

BAR stages 8th Agri & Fisheries Technology Forum and Exhibit

Celebrating its 25th anniversary as the Department of Agriculture's (DA) national coordinating body for agriculture and fisheries research and development (R&D), the Bureau of Agricultural Research (BAR) sets the stage for this year's 8th Agriculture and Fisheries National Technology Commercialization Forum and Product Exhibition. The activity is scheduled on 9-12 August 2012 at SM Mega Trade Halls 1 and 2, SM Megamall, Mandaluyong City.

With the theme, "*BAR @ 25: Celebrating R and D Excellence in Agriculture and Fisheries*", the event is expected to exceed last year's noted visitors of more than 9,000 from various stakeholders including the attached agencies and regional field units of the DA, research institutions, local government units, state colleges and universities, non-government organizations, and private sector.

The four-day event is annually organized by BAR highlighting some of the important technologies generated under its National Technology Commercialization Program (NTCP), a banner program of the bureau. NTCP serves as a vital tool for the development of enterprises and the improvement of agriculture- and

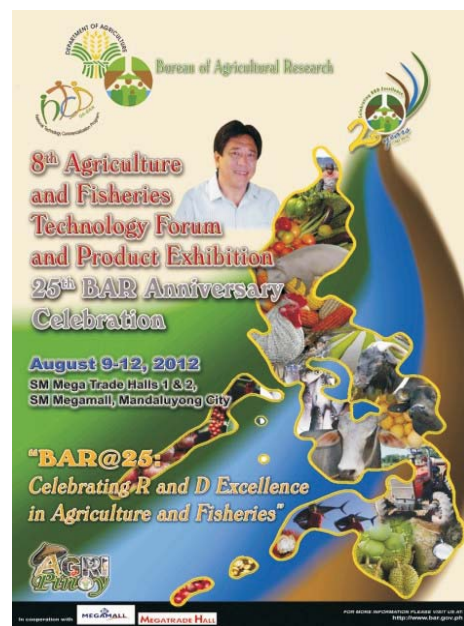
fisheries-related industries.

For this year's exhibit, the central setting display will showcase some of BAR-supported programs and projects including biofuels/sweet sorghum, soybeans, adlai, livestock, fisheries, beekeeping, fruit wines, queen pineapple, sapinit, oregano, mango, and Intellectual Property (IP).

With a bigger venue this year, the event is expected to accommodate around 130 exhibitors to showcase various products, services, and commerciable technologies also on the following categories: high-value crops, natural products/ natural ingredients for health and wellness, organic agriculture, and climate change.

Featured technologies and products are generated by BAR partner R&D institutions including Department of Agriculture (DA) attached agencies, staff bureaus, Regional Field Units (RFUs), Regional Integrated Agricultural Research Centers (RIARCs), Regional Fisheries Research and Development Center (RFRDCs), State Universities and Colleges (SUCs), and private sector.

There will also be presentations in the form of seminars, business matching for possible partnerships, and other ventures for



profitable agricultural enterprises.

The technology forum and product exhibition aim to identify, disseminate and promote mature technologies in the fields of agriculture and fisheries, and to establish and strengthen linkages and networks with private sector, non-government organizations, local government units and other government agencies in terms of product marketing. (Ma. Eloisa H. Aquino)

Eleazar underscores R&D initiatives to bring Phl coffee back to world market

The Department of Agriculture (DA), as the country's lead agency that addresses agricultural concerns and imperatives, "partnered with government and private sectors to come up with programs that aim to develop and sustain the Philippine coffee industry," reported Director Nicomedes P. Eleazar of the Bureau of Agricultural Research (BAR) who served as the guest speaker during the "KAPIHAN: A Coffee Day Celebration" held on 28 June 2012 in Indang, Cavite.

To provide opportunity to stakeholders to discuss issues, share experiences across the coffee chain, and provide a venue to strengthen business relationships, the Cavite State University (CvSU), through the National Coffee Research, Development and Extension Center (NCRDEC), organized the KAPIHAN with the theme, "*Bring Philippine Coffee Back to the World Market*."

"With renewed commitment and support from both the government and private sectors, it's not impossible to realize the dream of the Philippines becoming a major producer of coffee once again. And by the time we have been able to reach this, everybody will benefit including the farmers, the consumers, and the industry," underscored Dir. Eleazar.

The well-attended event—participated by representatives from various coffee stakeholders from both the public and private sectors—was part of the 4th Research, Extension, Continuing Education and Training Services (RECETS) week, an activity of the University. In attendance were coffee farmers, researchers, machine fabricators, certification agencies, coffee processors, exporters and importers, as well as international partners.



BAR Director Nicomedes P. Eleazar (left) delivering his keynote address during the CvSU's KAPIHAN: A Coffee Day Celebration addressing on how the catalytic role of R&D in bringing back the coffee industry to the world market. PHOTOS: EAQUINO

Coffee is considered among the country's top 10 agricultural crops in terms of value and second most traded commodity in the world. Coffee, does not only occupy an important role in the Philippine economy, but also in the world economy.

The Philippines grow all four varieties of coffee, namely: Robusta, Arabica, Excelsa, and Liberica—under which the well-known "Barako" coffee is classified.

Dr. Ruel M. Mojica, OIC of NCRDEC, officially opened the event. "NCRDEC is committed to join all of your efforts to promote Philippine coffee to the world market," he said. He noted the need to overcome the challenges in order to position coffee in the world

market. "Increase coffee production and productivity; strengthen coffee processing to improve quality; diversify market by promoting local consumption,

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and look beyond our traditional market, and trade relations,” Dr. Mojica enumerated.

Dr. Hernando D. Pobles, vice president for Administrative and Support Services of CvSU, delivered an inspirational message in behalf of CvSU President Divina C. Chavez. In his message, Dr. Pobles proudly mentioned the first coffee blend produced by CvSU, the *Aguinaldo Blend*.

Dr. Alejandro C. Mojica, Sr., vice president for RECETS, introduced Dr. Eleazar as the guest speaker. He acknowledged BAR's Php 5-million support for the improvement of the NCRDEC and the ongoing BAR-CvSU projects on coffee roasting machine and researches on organic coffee.

In return, Dir. Eleazar commended the initiatives and activities being undertaken by the CvSU-NCRDEC for their continuous support in the development and advancement of the coffee industry through research and development.

BAR, as the lead R&D coordinating agency of DA, has supported projects in line with coffee production in the Philippines which are implemented by CvSU-NCRDEC.

