so that we can elevate the business and income opportunities for the Philippine bamboo industry.

Also present during the meeting were Department of Trade and Industry Secretary and PBIDC Chair Ramon Lopez, and PBIDC Vice-chair and House Deputy Speaker Ilocos Sur Representative Deogracias Victor Savellano. ### (Rita T. dela Cruz, DA-OSEC)



DA-BAR PRESENTED ABI PROGRAM TO DA MANCOM MEETING. Dr. Nicomedes P. Eleazar, DA assistant secretary for special affairs and DA-BAR director, presents the DA-ABI Program to the members of the DA management committee composed of the executive committee and heads of staff bureaus and attached agencies during the 1st Quarter Management Committee Meeting of CY 2020 on 27 February 2020 in Laoag, Ilocos Norte. The meeting is conducted to review the accomplishments for 2019 and to ensure that plans for the national level of the agriculture and fisheries sector are anchored on the DA’s “New Thinking” paradigm and vision. Updates and plans of action with regard to various department- and national-level concerns such as African swine fever and low *palay* prices, along with programs to empower farmers, fishers, youth, and other identified partner groups through agribusiness ventures, were also discussed. TEXT AND PHOTO: CMABAO

DA launches landmark agribusiness incubation program

Anchoring on Agriculture Secretary William Dar's New Thinking for agriculture paradigm focusing on inclusive, market-oriented development, the Department of Agriculture (DA) launched the DA Agribusiness Incubation (ABI) Program.

With the tagline "Strengthening Incubators, Accelerating Incubatees' Growth," the DA-ABI program aims to equip and strengthen both the incubators or start-up enablers such as universities and research-based institutions; and potential incubatees or agripreneurs which include the youth, farmers, fishers, and other organized groups.

The program is one of DA's initiatives under the Php 10-billion supplemental budget provided for 2020 for a more effective and efficient commercialization of research-based technologies, continued development of agriculture and fisheries technology-based start-ups and existing enterprises, and higher likelihood of incubatee successes.

Together with Sec. Dar's instruction to empower both research-based institutions and the farmers and youth, the DA-Bureau of Agricultural Research (BAR), DA-Agricultural Training Institute (ATI), DA-Agricultural and Marketing Assistance Service (AMAS), and DA-Agricultural Credit Policy Council (ACPC) collaborated to craft the program components namely, Agricultural Research and Commercialization, Technology Transfer, and Agribusiness Value Chain/Sector Development.

The first component, Agricultural Research and Commercialization, termed by DA-BAR as the Technology Business Incubation (TBI) Program, focuses on building

a dynamic learning and nurturing entrepreneurial ecosystem through incubator and incubatee development.

To kick start the program's implementation, DA-BAR conducted the TBI Program Orientation cum Proposal Writeshop on 17-18 February 2020 in Los Baños, Laguna.

Dr. Nicomedes Eleazar, DA assistant secretary for special affairs and DA-BAR director, led the activity participated in by 11 state universities and colleges, three DA operating units, and three DA regional field offices.

"We are in dire desire to further upscale the sector through providing support to our farmers and fishers to 'agribusinessize.' Hence, we conduct this activity to ensure that our set program objectives are met as we look through the same lens towards the implementation, monitoring, and evaluation of the DA-ABI and DA-BAR TBI Program," said Asec. Eleazar.

The outputs of the activity were concept notes on how the respective agencies will implement their TBI projects based on their identified incubation services needed.

Apart from the orientation cum proposal writeshop, the DA-ABI Program was also introduced through site assessment visits to prospective incubators such as Benguet State University, Mariano Marcos State University, and DA Regional Field Office-Cordillera Administrative Region on January and February 2020.

For its first year of implementation, the TBI Program targets to support 15 incubators which will train 10 incubatees each. For the succeeding support for the identified beneficiaries, DA-ATI will target the youth sector; DA-AMAS will provide

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UPLB, DA-BAR...from page 1

Landing at 1st place for the Best Student Paper Award was the study titled "Anti-nociceptive Activity of Philippine Stingless Bee (*Tetragonula biroi Friese*) Propolis Against Cutaneous, Visceral and Somatic Pain Involving Central and Peripheral Pain Pathways" by students from the College of Veterinary Medicine of UPLB.

The recipient of the 2nd place for the Best Student Paper competition was the research paper titled "Pre-emptive Analgesic Activity of Stingless Bee (*Tetragonula biroi Friese*) Honey Alleviates Inflammatory Somatic Pain but Not Cutaneous and Visceral Pain in ICR Mice" by students from the College of Veterinary Medicine of UPLB as well.

