Cont...

IDG projects in various...from page 7

Experiment Station; Southern Cebu Farming Systems R&D Station; and BFAR-Regional Fisheries Research and Development Center (RFRDC) VII.

In this monitoring, the team observed that most stations are well maintained and fully utilized. To further strengthen the capabilities of some stations that did not yet receive funding from the bureau, they suggested that the centers submit an IDG proposal.

Monitoring of Regions 11 and 12 was held in July. Sites visited included the BFAR-RFRDC XI; University of Southeastern Philippines Davao and Tagum City campuses; BPI-Davao National Crop Research and Development Center; DA-Southern Mindanao Integrated Agricultural Research Center (SMIARC); DA-Central Mindanao Integrated Agricultural Research Center (CEMIARC); University of Southern Mindanao; and Mindanao State University General Santos City campus.

With the upgrading of these research centers in the country, it has become possible for researchers to conduct more relevant and appropriate experiments and generate technologies that will benefit the farmers and fisherfolk. ### *(Jacob Anderson C. Sanchez)*

BAR participates...from page 4

more tips on organizing data more effectively, particularly on the difference between inductive or from general to specific kind of writing, and deductive or from specific to general writing. Through Skype, Simone Kathrin Kriesemer from the Food Security Center (FSC) in Germany presented a structure of factsheet, a knowledge-sharing product which uses the deductive form of writing.

As a major output of the activity, participants produced their own technology factsheets based on their research/case studies where they applied all the concepts they learned during the duration of the activity. Factsheet is a single sheet of paper which includes important facts about an issue, usually intended to encourage a reader to take an action.

At the end of the three-day writeshop, sharing and reflection among the participants took place. Most of them said that they have learned a lot mostly on writing techniques, and that the knowledge and skills they acquired during the writeshop will become very useful in their line of work.

The writeshop provided a good venue for both researchers and communication officers to write more effectively and clearly for the target audience. This kind of activity would be helpful to people involved and working in research and development institutions to help farmers and fisherfolk become knowledgeable on various agricultural technologies. ### *(Mara Shyn M. Valdeabella and Anne Camille B. Brion)*

Organic agriculture experts...from page 10

Mr. Joell Lales, OIC-head of BAR's Planning and Project Development Division (PPDD) presented the latest research findings on OA. He said, under Section 20 of RA10068, BAR has been assigned to lead and coordinate research, development and extension (RD&E) plans and programs. Mr. Lales said among the on-going R&D initiatives include the compilation of available technologies, tools and practices acceptable in organic farming activities which the bureau is currently undertaking in coordination with State Colleges and Universities (SCUs), DA-Regional Field Units (RFUs), bureaus and attached agencies.

Highlights of the congress include the keynote address as delivered by Hon. Grace Poe Llamanares representing President Benigno Simeon Aquino III. In the President's message, she emphasized the promotion and the greater adoption of organic agriculture in the country as well as penetrating large market interventions. Senator Francis Pangilinan, chairman of the Senate Committee on Agriculture and Food, said during the congress that "a dream can be complete, tangible, sustainable and in the long run OA is profitable".

Other highlights included the 1) recognition of Mayor Nacianceno M. Pacalioga of the Municipality of Dumingag, Zamboanga del Sur for winning the "One World Award 2012" by Rapunzel and International Federation of Organic Agriculture Movements (IFOAM) in Germany, and Costales Farm for winning the Gawad Saka's Most Outstanding Organic Farmer; 2) launching of the 2012 Organic Directory; 3) launching of the Official OA Logo; 4) and awarding of certificate to the winners. ### *(Patrick Raymund A. Lesaca)*

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PhiRARDEP Review and Planning Workshop held;

experts and researchers capacitated on impact assessment

A year after the establishment of the Philippine Rainfed Agriculture Research, Development and Extension Program (PhiRARDEP), an initiative borne by the collaboration of the Philippine Department of Agriculture-High Value Crops Development Program (DA-HVCDP), Bureau of Agricultural Research (BAR), and the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), the "Capacity Strengthening, Review and Planning Workshop for PhiRARDEP" was held to convene experts, officials, and agricultural specialists from different regions of the country.

Gracing the event are (L-R): Dr. Myer Mula (ICRISAT), Dr. Rosanna Mula (ICRISAT), Dr. Nicomedes P. Eleazar (BAR), Dr. William D. Dar (ICRISAT), and Dr. Cynthia Bantilan (ICRISAT). PHOTO: LPADILLA

Spearheaded by the BAR and ICRISAT, the national event aimed to evaluate, assess and improve PhiRARDEP in a holistic approach which involves the review of previous efforts done and accomplishments achieved since 2011, capacitating of key players on impact assessment for the further direction of the program, and planning for and drafting of the PhiRARDEP roadmap.

"Knowing the vast potential of the rainfed areas to contribute to food security, PhiRARDEP is seen to lay the foundation for establishing a unified national agenda for rainfed agriculture in which the RD&E sector and other concerned stakeholders will be able to significantly contribute by making innovations, generating and developing technologies, and formulating policies appropriate for the rainfed environment. To this end, the strategies, results, and impacts of the PhiRARDEP will be taken into consideration in drawing up the overall DA framework for the achievement of sustainable agricultural growth," said Dr. Nicomedes P. Eleazar, director of BAR, in his welcome remarks.

Held in Tagaytay City on 19-23 November 2012, the event was attended by participants from DA-Regional Integrated Agricultural Research Centers (RIARCs), DA-Research Outreach Stations (ROS), DA-attached agencies and staff bureaus, DA-Regional Field Units (RFUs), state universities and colleges (SUCs), and partner R&D agencies.