NCRDEC, as the country's source of information on the recent trends and development in the coffee industry, was established upon the designation of BAR to CvSU as the lead institution in crafting and implementing the National Integrated Research and Development Extension Program for Coffee in 1999. Last year, existing R&D facilities of NCRDEC was improved through BAR's Institutional



Aguinaldo Blend is the first coffee blend produced by CvSU, which was highlighted during the KAPIHAN. PHOTOS: RDELACRUZ

Development Grant (IDG).

Through this project, the center's capability on conducting basic and applied researches on coffee production and marketing had been strengthened and advanced. Furthermore, the improved facilities also enabled them to provide a more informed and updated technical knowledge and support to coffee farmers, students, and other coffee industry stakeholders.

Meanwhile, through BAR's National Technology Commercialization Program (NTCP), a project on the piloting and commercializing of microcontroller-based coffee roasting machine was also funded. CvSU, partnered with Global Marketing & Construction Corporation for the

fabrication of the prototype. Named as Bravura coffee roasting machine, it is considered to be the very first vertical coffee roaster.

“The parameters for attaining the standard roast has been established and modified the existing Horizontal Roaster with ribbon-type mixer to arrive at a more efficient design using Vertical Design with auger to improve the roasting quality,” Dr. Mojica explained.

DA, through the DA-High Value Crops Development Program (HVCDP), has already crafted the Coffee Roadmap allotting support to address the decline in coffee production. **(Ma. Eloisa H. Aquino)**

“With renewed commitment and support from both the government and private sectors, it's not impossible to realize the dream of the Philippines becoming a major producer of coffee once again. ~ Eleazar



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BAR intensifies..from page 9

Among the LPMPC sites visited was the queen pineapple processing center wherein pineapple juice extracted from fully matured fresh Formosa pineapple fruit harvested from controlled farms of the cooperative were pressed and processed by means of boiling.

The bureau chief also visited the Coop's weaving center. The fibers derived from the leaves of the “Queen” pineapple underwent the punctilious task of weaving to achieve a *piña* cloth. Manually-scraped and machine-decorticated *piña* fibers were interwoven with other fibers, such as polyester or silk. Fibers interwoven with silk results in *piña* silk, which is later made to *Barong Tagalog*, *camisas*, or *kimona*.

LPMPC also uses the decorticated pineapple fiber as an excellent material in making a handmade *piña* paper. GM Espeso oriented Dir. Eleazar on pineapple handmade paper making processed at their LPMPC Handmade Paper Production Center.

With the growth and development that it has accomplished so far, LPMPC continues to conceptualize and undertake innovative and integrated production and processing activities to sustain the production of the Queen pineapple. The Cooperative is also working to meet the requirement to expand production farms, which now extend to 100 hectares, and to develop organically-grown pineapple that will comply with the Organic Agriculture Act requirements. **(Mara Shyn M. Valdeabella)**



PHOTOS: courtesy of OD/BAR



With the growth and development that it has accomplished so far, LPMPC continues to conceptualize and undertake innovative and integrated production and processing activities to sustain the production of the Queen pineapple.

CPAR..from page 17

over scheme. Every farmer-cooperator was provided five 30–40-day-old weanlings plus formulated fattening feeds good for four months. Once fattened, the municipal office is responsible for the marketing and for the identification of the next farmer beneficiaries. The net income of the farmers involved in the project was derived therefore from the remaining stocks after the package have been plowed back to the next set of farmer-beneficiaries.

The feedmill facilities provided under the CPAR project involved the distribution of mixer and micro mixer with engine; hammer with engine; weighing scale plus the starter feeds for the animals. The total financial package provided by BAR amounted to P500,000. The local government unit on the other hand, provided the building/ structure of the feedmill; 100-heads of farm animals and other Personnel Services (PS) including services and professional fees of nutritionists were tapped for the project, as well as other Maintenance and Other Operating Expenses (MOOE) incurred prior and during the implementation of the project.

The BAR Monitoring and Evaluation Team in an interview with Municipal Agriculturist Santos said that, “the feedmill since it became operational addressed two major factors: first, it addressed the oversupply of corn in the municipality and eventually avoided spoilage; second, the feedmill was able to produce low-cost feeds.” The average price of commercial feeds ranges between P 1,000–P 1,200 per 50 kilogram. “Now, with the feedmill in operation, farmers can now purchase feeds at a reduced and much lower price allowing farmers to further stretch their income,” she concluded.

The CPAR project in Agusan del Sur somehow elevated the socio-economic status and competitiveness of the farmers. The favorable result of the project opens a wide market for feeds. The demand for feeds produced through the feedmill increased because the cost is much lower compared to that of commercial ones. With sustained government support and pro-active farmers in this undertaking, the province may one day be erased from the list of being poorest of the poor. ###



PHOTOS: PLESACA

Potential food products from “Batanes berries” explored

Batanes is not only visually known for its picturesque landscapes of verdant rolling hills and lush mountains, its iconic stone houses, its raw climate, and its unique cultural heritage. Batanes is also home to an indigenous tree, Arius (*Podocarpus costalis*), which the *Ivatans* refer to as “Batanes pines.”

The tree, which grows 1–2.5 meters in height, is abundantly growing in the province and is mainly used for its aesthetic value. It is being grown in the provincial park and town plazas, school grounds, church yards, backyards, along roads, and other paraded areas of the province for better appreciation of their landscape. During Christmas season, the locals trimmed the Arius to resemble Christmas trees and placed it in their lawns as decorative accent. Locals also revealed that they used Arius for bonsai, which is excellent for landscaping.

Arius bears berry-like, fleshy fruits that become brightly colored from red to purple when mature. Although these berries are not popularly eaten in the province, they are consumed by birds and the seeds are dispersed through their droppings.

When a local was asked how the berry tastes like, they would usually say, “*masarap, matamis, medyo malagkit*” (delicious, sweet, somewhat sticky). Since most of the locals are not aware that the fruits are actually edible, most of the fruits just rot and decay and are left unutilized.

Looking into the potential of this indigenous tree and its carbohydrate-rich berries, Dr. Roger G. Baltazar, director for research and extension of the Batanes State College (BaSCO), submitted a proposed study to the Bureau of Agricultural Research (BAR) for funding. The bureau has been keen on supporting R&D initiatives that gives particular importance to the country’s indigenous plants and the need to tap and utilized them for their potentials.