Featured also in the event was the search for "Best Honey," which Enard's Bee Farm located in Gumaca, Quezon, won.

The conference cum symposium culminated in a technical tour, roundtable discussion, and closing ceremony at the Kota Paradiso in Mabitac, Laguna. Highlights of the activity included discussions on stingless bee colonies, hive design, seasonal management of stingless bee colonies, utilization of stingless bees for pollination, and bee pasture development.

A video primer which highlighted a demonstration of a standard hive of UPLB was also shown to the participants.

"There is a possibility that the stingless bees will be the 'bees of the future.' Its honey is good for diabetes actually; therefore, we need to develop something good out of it," said Anna Locsin, a UPLB beekeeping expert.

For more than ten years now, DA-BAR has been supporting R4D projects and initiatives on apiculture under bureau's the National Technology Commercialization Program. ###
(Jireh Alodia R. Laxamana)

DA-PhilRice, DepEd engage youth in agri t

Story by Ren

There is a global consensus that young people are leaving agricultural communities for more lucrative opportunities in urban areas. The Philippines is among the countries that are greatly affected by this global phenomenon.

With this, the Department of Agriculture (DA) has intensified its effort to encourage the youth to venture into agriculture through scholarship and agripreneurship loan programs.

In his research on youth and agriculture, Jaime A. Manalo IV, supervising science research specialist at the DA-Philippine Rice Research Institute (PhilRice), said that “the desire to pursue agriculture-related courses is not completely absent.”

He adds that there are plenty of indirect forms of engagement in agriculture that young people want to take part in such as being infomediaries (information providers) for their farmer-parents.

Taking off from his earlier research findings, Manalo together with his team at DA-PhilRice initiated the Infomediary Campaign back in 2012. The campaign aimed to create alternative communication pathways in agriculture by mobilizing high school students as information providers in their respective rice-farming communities.

A way of serving as information provider is sending text messages to the PhilRice Text Center, a text messaging platform for farmers being managed by PhilRice. The success of this campaign led to an off-shoot project funded by the DA-Bureau of Agricultural Research that aimed to conceptualize and develop climate change-adaptive schools. Manalo’s team collaborated with the Technical-Vocational (TecVoc) Unit of the Department of Education to realize this project.

“There is an urgent need to develop mechanisms to ensure continuous food production in the midst of climate change,” explained Anna Marie F. Bautista, science research specialist and project team member.

About the project

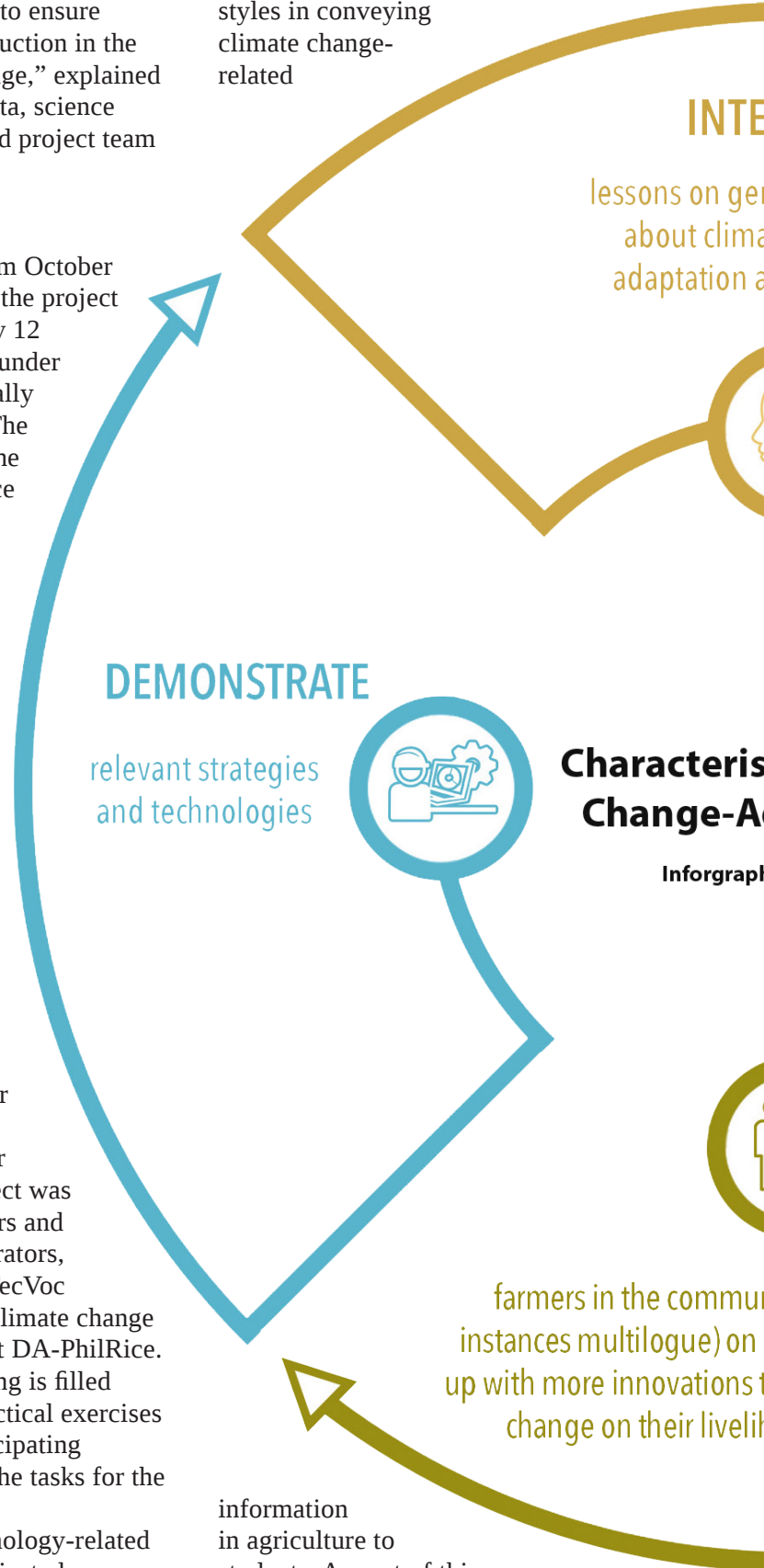
Implemented from October 2016 to March 2019, the project was participated in by 12 high schools, mostly under the TecVoc, strategically located nationwide. The overarching goal of the project was to enhance school-community interaction with regard to climate change, and technologies that may help rice-farming communities adapt to its impact.