Meanhwile, ICRISAT Director General William D. Dar, in his opening message, emphasized the distortion of policies that led to the underinvestment in the many rainfed areas in the Philippines. To address this, Dr. Dar elucidated that some initiatives and efforts targeted on irrigated investments should be shifted to rainfed investments.

Impact assessment as component of PhiRARDEP

A process of identifying, delineating and assessing the objectives, challenges, opportunities, activities, and impacts of an initiative for better understanding the cause-and-effect of every action taken, impact assessment (IA) proves its purpose as an integral part of any research and development (R&D) initiative that aims for effectiveness and efficiency.

Since rainfed agriculture covers three-fourths of the country's 10 million hectares of arable lands, it was realized

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IN THIS ISSUE...

The participants, together with Dr. Bantilan (leftmost), visualize and form the impact pathway using metacards. PHOTO: LPADILLA

that PhiRARDEP should be more vigorous to achieve its goal of optimum productivity amidst persistent climatic disturbances.

Hence, the goal of institutionalizing impact assessment as a vital component of PhiRARDEP was anticipated through the inclusion of a short course on impact assessment in the event. Through learning activities focusing on impact pathway, evaluation principles, impact culture, good IA practice, and the framework and adoption of IA, researchers in the field of rainfed agriculture were capacitated on how to properly conduct such process. Lectures on quantitative analysis and methods proving the benefits of IA and a workshop on integrating IA with research for development (R4D) projects on rainfed agriculture were conducted alongside.

Serving as key resource persons were ICRISAT experts: Dr. Cynthia S. Bantilan, research program director and Dr. Rosana Mula, training coordinator.

"The benefits of institutionalizing impact culture include: 1) well-planned projects that demonstrate a logically cause-and-effect chain from inputs through to impacts, 2) staff with the ability to monitor project progress and respond accordingly, 3) effective communication framework to report progress and final results, 4) body of evidence that describes results, what worked, what didn't and why, 5) increased likelihood that goals will be reached, and 6) increased likelihood of funding," enumerated Dr. Bantilan during her lecture on impact culture. Meanwhile, up-scaling and scaling-out of impact assessment were discussed by Dr. Mula. "Up-scaling is making it more big while scaling-out is bringing and spreading it to other places," she said.

Review and planning workshop

For the purpose of leveling-off, a presentation of PhiRARDEP situationer report was laid out by Dr. Mula together with Ms. Maureen G. Mangaring, technical saff from the Planning and Project Development Division (PPDD) of BAR.

"There are thirty rainfed-related projects for 2011-2012 approved and funded by BAR. These were conducted in partnership with RIARCs, DA-attached agencies, and SUCs," reported Ms. Mangaring. Afterwards, Dr. Mula discussed the in-country trainings conducted in five SUCs and the eight scientific visits and training activities organized by ICRISAT in the Philippines.

Before the planning and review workshop began, Dr. Dar gave a brief message about his insights about the so-called rainfed resilience which highlights three aspects of building resilience: 1) Withstand, 2) Adapt, and 3) Recover (WAR). "I believe that we will continue to develop this WAR paradigm to achieve resilience…Sustainability is not enough especially if the resources are already gone and resilience is the key in order to sustain our resources. Indeed, it is really important for the Philippine government to harness and optimize the rainfed areas," said Dr. Dar.

The workshop was initiated by Mr. Joell Lales, OIC-head of BAR-PPDD, presenting the PhiRARDEP Framework and Action Agenda. The program framework includes factors and

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This publication provides regular updates on DA-BAR's activities as the country's national coordinator for agriculture and fisheries R&D. It also highlights features and news articles concerning NaRDSAF-member institutions.

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Dr. Calub (rightmost) facilitates the activity on defining what PRA is. PHOTO: DBATTAD

also emphasized that CPAR has been recognized as a successful RD&E program. In the proposed Philippine Rural Development Program provided by the World Bank, an assessment done by a group of consultants showed that CPAR was among the programs which acquired good standings especially in terms of its implementation strategies and means of technology verification. He was truly happy of the recognition accorded to CPAR. *"Nakakataba ng puso. This truly shows that we are causing a good effect on the lives of our farmers and fishers,"* he added.

Dr. Blesilda Calub of UPLB, a prominent PRA practitioner, and Ms. Rose Mary Aquino, a member of the bureau's Technical Working Group, served as the resource speakers of the activity. Together with the rest of the technical advisers of BAR, they facilitated the five-day workshop, sharing all of their knowledge and expertise in conducting a PRA.

The participants engaged into various workshop activities, capturing all concepts, tools, processes, and implementation strategies that encompass PRA. They were tasked to assess themselves on their familiarity with PRA: what it is, who does it, why it is done, when and where it is done, so that they share a common understanding of the PRA process. The participants marked such a positive reception over the PRA tools and its implementation process through role playing activities involving PRA's actual execution. It also included action planning activities and packaging of their actual PRA results into log frame leading to a CPAR proposal. They were also given points on the different PRA facilitation skills to gear them up in conducting PRA.

The trained CPAR implementers will then have to echo the experiences and knowledge they have acquired through this workshop when they go back to their respective regions. ###

CPAR was among the programs which acquired good standings especially in terms of its implementation strategies and means of technology verification.

Embracing the participatory nature of CPAR

PHOTOS and STORY BY:
DARYL LOU A. BATTAD

In the field of research and development, participatory approach is becoming an innovative approach. Research institutions and community-led organizations have been effectively utilizing this method in the conduct and implementation of different R&D activities.

The Bureau of Agricultural Research (BAR) adheres to the principles of participation. The Community-based Participatory Action Research (CPAR), one of its banner programs, continues to embrace the participatory nature of the program.