The project is funded under the



Arius tree (*Podocarpus costalis*) is mainly used for its aesthetic value. PHOTO: RDELACRUZ



Fruits from the Arius which processed to develop various products such as wine and tea. PHOTO: WPOLLISCO

bureau’s banner program, the National Technology Commercialization Program (NTCP) which gives priorities to R&D breakthroughs and mature technologies generated and developed by research institutions. The program serves as a vital ingredient in the development of enterprises and the improvement of agriculture and fisheries-related industries.

The study, “Processing Technology Development and Utilization for Organically Grown Arius Fruits in Batanes” aimed to develop technologies to be used in the processing of organically-grown Arius fruits as well as other value-adding activities that will provide highly-marketable products from these Batanes berries.

Among the Arius-based products that will be developed from the project include wine, pastilla, tart, jam, preserved fruits, and teas.

The project has been recently approved by BAR for funding, allotting PhP1.6M to further promote growing of Arius and create livelihood in the province through the commercialization of its food products. Given the agro-climatic condition of Batanes that is

suited for growing Arius tree, this project is also seen to further promote this indigenous tree that is seen to be facing a very high risk of extinction in the wild, according to the Department of Environment and Natural Resources.

It is also worth noting that Arius trees bear fruits only in Batanes. This was proven when one Batanes visitor tried to grow the tree in the lowland. It did grow but the tree did not bear fruits unlike those grown in Batanes.

According to Dr. Baltazar, the Arius trees are in season and bear fruits during summer (April and May) but its berries are ready for picking usually from July to October. Berries that will be used for the project will be handpicked from its trees and placed in plastic containers so that they will not be scratched and smashed during the transportation process. The proponent added that the products which will be developed will be tested for market acceptability. (Rita T. dela Cruz)

Undergrad Scholarship Program launched



A Memorandum of Agreement (MoA) is signed between BAR Director Nicomedes P. Eleazar [3rd from right] and UPLB Chancellor Rex Victor Cruz [3rd from left]. Joining them are: [VIP table, L-R] UPLB Foundation Inc. Exec Dir. Cecilio Arboleda, UPLB Vice Chancellor for Instruction Oscar B. Zamora, BAR-IDD Head Digna Sandoval, UPLB Dean of the College of Agriculture Domingo Angeles, [standing, L-R] UPLB Vice Chancellor for Community Affairs Enrique L. Tolentino, Jr., UPLB Vice Chancellor for Research and Extension Ma. Victoria Espaldon, and BAR staff, Marjorie Mosende and Mara Shyn M. Valdeabella.

PHOTO: UPLB

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR), through the instructions of Dr. Segfredo R. Serrano, DA undersecretary for Policy, Planning, Research and Development and Regulation, launched the DA-BAR Undergraduate Scholarship Program on 5 June 2012.

With UPLB being the country's center of excellence in agriculture education, the undergraduate scholarship program will be initially offered to incoming and continuing students who are taking agriculture and agriculture-related courses.

Conceptualized in collaboration with the UPLB, the DA-BAR's undergraduate program is the latest addition to the bureau's existing Degree Scholarship program, which supports R&D employees who wish to pursue graduate studies (MS or PhD).

“With this program, we are really targeting those who are deserving, but are unable to afford the existing UPLB tuition fee.”
~ Eleazar

Initially catering to three BS Agriculture Biotechnology students and seven BS Agriculture students, preferably majoring in entomology, soil science, and plant pathology—as serious decline among students who choose to major in these fields had been observed in the past, an initial fund of five million pesos was released to UPLB.

“With this program, we are really targeting those who are deserving, but are unable to afford the existing UPLB tuition fee,” said DA-BAR Director, Dr. Nicomedes P. Eleazar.

Another initiative of DA Secretary Proceso J. Alcala, this program is in response to one of the programs of Agriculture and Fisheries Modernization Act (AFMA) that aims to strengthen the skills and knowledge of scientists, researchers, and technical staff for the attainment of a more responsive and efficient agriculture and fisheries R&D system.

Both UPLB and BAR are hopeful that these BAR scholars will use what they have learned from the university for the advancement and improvement of the country's agriculture sector. (Mara Shyn V. Valdeabella)



BAR Dir. Nicomedes P. Eleazar (right) gives the ceremonial check to UPLB Chancellor Rex Victor O. Cruz (left). An initial fund of P5M was released to UPLB to implement the program at UPLB.

PHOTO: MVALDEABELLA

Successful corn feedmill operation in Sta. Josefa made possible with CPAR

BY PATRICK RAYMUND A. LESACA

The Municipality of Sta. Josefa, Agusan del Sur, is one of the pioneering Local Government Units (LGUs) that implemented the Community-based Participatory Action Research (CPAR) of the Bureau of Agricultural Research (BAR). CPAR is one of the banner programs of the bureau catering to the country's marginalized sectors of the country. The heart and soul of the program is to empower the small-scale farming communities. The province of Agusan del Sur belongs to the poorest of the poor.

The collaborative efforts of the Department of Agriculture – Regional Field Unit XIII/ Caraga Integrated Agricultural Research Center (CARIARC) and LGU-CARAGA paved the way for the successful implementation of a feedmill operation which is situated within the locality. The establishment of such was a dream came true. It generated economic activities and contributed economic benefits among the livestock and poultry farmers in the area.

The “Establishment of a Feedmill Utilizing Corn Project” in CARAGA was conceptualized through CARIARC in collaboration with the Provincial Veterinary Office of Agusan del Sur and the DA RFU-XIII Regulatory Division. Initially, the project was conceived to remedy the corn surplus of the municipality and to put such excess corn to productive use through the introduction of a low-cost and well-milled corn feeds for swine and poultry farmers. Traditionally, swine growers in Sta. Josefa depend highly on the indigenous feedstuffs such as *darak*, *kang-kong* and *gabi*. It was anticipated then that prior to the setting up of a feedmill, the presence of one will really contribute to the profitability of swine and poultry growers.



PHOTO: PLESACA

The project proponent, RIARC Manager Wilfreda Maslog of DA-RFU XIII/ CARIARC, in collaboration with Municipal Agriculturist Officer Josefa D. Santos implemented the CPAR in November 2007 and was completed in March 2010. Although the project cycle had already been completed, farmers in the area are still implementing (in terms of sourcing their feed requirements) the project on their individual and collective capacities.