An example is the alternate wetting and drying technology, which is a water management technology. It is an adaptive mechanism that helps farmers in optimizing their water resource.

Among the major strategies of the project was the training of teachers and their school administrators, sometimes with the TecVoc Education Head, on climate change and rice production at DA-PhilRice. The week-long training is filled with lectures and practical exercises which will help participating teachers prepare for the tasks for the project.

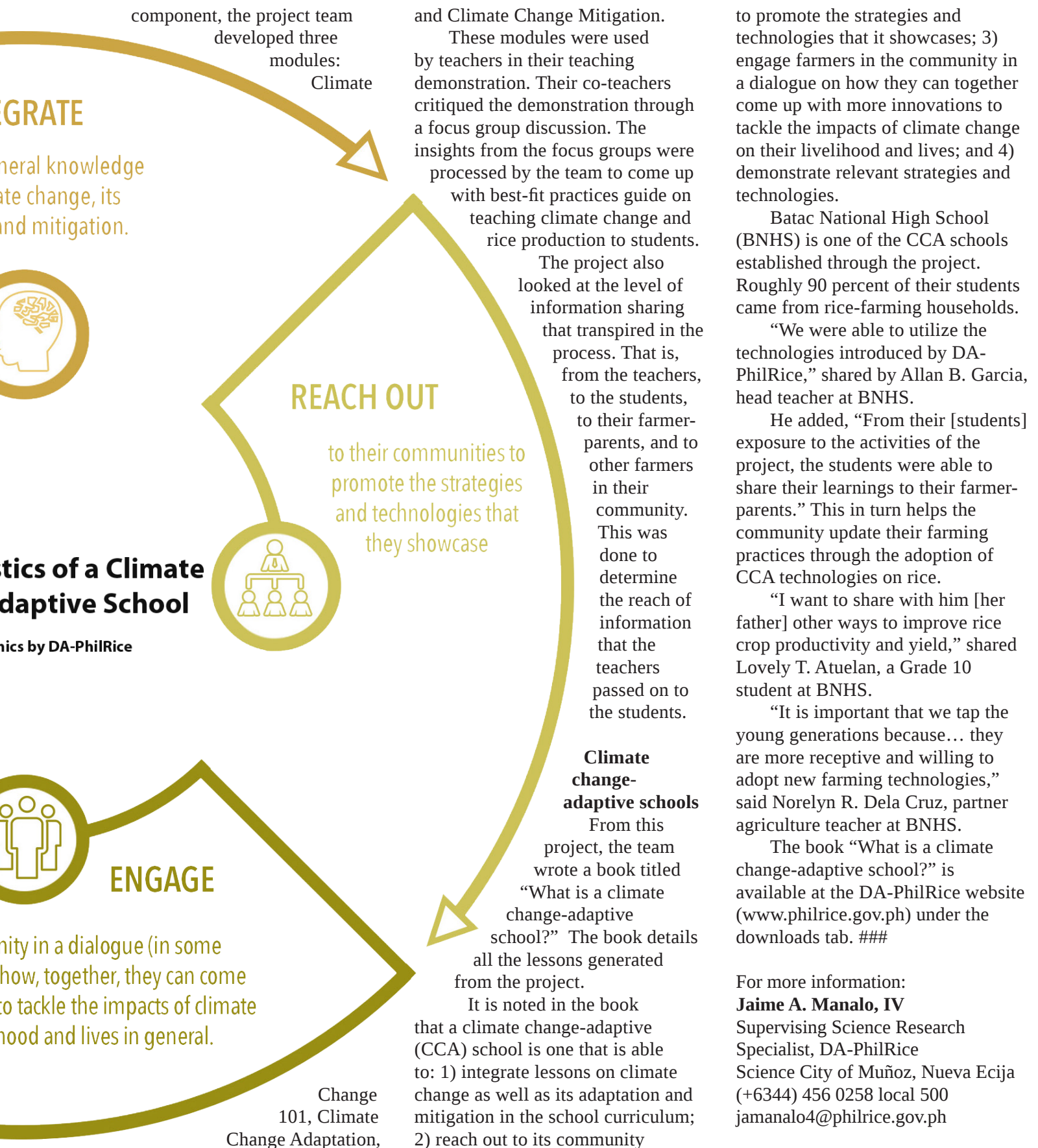
Aside from technology-related interventions, the project also