How *participatory* is participatory in CPAR

The CPAR is designed to emphasize the involvement of the community, especially of farmers and fisherfolk, leading to dynamic and responsive research outputs. BAR advocates that communities can best determine their needs for their social transformation and describe their role in society as well. The CPAR program is now becoming a vehicle for community development and empowerment. Through the years, BAR-supported and -funded projects of various farming and fishing communities have continued to serve as models or platforms for such development.

In the context of participation per se, assessing the rural environment (countryside) is imperative to ascertain the specific needs of the communities that would ultimately lead to sustainable development. Specific to this approach is a method also known as the Participatory Rural Appraisal (PRA). The PRA as defined by Peter Oakley in his book *The Practice of Participation in Rural Development* is an active process by which beneficiaries or client groups influence the direction and execution of development projects with a view to enhance the well-being in terms of income, personal growth, self reliance or other values they cherish.

The PRA is indeed a very important tool in the whole CPAR process --- as this is where the community establishes substantial participation towards their betterment.

Strengthening participatory research

The results of the CPAR levelling-off series conducted by BAR in Luzon, Visayas, and Mindanao early this year revealed that the most pressing need determined by majority of the CPAR implementers is the lack of proper training on PRA. And in response, the bureau recently conducted the national workshop on PRA participated by all CPAR practitioners throughout the country.

Dr. Nicomedes P. Eleazar, director of BAR, shared how the bureau is coordinating and implementing researches on agriculture and fisheries, and its efforts in contributing to the progress of all R&D activities of the Department of Agriculture (DA). He

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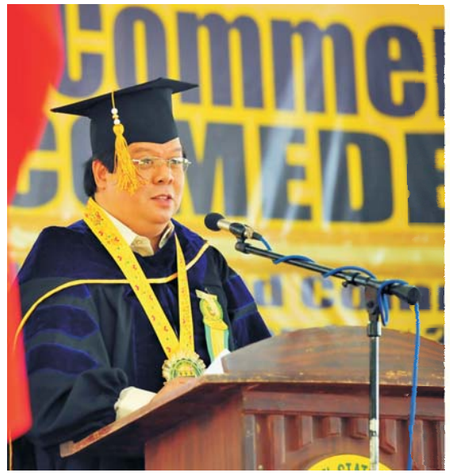
Eleazar keynotes CLSU Mid-Year Commencement Exercises

Dr. Nicomedes P. Eleazar, director of Bureau of Agricultural Research (BAR), served as the honored guest and speaker during the Central Luzon State University (CLSU) 22nd Mid-Year Commencement Exercises on 23 November 2012. Dr. Eleazar is an alumnus of CLSU wherein he earned his doctor's degree in Rural Development. The graduates were joined by their proud parents, faculty, and members of the administrative council and board of regents.

Dir. Eleazar, in his speech, recalled some personal and professional experiences he had while taking his doctorate degree at CLSU in 2009. He also emphasized how proud he was being an alumnus in this particular university.

"As the head of the Department of Agriculture - Bureau of Agricultural Research (DA-BAR), I know that I still have a lot to learn and CLSU has guided me along the way and has helped me in handling my responsibilities, understanding my authority, and working with different kinds of people in and outside the Bureau." Eleazar stressed.



> "I know that I still have a lot to learn and CLSU has guided me along the way and has helped me in handling my responsibilities, understanding my authority, and working with different kinds of people in and outside the Bureau."

The director also highlighted in his speech the strong partnership that the bureau and the university has shared together and forged through the years. "CLSU has been one of the distinguished partner-institutions which continuously support the R&D endeavors of the bureau. The expertise and resources of this university, I firmly believe, are all geared towards the development of the agriculture and fisheries sector".

BAR has supported and funded a number of projects and research activities of CLSU. Among them include basic and applied research grants and the Research and Development (R&D) Facilities awarded by the bureau to the university.

Dr. Ruben C. Sevilleja, president of CLSU, expressed his gratitude to Dr. Eleazar for gracing the occasion and reciprocated the accolade attributed by Dir. Eleazar to the university. Also present during the event was Dr. Fortunato A. Battad, Sr., former CLSU president.

"Let us not forget to thank and appreciate the efforts made by our parents for sending us to this premier learning institution, to our Alma Mater for the formative years, guidance and nuggets of knowledge received, and to our country that we may be of true service to the Filipino people. Share your expertise, be it in research, teaching profession, in entrepreneurial activities, working in corporations or in government. We can all do this by pooling our efforts together towards attaining the vision and mission of a prosperous nation," concluded Dr. Eleazar. ### *(Mara Shyn M. Valdeabella)*

BAR participates SATNET-led writeshop on translating research into practice

The "Network for Knowledge Transfer on Sustainable Agricultural Technologies and Improved Market Linkages in South and Southeast Asia (SATNET Asia)," a technical cooperation among the United Nations - Centre for Alleviation of Poverty through Sustainable Agriculture (UN-CAPSA), United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and the European Union, conducted the *Writeshop on translating research findings into knowledge accessible to extension workers and farmers* from 12 to 14 November 2012 at the CAPSA office in Bogor, Indonesia.

(Front row, L-R) Dr. Oswald Marbun of the IAARD, Dr. Katinka Weinberger of CAPSA, and Ms. Martina Spisiakova also from CAPSA, together with the participants. PHOTO: CAPSA

In attendance were 19 participants from Southeast Asian countries including Cambodia, Lao PDR, Indonesia, Myanmar, and the Philippines. Representing the Philippines were staff members from the Department of Agriculture-Bureau of Agricultural Research: Ms. Mara Shyn M. Valdeabella, executive assistant for communications, Office of the Director and Ms. Anne Camille B. Brion, information officer III, Applied Communications Division.