Furthermore, farmers are

clamoring for a bigger feedmill to suit their milling operations. In fact, farmers involved in the project have organized themselves into a cooperative. Since the project started in 2007, there were 30 farmer-beneficiaries representing three barangays of Sta. Josefa were selected to implement the project. At the end of the project cycle, 85 farmer-beneficiaries covering the whole 11 barangays were added in the roster through the CPAR roll-

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Corn coffee...from page 15

drinking corn coffee. "It can control diabetes, prevent cardiovascular disease, lower hypertension, reduce cholesterol level, minimize risk of colon cancer, and prevent neural-tube defects in infants," he reported.

The economic benefit

Corn coffee is not new. In fact, people in the province have been boiling their roasted, ground corn as alternative to coffee.

Currently, with the advent of new technologies and the need for healthy alternative, corn coffee has already reached the mainstream market. It is being commercially sold and is available in the supermarket, one of which is the famous Sumilao Corn Coffee™.

"But if you want to produce your own coffee, it's easy. Ground corn is roasted until the color turns to dark brown. The resulting coffee powder is boiled for 10–15 minutes. You just allow the sediments to settle and then get the black liquid and then your hot corn coffee is ready to serve. Sugar and cream can also be added to enhance the taste," explained Rodriguez.

The production cost of corn coffee is cheap. "One kilogram of corn when processed can produce an approximately one kilogram of coffee," he said. When packaged, the production cost is about Php120 per kilogram. Corn coffee is currently being sold in the market from Php350–500 for every kilogram. This means at least Php230 profit for every kilo of corn coffee sold. ###

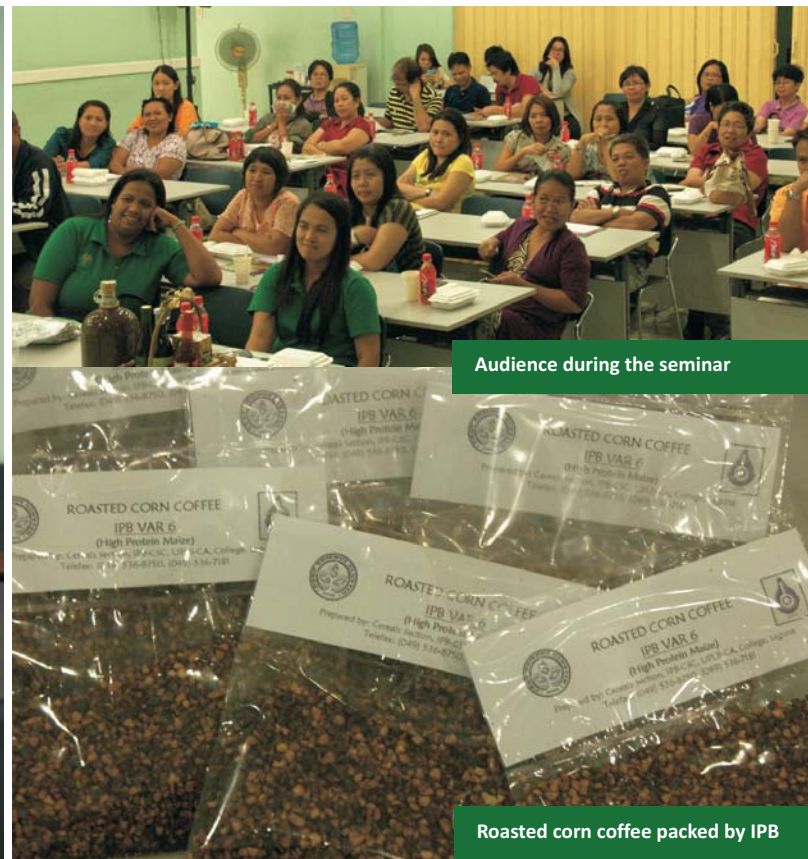
For more information about corn coffee, please contact Mr. Chito Rodriguez of the University of the Philippines Los Baños (UPLB), College, Laguna or through his email: chito.rodriguez@ymail.com



PHOTO: RDELACRUZ



Mr. Chito Rodriguez of IPB-UPLB, resource speaker during the corn coffee seminar



Audience during the seminar

Roasted corn coffee packed by IPB

PHOTOS: DDELEON

CABI presents Plantwise initiatives



(Left photo) Dr. Shaun Hobbs, CABI Plantwise Knowledge Bank Director, gives more information about the knowledge bank and demonstrates to the audience how to operate it. (Right photo) Mr. Phil Abrahams, CABI Market Development Director, discusses Plantwise in detail. PHOTOS: ABRION



The Bureau of Agricultural Research (BAR) sponsored a special seminar on Center for Agricultural and Bioscience International's (CABI) Plantwise initiatives and programs. The Institutional Development Division (IDD) of the bureau coordinated and spearheaded the seminar which was held at BAR, Diliman, Quezon City on 13 June 2012.

The seminar underscored the importance of addressing global and domestic concerns on crop losses through the utilization of knowledge on crop pests and diseases, of which, CABI, a non-profit international agricultural research center, is frontlining. It is globally recognized as secondary publisher of databases on various subject areas, including human and animal health, plant and natural sciences, agriculture, human development and economics. CABI is also active in biotechnology and its applications to agriculture and forestry.

Dr. Nicomedes P. Eleazar, BAR director, delivered a message expressing his appreciation to CABI for sharing and extending to the country its initiatives on securing agricultural protection and productivity. He articulated further CABI's contribution in finding solutions to present day issues and making them

available and applicable to the farming communities.

Dr. Loke Wai Hong, CABI Regional Director for Southeast Asia, provided a brief backgrounder on Plantwise and explained the role of CABI in agricultural research and expounded on the activities that their institution does to help alleviate poverty worldwide.

Mr. Philip Abrahams, CABI Market Development Director, discussed the specific platforms and objectives of CABI. According to him, through, Plantwise, one can reduce crop losses by collecting and sharing vital information about plant health. With the right knowledge—one can easily identify plant health problems, slow down the spread of plant pests and diseases and provide the correct treatments before yields are significantly affected. He stressed that the Center helps developing countries set up and run independent plant clinics and build plant health networks. The plants clinics are being supervised by well trained "plant doctors."