documented effective teaching styles in conveying climate change-related



through climate change-adaptive schools

a S. Hermoso



MMSU showcases garlic tech, conducts farmers' field day in 4 provinces

The Mariano Marcos State University (MMSU) showcased garlic technology through the conduct of Farmers' Field Day in Abra, Nueva Vizcaya, Isabela, and Cagayan on 10-13 February 2020 as part of the implementation of the project titled, "Multi-Location Adaptability Trials for Registered Garlic Varieties and Other Cultivars."

To raise the self-sufficiency ratio for garlic in the country, MMSU, together with the Department of Agriculture (DA) - Ilocos Region and the DA-Bureau of Plant Industry-Los Baños National Crop Research Development and Production Support Center, implemented the multi-location trials in Regions 1, 2, 3, 5, 6, and the Cordillera Administrative Region.

Funded by the DA-Bureau of Agricultural Research (BAR), the initiative aimed to identify possible expansion areas for garlic production. Seven promising garlic varieties, namely, Ilocos White, Ilocos Pink, Tan Bolters, Mexican, Miracle, Batanes Red, and VFTA 275m276 (*Bang-ar*) were tested in the project.

MMSU found that Ilocos White, Ilocos Pink, and Miracle were most suitable in Cagayan; Miracle and Ilocos Pink in Nueva Vizcaya; Ilocos White and Tan Bolters in Abra; and Tan Bolters in Isabela.

Dr. Dionisio Bucao of MMSU, project leader, explained to the participants the rationale of the project and its importance for the [turn to page 8](#)



INSET: Dr. Dionisio Bucao of Mariano Marcos State University, project leader, explains that the multi-location adaptability trial project was initiated to identify possible expansion areas for garlic to meet the high demand. PHOTOS: RHERMOSO



Marissa Atis of Mariano Marcos State University, project staff, talks about the different garlic varieties planted at the demo farm in Iguig, Cagayan.

BAR CHRONICLE highlights the bureau's activities as the country's national coordinating agency for agriculture and fisheries R4D, and provides updates on NaRDSAF-member institutions.

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Quezon farmers receive training on coco sap sugar production

To help coconut farmers boost their production and profitability through value addition, the Local Government Unit (LGU) of Tagkawayan, Quezon, in partnership with the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), conducted a training-seminar on the processing of coconut sugar on 20 February 2020 in Tagkawayan, Quezon.

Participated in by close to 50 local coconut farmers from the 11 barangays of the municipality, the training-seminar was facilitated by representatives from the DA-Quezon Agricultural Research Experimental Station and the Quezon, Quezon LGU.