As Dr. Katinka Weinberger, director of UN-CAPSA opened the activity on the first day, she emphasized the existing gap between research producers and research users because of the "ineffective knowledge transfer from those who know to those who do not know". This idea was seconded by Ms. Martina Spisiakova, CAPSA's Knowledge Management Officer and facilitator to the writeshop. She furthered that this "lack of translational development" or the need for translation from research to practice and vice versa is a major factor for low agricultural productivity. Hence, the workshop was conducted to enhance the capacity of research organizations in disseminating research findings to target audience.

Dr. Oswald Marbun from the Assessment Institute for Agricultural Technology of the Indonesian Agency for Agricultural Research and Development (IAARD) enumerated the factors that create the gap and shared their institution's practices in bridging this gap. Producing communication materials is one of the ways on how they are transferring the understanding of technology application to farmers. He noted that while brochures are more applicable to extension workers, farmers would appreciate materials with more pictures. He added that these kinds of materials will be more effective if accompanied with practical application/demonstration of agricultural technologies.

Writing to express and not to impress

Ms. Spisiakova discussed about reader-centered writing. According to her, writing clear, simple, and concise messages for the target audience saves both the reader's and writer's time. It also lets the writer get his/her message across more often and more easily. Because this kind of writing makes the readers feel that the text is aimed directly at them, it can give good reasons for them to take action.

To make the participants more involved in the writeshop, she and her team employed several innovative strategies. One of these is an activity on role playing. Through the case study on the experience of mini-hatcheries technology in Bangladesh, the participants assumed the roles of researchers, extensionists, and policy-makers. They tried to think from these three points of view in identifying key knowledge needs and intended actions based on the evidences presented on the case. The activity led to the realization that a dialogue and consensus with all concerned stakeholders involved in a certain project or program is needed for a more effective transfer of research findings into practice.

The session on "Making complex documents simple" taught the participants how to keep sentences short and simplify complex documents. The lecture on writing effective summaries helped them identify key messages from long and complex documents and translate them into concise, accurate, objective, and independent pieces of information.

Meanwhile, the session on organizing ideas to produce "knowledge-sharing products" provided

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Good Practice Options...from page 16

per ha to 3.12 tons per ha. The increase of 1.14 tons per ha when converted to cash was equivalent to13,700 pesos. However, it was observed by the farmers that seedbed preparation takes longer (25-30 days before transplanting) in using salt-tolerant variety. This is why in the study, it was recommended by the researchers to use an early-maturing saline-tolerant variety such as the NSIC Rc 188 as an alternative.

To withstand the above normal rainfall condition is the purpose of the third GPO which was the use of submergence-tolerant rice variety. NSIC Rc 194 was recommended for its characteristics of having high milling recovery at 65 percent, good eating quality, and better adaptation under the rainy and flood prone conditions. There was an additional 1700 kgs per cropping season or an average income of 20,400 pesos per ha which was 38 percent higher than existing farmers practice using this GPO.

The fourth GPO tested and validated was the timing of planting and rice ratooning. It can be adopted by farmers who have less capital while also avoiding high production loss during the typhoon months from October to December (2nd cropping). The use of short maturing variety like NSIC Rc 158 with good ratooning ability was recommended. An increment in rice yield of 580 kgs per ha within 45 days can be added to the income of the farmers.

Lastly, the GPO of rice-duck farming was recommended for typhoon-prone, flood-prone, and salt-affected areas. Aside from the money earning potentials of duck by selling its eggs, it can also help in improving the seedling growth by eating the pests such as insects and weeds.

Being the country always on the forefront of hazards, the agriculture sector needs adaptation strategies that will protect the whole food supply chain from being disturbed. This study answered this need especially on ensuring that rice productivity will not dwindle even in times of calamities. Also, the simplicity of the GPOs recommended bring hope to the small hold farmers that with right technologies, resiliency against disaster hold true even without additional cost. ###

Vermiculite...from page 13

of bringing consciousness and active participation of the primary and secondary public school children in the "Green Movement". The research project also intends to promote proper nutrition among the youth in CALABARZON areas. Since Tree Care is also advocating sustainable agriculture, they became the innovators in the local processing of vermiculite to make the material locally available in the market at a competitive price. The implementing agency also conducted various tests to ensure its efficacy in the culture of various plants such as vegetables, herbs and ornamentals.

Just recently, Tree Care conducted a seminar on the Utilization of Vermiculite-Based Low-Spaced Soilless Growing Medium in the Promotion of Urban Gardening to train selected primary and secondary public school teacher- trainors from the pilot sites in the proper care and maintenance of developed structural and container modules with vermiculite-based media. The participants came from selected schools in CALABARZON namely: 1) Los Baños National High School representing Laguna, 2) San Pascual Central School, 3) San Pascual National High School from Batangas Province, 4) Bliss Elementary School, and 5) Lucena City National High School from Quezon Province. The training program was also attended by Dr. Aniano Ogayon, Officer-in-Charge, Schools Division Superintendent of Lucena City and Mr. Sabino Abrigunda, Education Program Supervisor I representing Department of Education-Batangas Province.

The teacher- trainors and principals were taught on how to prepare and use the proper container, combine the correct mixture of vermiculite, sand and coir dust, and appropriate seedling handling and maintenance. The participants have seen the different kinds of planting containers being used such as 1.5 liter soft drink PET bottles, bamboo, basin, and rectangular earth pot. Different structural schemes were also showcased such as A-frame, straight layered type, bamboo stand type, cage type and vertical ladderized type at the parking lot of MADECOR Building, Los Banos, Laguna where the Tree Care Office is located.