Another area of interest that surfaced in the seminar was a presentation on Knowledge Bank that was presented by Dr. Shaun Hobbs, CABI Plantwise Knowledge Bank Director. According to Dr. Hobbs, the

Plantwise Knowledge Bank is a tool that provides access to the latest information on plant pests and diseases. It offers online diagnosis and treatment support regarding plant health. The Bank also includes information from CABI's knowledge resources and the information generated by the Plant Clinics. The system offers online diagnosis and treatment information to support the plant clinics. It also gives updates on the incidence and spread of pest and disease threats in a region thus forewarning crop protection authorities.

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Dr. Nicomedes P. Eleazar delivers his welcome address to the foreign delegates from CABI. PHOTO: ABRION

CABI presents...from page 5



Dr. Eleazar and Dr. Solsoloy having a small talk with the CABI officers about Plantwise.

PHOTO: ABRION

Crop protection officers and representatives from various institutions including the University of the Philippines Los Baños (UPLB), Central Luzon State University (CLSU), Bureau of Plant Industry (BPI), Agricultural Training Institute (ATI), and Regional Crop Protection Centers (RCPCs) in

regions 1, 2, 3, 4A, 5, and Cordillera Administrative Region (CAR), attended the seminar.

Mr. Victoriano Guiam, assistant head of BAR-IDD, served as the master of ceremony. Mr. Guiam expressed his gratitude to the CABI delegates for their efforts in promoting a viable medium

and means in protecting crops, farmers, and other farm workers in general.

Assistant Director Teodoro S. Solsoloy concluded the event by thanking CABI officials and all of the attendees for participating. Dr. Solsoloy added that the seminar, as presented by CABI, brought new perspective in pests and diseases management and control. "This is an added feature, as far as agricultural protections are concerned and a welcome development in the Philippine agriculture," he concluded. **(Patrick Raymund A. Lesaca)**

BAR releases new NTCP logo

The Bureau of Agricultural Research (BAR) releases a new logo of the National Technology Commercialization Program (NTCP), one of the Bureau's banner programs. The vibrant colors used represent the growth of the various agriculture and fisheries (A&F) sector through which BAR has assisted a number of programs and project underneath.

The depiction of the three people on top of the letters N-T-C-P epitomizes strengthened and intensified programs over the years through Public-Private Partnership. Specifically, the three caricatures represent the three important sectors that make technology commercialization effective and efficient. These are: the public, private and civil society groups, and R&D institutions.

The public sector provides policies and funding support for the conduct of various initiatives, activities and generation of technologies to mitigate hunger,

reduce poverty and attain inclusive growth in the country. R&D institutions are the technology generators and implementers. In return, the private sector and civil society groups assist in promoting and commercializing these products and technologies generated from R&D. Together, these three sectors create jobs and provide income opportunities that will ultimately lead to the development of the agriculture and fisheries communities.

BAR, as the lead coordinating agency in agriculture and fisheries R&D of DA, supports a strengthened PPP which is envisioned to support technology commercialization and development of the sector.

The engraved text, DA-BAR, shows that NTCP is an anchored program of the bureau. Established in 2005, NTCP ensures that technologies are strategically placed and transferred to areas and communities that most needed them.

Highlighting R&D



breakthroughs and mature technologies, NTCP serves as vital tool for the development and improvement of A&F-related enterprises anchored on appropriate activities including technology transfer, promotion, adoption, utilization and commercialization.

NTCP is being coordinated by BAR's Technology Commercialization Division. **(Ma. Eloisa H. Aquino)**



PHOTO: RDELACRUZ

Corn coffee: The healthy alternative

BY RITA T. DELA CRUZ

Majority of Filipinos are coffee drinkers. The growing number of coffee shops in almost every corner of the metro has become the most evident indication that the coffee industry is a thriving business. Whether it's a form of social activity or simply a favorite pastime, drinking coffee has become an inevitable trend.

With the popularity of coffee as a beverage comes the cautious effort to lessen the caffeine intake especially among health conscious consumers. Hence, introducing alternative drinks that will let people enjoy drinking coffee without worrying too much caffeine intake.

"Corn coffee looks and tastes like your good ol' caffeinated coffee, but it is healthier to drink. Perhaps a distinction comes with the aroma since corn coffee comes from ground, roasted corn," explained Mr. Chito Rodriguez of the Institute of Plant Breeding-University of the Philippines Los Baños (IPB-UPLB) in a seminar talk organized by the Bureau of Agricultural Research (BAR).

In the presentation titled, "Corn Coffee: Health and Economic Benefits," Rodriguez underscored the "dark side of

caffeine" one common of which are panic attacks. "Caffeine intake triggers the fight-or-flight mechanism in our bodies. When the fight attack mode wears off, panic attack starts. We get nervous, jittery, sweaty, and shaky. Caffeine is also addictive so once we get into the habit of getting our caffeine fix, our body begins to crave the boost that we get from it. If we fail to get the dose of caffeine that our body has adapted to, we become irritable, tired, and even depressed," Rodriguez explained.

Given the side effects of caffeine, he advised trying coffee corn instead.

The healthful benefit

Essentially, the healthful benefits came from corn which is packed with vital nutrients that provide energy, growth and development, and regulate

bodily functions.

"Although some of these may have been reduced after roasting and grinding the corn, the essential nutrients are still there. Every 100 gram of corn coffee contains carbohydrates, fiber, ash, protein, and antioxidants," explained Rodriguez.

In a taste test conducted after the seminar, Mr. Patrick Lesaca, one of the participants and a coffee enthusiast, revealed that, "corn coffee does look like your regular cup of coffee, except that it smells roasted corn."

"Clearly, a great distinction comes with the health value of corn coffee. The dark liquid you are drinking is caffeine free and is healthier," Rodriguez added.

Aside from the nutritive value, Rodriguez enumerated some of the healthful benefits one can get from

**EVERY 100 GRAM OF CORN COFFEE
CONTAINS CARBOHYDRATES, FIBER, ASH,
PROTEIN, AND ANTIOXIDANTS...**

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Exhibitors convene and prepare for 8th Agri and Fisheries Techforum



PHOTO: EAQUINO

For a smooth implementation and preparation for the coming 8th Agriculture and Fisheries Technology Forum and Product Exhibition, the Bureau of Agricultural Research (BAR), through its Technology Commercialization Division (TCD), spearheaded the “Exhibitors’ Consultation Meeting” on 25 June 2012 at 4/F BAR Conference Hall, RDMIC Bldg., Visayas Ave. Diliman, Quezon City.