Benjamin Villaflor, former municipal agriculturist of Quezon, Quezon LGU and one of the project proponents of the DA-BAR supported project “Production, Promotion, and Commercialization of Coconut Sap Sugar in the Province of Quezon,” discussed the processing of various

products from coconut sap such as sugar, vinegar, and wine.

Success stories of the project through the bureau’s National Technology Commercialization Program were also shared. Demonstrations on the proper extraction of coco sap and growing the dwarf variety of coconut recommended for production was also conducted.

Gracing the activity were Hon. Luis Oscar Eleazar, Tagkawayan municipal mayor; Rolando Mendoza, Tagkawayan municipal agriculturist; Domingo Carranza, Tagkawayan Market Vendors Cooperative president; and Edgardo Estrope, Brgy. Mansilay Coconut Farmers Group leader.

In his welcome remarks, Tagkawayan Mayor Eleazar underscored the opportunity that awaits local coconut farmers considering the existing good practices which they can adopt, and

the volume of the commodity that can be processed and value-added to increase the income and improve the livelihood of farmers.

Also part of the training-seminar was the distribution of information, education, and communication materials produced by the Applied Communication Division of the bureau, which can serve as guide for the farmers in growing and developing the cacao in their farms.

The said activity is one of the activities conducted to equip coconut farmers and farmer-cooperatives with skills and knowledge they can utilize and strengthen through the Coconut Processing R&D Center to be established in the municipality through the bureau’s Research Facilities Development Grant. The training-seminar is second of the series of activities to be conducted in Tagkawayan after the cacao training-seminar conducted on August 2019. **### (Clarisse Mae N. Abao)**



The coconut farmers from Tagkawayan demonstrate the installation of bamboo to the coconut trees. PHOTO: CMABAO

Over 130 participants attend seminar on soybean production, processing



Elmer Enicola of the UPLB-Institute of Plant Breeding serves as the resource speaker during the in-house seminar. PHOTO: EVCAÑAVERAL

Over 130 participants who attended the monthly free seminar of the Department of Agriculture-Bureau of Agricultural Research (DA-BAR) were trained on soybean production and processing on 27 February 2020 in Diliman, Quezon City.

The activity was done in support of the expansion of soybean’s potential and to highlight the utilization and impacts of the consumption of soybeans.

Elmer Enicola, an agricultural researcher at the University of the Philippines Los Baños (UPLB) -Institute of Plant Breeding, served as one of the resource speakers during the activity. He discussed the initiatives currently being done by the research for development (R4D) community on the increasing demand for soybeans and other plant-based diets. Further, he talked about the

rising protein consumption on the country along with some emerging varieties of soybeans.

To accompany the technical discussion, Rommel Bailey, a social entrepreneur and the owner of the Soya Sarap Organic Soy Products, demonstrated different ways to cook soybean products and by-products. The recipes featured were “Okara – *Puso ng Saging* Burger Patty” and “Okara Lumpia.” The main ingredient, Okara, is a by-product of soy milk and tofu production.

The monthly seminar series is spearheaded by the Applied Communication Division of the bureau to disseminate information and technologies generated from agriculture and fisheries research for development projects and initiatives. ### (Chantale T. Francisco)

MMSU showcases...from page 6 garlic industry. He reported that the demand for garlic in 2017 is 128,000 metric tons and the country could only supply 7.4 percent. Another problem encountered by the industry is the declining area allotted for production from 4,447 hectares in 2006 to 2,647 hectares in 2016.

He also discussed how the team implemented the project from determining the biophysical and climatic characteristics of the potential garlic-growing areas, to testing the adaptability of registered garlic varieties and other cultivars and identifying phenological events associated with insect pest and diseases incidence which serves as a tool for pest management.

To further encourage farmers to plant garlic after the completion of the project, Dr. Bucao discussed garlic production technologies developed by MMSU. He emphasized that these strategies worked for garlic farmers in Ilocos, but these have to be adjusted to fit the present situation in other provinces.

Farmer-partners, even farmers from neighboring municipalities in each province, municipal agriculturists, representatives from the local government units, and other key stakeholders attended the said activity. They visited garlic demo farms and were able to raise their questions regarding the production of garlic.

To inform the participants of the other research-generated technologies supported by DA-BAR, free information materials such as crop calendars and technology digest were also distributed. ### (Rena S. Hermoso)

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further entrepreneurial support services; DA-AMAS and DA-ATI will provide grants for each youth incubatee; and DA-ACPC shall finance capital requirements of start-up or existing agri-based projects for incubatees that will meet the success indicators provided. ### (Clarisse Mae N. Abao)