Future Plans

According to Mr. Louie Cabrera, component leader for training, they will conduct the same training program next year for the second batch of participants from Cavite, Rizal and Laguna (Primary School). The entire team would also monitor the first batch of school beneficiaries' Urban Garden next year. In fact, the first batch of participants will coordinate with other nearby schools to promote the utilization of vermiculite in Urban Gardening.

Through this initiative, this new technology will penetrate through the household, and hopefully to the entire community in order for them to have new source of income, to maintain food security within the community, to promote proper nutrition among children and most of all, to protect and save the environment by implementing the 3Rs (Reduce, Reuse, Recycle).

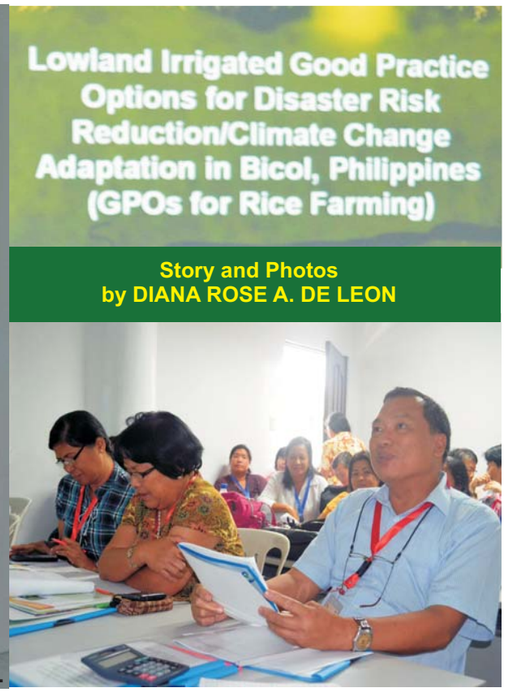
In addition, Tree Care will also improve and develop their vermiculite exfoliation facility to meet the expected demands for the product. In an effort to successfully accomplish the project, Mr. Elpidio Rosario, project leader, created his own team from Tree Care, namely: Mr. Patrick M. Rocamora, component leader for technical; Mr. Louie C. Cabrera, component leader for training; and Ms. Juvy C. Rocamora, Mr. Joselito C. Soltura, Ms. Miladie Peñaloza-Peñarubia and Mr. Joselito A. Lawas as project assistants. ###

This article is based on the project proposal entitled "Commercialization of Vermiculite-based Low Spaced Soiless Growing Medium in the Promotion of Urban Gardening for Primary and Secondary Public Schools" by proponent Dr. Elpidio L. Rosario from Tree Care. For more information please contact anyone from the Project Team at (049) 536-0054

Reference:
www.wikipedia.com

Good Practice Options for rice give new hope to BICOL FARMERS

DA-BIARC manager Luz R. Marcelino explains the significant results of the study to the panel of judges during the 24th NRS.



Story and Photos by DIANA ROSE A. DE LEON

Agriculture is and will always be the most heavily damaged sector whenever a country has experienced typhoons, floods, and droughts. This is an inconvenient hazard in which the country cannot escape from particularly when the damage has caused millions of pesos worth of crops and infrastructures.

After the onslaught of strong typhoon *Reming*, the Bicol region suffered the hardest blow affecting all of its six provinces. More or less than 19,000 hectares of rice fields were destroyed. With support coming from the Food and Agriculture Organization (FAO), this prompted the Department of Agriculture (DA) to conduct an overall assessment and design a rehabilitation plan for agriculture and livelihood in the affected areas.

The results of the assessment and the disaster-risk reduction strategies and coping mechanisms done were presented during the 24th National Research Symposium (NRS) organized by the Bureau of Agricultural Research (BAR). The study titled, "*Lowland Irrigated Good Practice Options (GPOs) for Disaster Risk Reduction/Climate Change Adaptation in Bicol (GPOs for Rice Farming)*" bagged the Agriculture and Fishery Modernization Act Best R&D Paper under the TA/TV agriculture category. The winning paper was presented by Ms. Luz R. Marcelino, co-author and manager of DA-Bicol Integrated Agricultural Research Center (DA-BIARC).

Increasing resiliency against disasters

Results of the study showed that Albay, Camarines Sur, and Sorsogon were observed to be very vulnerable to typhoons, strong winds, flooding and soil salinity. This is why the 20 Good Practice Options (GPOs) identified were tested within these provinces. Out of the 20 GPOs, 5 potential GPOs were found to be highly suitable for lowland irrigated such as these three provinces.

The first GPO tested was the use of early-maturing rice varieties like the NSIC Rc 120 and IR-60. According to Marcelino, this GPO was highly recommended in areas wherein there were frequent typhoons and also lessened the risk of the rice to be exposed to impending calamities. The early-maturing varieties can be harvested 92 days after transplanting in comparison to the locally used variety, *Binatang*, which can be harvested at 108 days. Based on the field testing done using this GPO in those three provinces, despite being harvested early, the produced yield was comparable and in some point exceed with that of the *Binatang*.

There was an increment in yield of 670 kilograms (kgs) per hectare (ha) and when converted to cash was equivalent to 8,440 pesos.

Using the salt-tolerant variety, farmers yield increased from 1.95 tons

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2012 Gawad Saka Outstanding Agricultural Scientist, Researcher named

Agriculture Secretary Proceso J. Alcala represented President Benigno S. Aquino III in honoring the 2012 Gawad Saka national winners. The awarding ceremony was held on 13 November 2012 at the PhilRice, Science City of Muñoz in Nueva Ecija where the formal launching of the year 2013 as the National Year of Rice (NYR) was also done.