Present in the activity were heads and representatives from the Department of Agriculture-Regional Field Units (DA-RFUs), Regional Integrated Agricultural Research Centers (RIARCs), Regional Fisheries Research and Development Centers (RFRDCs), DA staff bureaus and attached agencies, state universities and colleges (SUCs), and exhibitors from the private sector. They were provided with exhibitor's manual containing specific information and guidelines relative to the conduct of the event.

BAR Technical Adviser Virginia L. Agcopra delivered the welcome remarks in behalf of BAR Director Nicomedes P. Eleazar. In the Director's message, she cited that this year's event is slated to be “BIGGER AND BETTER.” “This year's NTF will be “bigger” because we will be occupying two Megatrade Hall venues, for us to accommodate and showcase more technologies generated from supported R&D results from the

agriculture and fisheries sectors. “Better” providing a central display to showcase some of the most relevant and new supported programs and projects of BAR,” Agcopra read.

Mr. Anthony B. Obligado gave an overview and updated the participants on the preparations for the 8th tech forum and product exhibit. On other hand, Ms. Rose C. Soro of the SM Megatrade Hall Office laid down the guidelines for the ingress, egress, and event proper being implemented by SM Megatrade Hall management.

Mr. Gian Carlo Espiritu, chair of the Exhibit Committee, presented the floor plan for the event followed by the

presentation of Ms. Ma. Elena M. Garces of TCD on the exhibit mechanics.

Participants threw in their questions which were earnestly answered by BAR staff. The event also served as a venue to discuss details and other arrangements for the forthcoming event. Likewise, solicit suggestions and other inputs from representatives.

BAR Assistant Director Teodoro S. Solsoloy officially closed the meeting “You are all part of the 25th Anniversary celebration of BAR as the technology forum is an important activity of the bureau,” said Asst. Dir. Solsoloy. He encouraged everyone's cooperation to make the activity successful.

The 8th Agriculture and Fisheries Technology Forum and Product Exhibition is scheduled on 9–12 August 2012 at SM Mega Trade Halls 1 and 2, SM Megamall, Mandaluyong City. This activity is in line with the activities under the National Technology Commercialization Program (NTCP), one of BAR's banner programs.

The conduct of the tech forum and product exhibit aims to identify, disseminate and promote mature technologies in the fields of agriculture and fisheries, and to establish and strengthen linkages and networks with private sector, non-government organizations, local government units and other government agencies in terms of product marketing. **(Ma. Eloisa H. Aquino)**



PHOTO: EAQUINO

BAR, SEARCA hold last leg of KM training for Mindanao Cluster



Participants of the last leg of the “Training Workshop on Knowledge Management (KM) Capacity Building” represented by information officers from the Mindanao Cluster. Joining them are: (L-R, seated) ACD Head Julia A. Lapitan, Optiserve CEO Cheryl Marie Natividad-Caballero, KM Expert and UPOU Professor Alexander G. Flor, and DA-RFU XI RTD Romulo S. Palcon, Angela Mae S. Miñas of SEARCA, and Emily Amoloza of UPOU.

In the proliferation of modern technologies, different platforms have been opened to make information easier to manage and share.

With this, the Bureau of Agricultural Research (BAR), in collaboration with Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), conducted the last leg of the “Training Workshop on Knowledge Management Capacity Building” on 31 May–1 June 2012 in Davao City.

The training workshop aimed to capacitate and sensitize the information officers of various R&D units of Department of Agriculture (DA) to the significance of knowledge management (KM) and the tools that can be used in able to facilitate KM processes smoothly.

Attending the workshop were information officers from the Regional Integrated Agricultural Research Centers (RIARCs) and Regional Fisheries Research and Development Centers (RFRDCs) of the Mindanao cluster. Information officers serve a vital role in managing, harvesting, capturing, transforming, and disseminating relevant

agriculture and fisheries' information to the public.

Gracing the two-day training workshop was Dr. Romulo S. Palcon, regional technical director for R&D, DA-RFU XI, who delivered the welcome remarks. He emphasized his appreciation on bringing KM training to Mindanao and its role to have an efficient and effective information dissemination in agriculture and fisheries.

KM expert and University of the Philippines Open University (UPOU) professor, Dr. Alexander G. Flor started the session with the topics on *KM Leveling off*, and *Agriculture and Fisheries Information and KM: State of Play*. The discourse tackled the basic concepts, tools, and processes involved in KM per se and how KM is applied and used in information, education and communication (IEC).

It is followed by the presentation of case studies on how KM is used and applied in an online platform. First to present was Ms. Cheryl Marie Natividad-Caballero, CEO of Optiserve Technologies. She

discussed on how KM is facilitated through ePinoyFARMS—a web-enabled database. *ePinoyFARMS* stands for Farm Resource Management System which is a web-based application that allows BAR and its research centers' partners to systematize data processing in the monitoring and evaluation of the Community-based Participatory Action Research (CPAR) projects which will render and elicit significant knowledge in agriculture and fisheries.

Ms. Antonieta J. Arceo, OIC of Knowledge and Products and Services Division of the Agricultural Training Institute (ATI), explained the e-extension program of ATI wherein through the utilization of an online platform, the public can access information regarding agriculture and fisheries in any place at any time. Meanwhile, Ms. Angela Mae S. Miñas, KM assistant of SEARCA, discussed another online portal which focuses on a specific thematic subject which is climate change. Knowledge

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Dr. Alexander G. Flor, professor of Information and Communication Studies in UPOU and KM expert, starts the session with the topics on KM leveling off, and Agriculture and Fisheries Information and KM: State of Play. He discusses the basic concepts, tools, and processes involved in KM per se and how KM is applied and used in the information and communication technology (ICT). PHOTO: NREYES

Center on Climate Change Adaptation in Agriculture and Natural Resource Management in Southeast Asia, otherwise known as KC3 functioned both as an information database and at same time as a social networking site.

Highlight of the workshop was the sharing of participants of their current KM practices and what they have learned as they do their duty as information officers. The realities and challenges faced by the information officers in their respective KM practices were surfaced through the workshop.

The bureau, through Ms. Julia A. Lapitan, head of Applied Communication Division of BAR,

discussed the thrust and programs of the bureau through an audio-visual presentation. She also delivered the closing remarks which sums up the catalytic roles of BAR and SEARCA to further advance the KM practices in a government institution such as the DA.

The first leg of the training workshop was participated by information officers from DA and its bureaus and attached agencies from Luzon and Visayas clusters on 26–27 of April of 2012 at SEARCA, Los Baños, Laguna. (Diana Rose A. de Leon)



Ms. Julia A. Lapitan, head of the Applied Communication Division of BAR, discusses the thrust and programs of BAR.