Dr. Mudjekeewis D. Santos, a DOST-conferred Scientist I, bagged the national Gawad Saka Outstanding Agricultural Scientist (OAS) for contributing to the country's efforts of addressing food security and safety particularly in the aquaculture and fisheries management.

Meanwhile, Mr. Ambrosio Raul R. Alfiler, an entomology expert, was declared national Outstanding Agricultural Researcher (OAR) for his pioneering and successful researches on coconut pest management in the country.

The winners in the two categories received P1 million (P900,000 as project grant and P100,000 cash) each courtesy of BAR.

Gawad Saka is an annual event of DA in cooperation with other government institutions, non-government organizations and the private sector. Initiated in 1970, the Gawad Saka aims to give due recognition and to pay tribute to dedicated individuals and institutions whose exemplary accomplishments in their respective fields of endeavor and contribution in the country's agricultural development are deemed worthy of emulation. It is a tribute to farmers, fisherfolk, and institutions in recognition of their agricultural contribution towards a modernized and equitable agriculture.

Prior to the announcement of the winner, there were seven nominees for Gawad Saka OAS while 12 for the OAR.

Following a series of desk and field validation, a National Technical Committee (NTC) deliberation was held to validate and evaluate the documented credentials of the nominees. This was chaired by BAR Director Nicomedes P. Eleazar and co-chaired by Assistant Director Teodoro S. Solsoloy. Top three from each category emerged as finalists after attaining the minimum required points of 85 percent for OAS and 80 percent for OAR.


Dr. Santos is this year's Gawad Saka Outstanding Agricultural Scientist

2012 Gawad Saka Outstanding Agricultural Researcher Mr. Alfiler

Other finalists that vied for the Outstanding Agricultural Scientist were: Dr. Roel R. Suralta of the Philippine Rice Research Institute (PhilRice) and Dr. Waren N. Baticados of the University of the Philippines Los Baños (UPLB).

Meanwhile, the other finalists for the Outstanding Agricultural Researcher were: Dr. Estela C. Taño of the DA-Regional Field Unit IV-A Quezon Agricultural Experiment Station (QAES), and Ms. Avelita M. Rosales of the DA-Regional Field Unit IV-A Lipa Agricultural Experiment Station (LAES). ### *(Jacob Anderson C. Sanchez)*

PhiRARDEP Review...from page 2

elements such as extension, credit, farmer community, research support, water harvesting management, soil/water management, livestock, rainfed farming system, crops, and market.

Researchable areas under the four components of the PhiRARDEP action agenda were also discussed. Among the areas identified were: 1) in-country/study visit/educational field tours on watershed management [*Capacity Building, Communication and Social Mobilization*], 2) upscaling/replication of community-based watershed management model and livelihood opportunities in selected sites [*Participatory Watershed Management*], 3) biophysical characterization of rainfed areas and socioeconomic and cultural characterization of farmers/rainfed areas [*Rainfed Farming System*], and 4) development of policies in support of the marketing of newly introduced crop varieties (pigeon pea, peanut, cowpea, sweet potato, adlai, etc.) [*Strategic Social Science and Policy Research*].

During the workshop, selected rainfed agriculture projects in the Philippines were reviewed and evaluated. Evaluators of the review were Dr. Heraldo Layaoen of the Mariano Marcos State University (MMSU), Dr. Teotimo Aganon of the Central Luzon State University (CLSU), Dr. Rex Navarro of ICRISAT, and Dr. Luis Rey Velasco of UPLB.

Meanwhile, the drafting of the PhiRARDEP roadmap, which aimed to update the program's framework and action agenda, was facilitated by BAR technical staff from PPDD, Project Monitoring and Evaluation Division (PMED), and Technology Commercialization Division (TCD).

Participants were divided into four groups according to the four components of the PhiRARDEP. Each group assessed the activities determined under each program component whether they were already performed or are currently being done. Present activities were also evaluated if they are in line with the DA-Food Self-Sufficiency Program (FSSP). If not, the activities were modified in parallel with the objectives and goals of DA-FSSP.

Closing the event was Dr. Teodoro S. Solsoloy, assistant director of BAR. In his inspirational message he highlighted the significance of the well-orchestrated efforts of agencies that worked together towards the ultimate goal of a sustainable and vibrant Philippine agriculture sector. ### *(Leila Denisse E. Padilla)*

BAR strengthens rubber R&D initiatives; participates in PRIME 2012

Carrying the theme, *"Bridging Opportunities for Inclusive Growth,"* the Philippine Rubber Industry Cluster spearheaded the conduct of the 1st Philippine Rubber Investment and Market Encounter (PRIME 2012) considered as the first event to focus on providing access to market and investment opportunities.

The two-day event presented an array of activities from investment and market matching to conduct of technology exhibits showcasing various products to financing facilitation. This also provided a venue for business matching opportunities among industry players, market experts and other rubber players.

Undersecretary Cristino Panlilio of the Department of Trade and Industry (DTI) graced the opening ceremonies. In his speech, he noted that PRIME 2012 hopes to revitalize the rubber industry through public-private-partnership.

The event was well-represented by participants coming from government agencies like DTI, Department of Agriculture (DA), Department of Environment and Natural Resources (DENR), Department of Science and Technology (DOST), Department of Agrarian Reform (DAR), Technical Education and Skills Development Authority (TESDA), Board of Investments (BOI), National Development Company (NDC), state universities and colleges (SUCs), and private-sector partners.