PHOTO: NREYES

BAR participates in 1st National Agritourism Research Conference

In its continued support to the Department of Agriculture's (DA) drive towards a food self-sufficient Philippines, the Bureau of Agricultural Research (BAR) sponsored and participated in the "First National Agritourism Research Conference in the Philippines" spearheaded by the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) on 27–29 June 2012, Los Baños, Laguna.

The three-day conference focused on "Strengthening Agriculture-Tourism Linkages through Research" with an objective to bring together stakeholders into a formal caucus and discuss the status quo and current developments and initiatives of and in Philippine Agritourism.

Apart from representatives from BAR, participants included representatives from government agencies, state universities and colleges (SUCs), concerned groups, and other

practitioners including entrepreneurs and investors in the industry.

Seminars and breakout sessions were geared towards developing both the science and policy aspects of the agritourism industry in the country. A whole day agritourism tour in Costales Nature Farms in Majayjay, Laguna was also scheduled on the second day for a first-hand experience in a thriving agritourist spot.

The definition of agritourism varies from country to country, most include the farms and farming activities that entice tourists to visit. Basically, agritourism refers to the utilization of agricultural components as a main come-on in attracting tourists. This usually includes fruit picking, feeding of livestock and other farm animals, or spending a day or night in a farm (like bed and breakfast establishments).

During the opening ceremony, guests of honor, Dr. Gil C. Saguigit, SEARCA director, shared simply that

...agritourism refers to the utilization of agricultural components as a main come-on in attracting tourists. This usually includes fruit picking, feeding of livestock and other farm animals, or spending a day or night in a farm



DA Usec Serrano poses with the participants of the "First National Agritourism Research Conference" held at SEARCA. PHOTO: ZREYNOSO



DA Undersecretary for Policy, Planning Research and Regulation, Dr. Segfredo R. Serrano, keynotes the conference.

PHOTO: ZREYNOSO

agritourism is where "agriculture becomes a focus of tourism." Dr. Rex Victor Cruz, University of the Philippines, Los Baños (UPLB) chancellor, expressed that agritourism is "how creativity responds to the needs of the society."

DA Undersecretary for Policy, Planning Research and Regulation, Dr. Segfredo R. Serrano discussed in his keynote address the challenges that the country is facing as it strives to attain food self-sufficiency. He noted how numerous issues from trade liberalization to climate change become major hindrances in providing adequate food on the table, and at the same time ensuring sustainable development. Although there are countless challenges plaguing our feat, tools to overcome them are also within reach. One of these tools is pushing the agritourism bandwagon forward.

"Agritourism is an important ingredient in rural development," exclaimed Serrano as he closed his keynote address.

To date, the industry of agritourism is at its infancy stage. But initiatives such as this conference are well on its way to bringing practitioners, regulators, interest groups, and academe representatives together and tighten the agritourism community. And with a House Bill 1808 on "Agri-Tourism Promotion Act of 2010" on its way to strengthen the industry, the country just might be able to arrive as a food self-sufficient country in 2013. (Zuellen B. Reynoso)

Seventh-Day Adventist commits support to government's nat'l soybean program



PHOTO: EAQUINO

Representatives from the Seventh-Day Adventist showed interest in the production of soybean in the Philippines, and thus committed to support the government's soybean program. This was highlighted during the "Soybean Technical Working Group Meeting" held on 7 June 2012 at the Bureau of Agricultural Research (BAR).

Pastor Nelson de Chavez of the North Philippine Union Conference (NPUC) of the Seventh-Day Adventist shared possible lands being coordinated/owned by the group that could possibly be planted with soybean. "We are willing to help and can allot a few hectares for the soybean program," he said.

The Adventist University of the Philippines, based in Cavite, is willing to provide up to 30 hectares of their land for seed production. Other Possible techno-demo areas are in Florida Blanca, Pampanga, in Naga, and Palawan.

To date, the Department of Agriculture (DA) has provided soybean for seed production and are already planted in 1) Santiago, Isabela; 2) Busilak, Bayombong, Nueva Vizcaya; 3) Naga View College in Bicol; and 4) Alicia, Isabela—all of which are owned by the Seventh-Day Adventist.

The Seventh-Day Adventist is a group that promotes healthy habits/lifestyle to their community and encourages consumption of vegetables.

As per agreement, Mr. de Chavez will assist in determining and

developing the available land for soybean. Likewise, planning and programming of soybean activities in their area which includes members and non-members. Seventh-Day Adventist will also be included as member of the Soybean TWG being the private sector partner of the program.

Mr. Ricardo Navis, a member of Seventh-Day Adventist, is also the founder of Makabagong Gabay sa Kalusugan (MGSK) processing food products out of soybean. These include soymilk, soy sauce, soy coffee, *taho*, tofu, and vegetables noodles. BAR provided support in the product development of these products.



(Left) Mr. Ricardo Navis, a member of Seventh-Day Adventist, is also the founder of Makabagong Gabay sa Kalusugan (MGSK) processing food products out of soybean. (Right) Pastor Nelson de Chavez of the North Philippine Union Conference (NPUC) of the Seventh-Day Adventist. PHOTOS: EAQUINO

In 2010, DA, through the High Value Crops Development Program (HVCDP) and BAR, spearheaded the crafting of the Philippine Soybean Roadmap. The roadmap aims to build a strong community-based sustainable production of the commodity and establish a viable soybean processing industry thru public-private partnership initiatives. BAR serves as the focal unit in the conduct of various activities under the program.

Since then, through the active participation and commitment of the regional fields units and selected attached of agencies and staff bureaus of the Department, varietal testings were conducted in the different regions in the country.

As of February 2012, a total of 53 technology demonstration trials on organic soybean production were conducted in the 16 producing regions and made available to growers 75 tons certified seeds that supported planting of 969 hectares. Remaining targeted areas will be planted to meet up the targeted 1,100 hectares for 2012. (Ma. Eloisa H. Aquino)



BAR intensifies support to Queen pineapple industry



Dr. Nicomedes P. Eleazar, (right) BAR director with Mr. Mario M. Espeso (2nd from right), general manager of LPMPC and other LPMPC officers and members who assisted the Bureau chief in his visit to the cooperative. PHOTO: OD

Located at the center and the most populous town in Camarines Norte, the municipality of Labo serves as the agricultural center and a potential investment destination and center for business and trades. Agriculture remains the leading source of livelihood among the residents of Labo with an area that is mainly devoted to agricultural crop production.

A well-known crop from Labo is "Queen" pineapple (*Ananas comusus cv. "Queen"*). With a total of 2,400 hectares in the 12 towns of the province's land area devoted for the production of the "Queen" or Formosa cultivar, several institutions sought to find ways to exploit the Queen's potential.

The Labo Progressive Multi-Purpose Cooperative (LPMCP) is among the institutions in Labo, Camarines Norte that promotes livelihood projects on pineapple production, pineapple products and by-products processing, and integrated leaves processing. Among its missions is to provide more employment and create more innovative products that will respond to the needs of its members and the international market.

Geared towards supporting the pineapple farmer growers in the

municipality of Labo and the province as a whole, the LPMPC, in collaboration with the Department of Agriculture Regional Field Unit 5 – Bicol Integrated Agricultural Research Center (BIARC), implemented the project titled, "Enhancing Competitiveness of the Queen Pineapple in the Bicol Region" under Bureau of Agricultural Research's National Technology Commercialization Program (NTCP).

In recognition to LPMCP's significant accomplishments and contributions, BAR Director Nicomedes P. Eleazar visited Labo Progressive Multi-Purpose Cooperative (LPMPC) on 7 June 2012 to extend further support particularly in the processing and value-adding of the crop. Assisting him in the visit was Mr. Mario M. Espeso, LPMPC general manager.

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Products from Queen pineapple

PHOTOS: OD

SSNM National Review focuses on increasing white corn production



Participants, resource speakers, proponents, and guests during the "SSNM 2011-2012 Dry Season and Regional Presentation of 2013 White Corn Research Proposals" held in Baguio City. PHOTO: ABRION

To enable farmers to determine and adjust fertilizer application specific to the nutrient needs of the corn, the Site-Specific Nutrient Management for Maize (SSNM) was developed. This was made possible through collaborations among agencies including the Bureau of Soils and Water Management (BSWM), University of the Philippines Los Baños (UPLB), and the International Plant Nutrition Institute (IPNI). Coordination and funding support was made possible through the Department of Agriculture - Bureau of Agricultural Research (DA-BAR) and DA-National Corn Program.

With the promising results of SSNM for yellow corn, it is now being applied for another variety, the white corn. Pursuant to this, a National Review for SSNM 2011-2012 Dry Season and Regional Presentation of 2013 White Corn Research Proposals was held on 19-22 June 2012 in Baguio City. The activity aimed to: 1) give updates on corn RDE program implementation of each region; 2) assess the results and accomplishments of 2011-2012 SSNM dry season on-farm trials; 3) raise out issues and concerns for

further improvement of SSNM implementation; 4) review regional corn R&D proposals for 2012-2013; and 5) conduct a training-workshop on Nutrient Expert for Hybrid Maize for new SSNM focal persons.

BAR Director Nicomedes P. Eleazar stressed the importance of SSNM in helping the farmers increase their crop yield. "Results have shown that by improving crop and nutrient management, a potential increase in yield can be achieved, with as much as 31 percent greater than the yield achieved with farmers' current fertilizer practices," he said. He furthered that SSNM for white corn has a high potential to increase the crop's production which can contribute greatly in the attainment of the goal of the country of being food self-sufficient. Dr. Eleazar emphasized that the activity will not only provide valuable information for the improvement of the trials for the second year, but it will also serve as a basis in the formulation of policy recommendations towards a more standardized and efficient conduct and implementation of researches on white corn.

Mr. Milo delos Reyes of the National Corn Program also gave a message and talked about the

significance of corn in the agriculture sector. He also discussed the Philippines' Corn Industry and highlighted the corn production of the different regions in the country. According to him, SSNM can play a vital role in increasing the yield of white corn in the country since this variety has lower average yield than that of the yellow corn, hence it should be given attention and priority. To further promote white corn consumption, he encouraged each region to always include the slogan "*Kumain ng puting mais, iwas sa diabetes*" on their white corn RDE undertakings.

Dr. Apolonio Ocampo, SSNM project leader from the University of the Philippines Los Baños (UPLB), briefly explained SSNM Implementation Protocol for white corn which includes the criteria in selecting project sites and farmer cooperators, general crop management, among others. This will promote a more uniform implementation of the projects. He also presented the initial findings of the "SSNM Analysis Across Sites and Adjustments of SSNM Prototype for Wet Season 2012" where it was found out that yield with SSNM was higher than the yield in farmer's



Dr. Nicomedes P. Eleazar, DA-BAR director, and Mr. Milo delos Reyes, head secretariat of the DA-National Corn Program, delivering their messages for the activity. PHOTOS: ABRION

field.

Professor Proceso Manguiat from UPLB also presented the award-winning project "Adaptation and Dissemination of Newly Developed Improved White Corn Varieties as Source of Staple Food," with Dr. Romeo Labios as project leader. Generally, it intended to increase the crop's productivity, yield and farmers' income in the project area through participatory varietal selection (PVS) approach and technology innovation systems.

Each region presented their respective SSNM 2011-2012 DS results to give updates on the status of their current projects as well as what have been accomplished so far. They also participated in the workshop where they identified and came up with a list of 2012-2013 corn research proposals for 2013 funding. Mr. Milo delos Reyes, RTD Romulo Palcon from Region 11, Dr. Apolonio Ocampo and Professor Proceso Manguiat served as the

evaluators and provided recommendations to enhance the projects and the proposals.

After the presentations of the results and the proposals, a training-workshop on Nutrient Expert for Hybrid Maize was conducted to equip new SSNM focal persons with knowledge on how to utilize the software. The Nutrient Expert is a "computer-based decision support tool" which will assist farmers in formulating fertilizer guidelines and strategies to enhance their farming activities. Ms. Luisa

Fulgueras from Region 6 served as the resource speaker for the session.

Concluding the event was BAR Assistant Director Teodoro S. Solsoloy who expressed his gratitude to everyone for their participation and encouraged the attendees to continue working together to improve corn production in the country. (Anne Camille B. Brion)



A training-workshop is conducted to equip new SSNM focal persons with knowledge on how to utilize the Nutrient Expert for Hybrid Maize, a software which will help farmers in formulating fertilizer guidelines and strategies to enhance their farming activities. PHOTOS: ABRION