DA-High Value Crops Development Program Director Jennifer Remoquillo presented the Philippine Rubber Industry Roadmap. Representing BAR were technical staff members, Mr. Rodolfo Fernandez and Ms. Jennilyn Castañeto.

BAR, as the lead coordinating agency for research and development activities of the DA, serves as a member of the Cluster. BAR has been active in the implementation of DA's National Rubber Development Program (NRDP). The program hopes to gradually increase the country's rubber plantation, and improve quality of rubber production for global competitiveness and increase investments in the industry.

Rubber is considered as one of the priority crops under the DA-HVCDP. In the Philippines, rubber planters are predominantly smallholder owning an average of three to 10 hectares of rubber farm.

To date, BAR is coordinating 20 on-going projects in partnership with DA-Regional Integrated Agricultural Research Centers (RIARCs), SUCs, local government unit and private sector. These include adaptability trials of different clones, establishment of rubber budwood garden and nursery, establishment of demonstration farms, technology commercialization of the recommended rubber clones, technology promotion of different production and processing technologies, conduct of information dissemination activities and skills development trainings, among others.

"The project activities and accomplishment of BAR have put up the groundwork for the attainment of the DA objective to expand rubber plantations in the country, especially in non-traditional areas, hence, have set the stage for the continuous support to rubber research and development," said BAR Director Nicomedes P. Eleazar.

In May 2010, BAR paved way for the drafting of the Implementing Rules and Regulations (IRR) in the creation of the Philippine Rubber Research Institute (PRRI), setting a milestone in the Philippine rubber industry. PRRI is mandated to initiate and administer research and development programs to improve quality and increase productivity of rubber especially benefitting smallholder rubber producers and processors. ### *(Ma. Eloisa H. Aquino)*

> "PRIME 2012 hopes to revitalize the rubber industry through public-private partnership.

Native swine production technologies take off

Staff members from BAR, BAI-NSPRDC and DA-QAES during a site visit for the demonstration and commercialization of technologies on native swine production. PHOTO: TCD

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR), in a bid to promote native swine production technologies, has partnered and conducted with the Bureau of Animal Industry-Native Swine and Poultry Research and Development Center (BAI-NSPRDC) and DA-Quezon Agricultural Experiment Station (QAES) a site reconnaissance in preparation for the establishment of technology demonstration sites for native swine production.

In the Philippines, native swine is popularly served as roasted pig or "*lechon*" during festivities and occasions. With the increasing demand for healthy and nutritious food brought about by the escalating trend of health conscious individuals, native swine is one commodity to fit in.

Based on the DA-BAR funded project titled, *"Demonstration and commercialization of native swine production technologies in selected areas in the Philippines"*, roasted native swine is highly preferred by consumers because it is tastier and has crispier skin and leaner meat as compared to "*lechon*" which utilizes commercial breeds. To date, there are available production technologies for native swine, hence, offers ready market for those who want to venture.

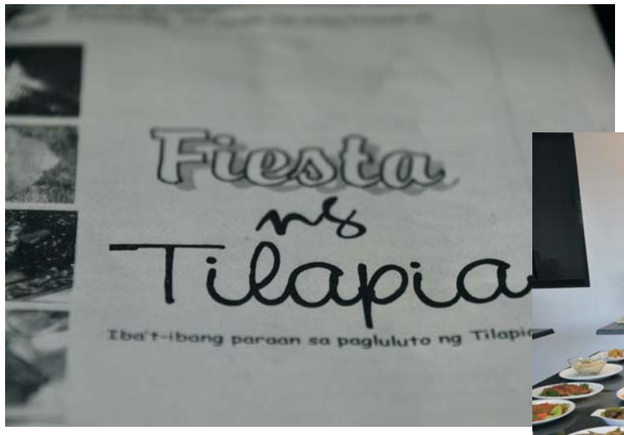
PHOTOS: TCD

BAR in the previous years has funded two completed and currently coordinating five on-going projects on native swine production. For this year, the Conservation and Development Specialists Foundation (CDSF), Inc. packaged a project "to demonstrate the viability of native swine enterprise and promote its commercialization" hence, came-up with a package of technologies on native swine production and management.

In line with this, a native swine production module team was created composed of BAR staff Evelyn H. Juanillo and Karla Marie Zapiter; Mr. Victoriano D. Evangelista and Mr. Emilio M. Mejia, Jr. from the BAI-NSPRDC and DA-QAES, respectively.

The team visited the three farm sites situated in: 1) Hacienda San Felipe, Barangay Matiway, Naga City; 2) Barangay Bacolod, Juban, Sorsogon City; and 3) Barangay Quidolog, Prieto Diaz, Sorsogon City. The team looked into the areas where the pig pens will be constructed likewise some existing pig pens for renovation/rehabilitation for the said project. The group likewise interviewed farmer-beneficiaries as part of the socio-economic profiling of the project area and discussed the technical aspects of the native swine production module. Farmer-beneficiaries will then receive one boar and four sows as a start-up module for native swine production. ### *(Ma. Eloisa H. Aquino)*

Publication to highlight various tilapia recipes on the way



PHOTOS: ACONSTANTINO and ZREYNOSO

Tilapia has been a staple *ulam* for Filipino families for years. Tilapia farming in Philippines has contributed to the increased income of numerous households in both rural and urban areas. Numerous studies on *tilapia* farming have also been performed in order to increase the productivity and income of tilapia farms. Apart from all these initiatives on what is termed as the "21st century food fish", there are still other ways in promoting tilapia.

In full commitment to the promotion and utilization of tilapia, the Department of Agriculture–Bureau of Agricultural Research (DA-BAR) provided assistance in the production of the "Fiesta ng Tilapia" recipe book by the Bureau of Fisheries and Aquatic Resources Regional Field Office 3 (BFAR-RFO 3).

A compilation of 90 creative and unique tilapia dishes prepared by various contributors—from professional chefs to housewives—this recipe book will cater to the growing demand of new and creative ways in preparing and serving tilapia.

"We produced this booklet ("Fiesta ng Tilapia") a few years ago, thinking of the ways where we can promote tilapia in the region. And then we came across "O My Gulay" produced by DA-BAR. We were inspired and now, we're coordinating for a bigger publication of this recipe book," shared Ms. Lilia C. Garcia, assistant regional director and manager of the Regional Fisheries and Research Development Center of BFAR.

A three-day photo shoot of all the 90 dishes ensued for this material. With the initial process of photographing all the 90 dishes accomplished by the Applied Communication Division (ACD) staff of DA-BAR through the assistance of Ms. Lanie RJ Lamyong, information officer of BFAR-RFO 3, the pre-production of the book is underway.

Like the many coffee table books and materials produced by DA-BAR, this recipe book will be launched soon after the many processes of collaboration, editing and re-editing—all with the objective to provide sufficient and practical information needed for an effective and helpful printed material.

Assistance from DA staff bureaus come in many forms—from monetary to actual manpower. Production of such publications is one initiative of DA-BAR that continues to promote research and development efforts, and shares its outcome throughout the country. ### *(Zuellen B. Reynoso)*

IDG projects in various regions validated and assessed

(L-R) Mr. Rommel O. Obias, Ms. Elvira S. Rapada, Mr. Benjamin Arano, Ms. Digna L. Sandoval, NMRDC technical staff, and Ms. Marjorie M. Mosende during the validation and assessment at the DA-BPI National Mango Research and Development Center (NMRDC), Guimaras.

In its effort to improve the institutional capabilities of the overall R&D system, the Bureau of Agricultural Research (BAR) is implementing the Institutional Development Grant (IDG) program.

The IDG program strengthens the R&D capabilities of the National Research and Development System for Agriculture and Fisheries (NaRDSAF) member institutions through funding support for the acquisition of modern laboratory equipment and information technology wares, and for the construction and renovation of R&D facilities.

To make certain that these projects are in sync with the terms and conditions specified in the approved proposal and to assess the physical condition of R&D facilities and equipment, the Institutional Development Division (IDD) carried out a series of validation and assessment of IDG projects for CY 1999-2011 in various regions. These include: Regions 6, 7, 11, and 12.

"Let us upgrade the DA research facilities such as research stations, stock farms, and experimental stations because they serve as mirror images of our department in every locality", said Agriculture Secretary Proceso J. Alcala during the 2012 Management Committee Meeting. He added that "making them centers of technology to be disseminated among farmers and fisherfolk is one of our priorities."

Led by IDD OIC-Head Digna L. Sandoval, the team identified the R&D needs of the various institutions. The team was composed of IDD staff members: Elvira S. Rapada, Marjorie S. Mosende, Rommel O. Obias and France Gayzel F. Caceres.

"The marching order of Secretary Alcala to upgrade the countries' research centers has been our thrust to intensify and reinforce the modernization of R&D facilities nationwide," said Ms. Sandoval.

In March, the team visited various sites in Region 6. These included: DA-RFU Western Visayas Integrated Agricultural Center (WESVIARC); Research Outreach Station (ROS) at Sta. Barbara, Iloilo and Patnongon, Padang, Antique; BFAR Regional Office VI; University of the Philippines Visayas; and BPI National Mango Research and Development Center at Guimaras.

After discussing with the projects-in-charge, the team affixed BAR IDG stickers on all the items purchased under the project and informed them that there should be a commemorative marker at the front of the infrastructures recognizing BAR as funding source.

In April, several sites in Region 7 were visited including the Bohol Experiment Station; Ubay Stock Farm; Agricultural Program Coordinating Office (APCO) at Dumaguete City; San Jose R&D Center; Office of the Provincial Agriculturist at Piapi, Dumaguete City; Siquijor R&D Center; Mandaue

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The Nutraceutical Laboratory of MSU General Santos City Campus is an IDG project of BAR.

Training for the AFACI project on plant genetic resources held

PGR participants pose for posterity. Joining them are Ms. Digna L. Sandoval (center), Ms. Maria Lea H. Villavicencio (8th from left), and Mr. Nestor C. Altoveros (5th from left).

In line with the initiatives of the Bureau of Agricultural Research (BAR), in collaboration with the Asian Food and Agriculture Cooperation Initiative – Rural Development Agency (AFACI-RDA) based in Korea, a consultation meeting and training on "Collecting, Conservation and Characterization of Plant Genetic Resources (PGR) Germplasm of Solanaceous Crops" was held at BAR.

AFACI is a cooperation among Asian member-countries that promotes sustainable agricultural green growth and contributes to consistent economic development in the Asian region through technological cooperation in agriculture and food sectors.

The BAR-funded project is being implemented by Ms. Maria Lea H. Villavicencio of the National Plant Genetic Resources Laboratory (NPGRL), Institute of Plant Breeding, Crop Science Cluster, University of the Philippines Los Banos and the Institute of Plant Breeding, (UPLB). It aims to promote sustainable use of PGR and to capacitate the DA partner institutions on the exploration, collection, regeneration, characterization, evaluation, and conservation of traditional tomato, eggplant and pepper germplasm.

Experts on PGR management, namely: Professors Nestor C. Altoveros and Teresita H. Borromeo from the NPGRL,UPLB served as resource persons. Participants who attended the training were identified as focal persons from various DA regional research centers and experiment stations.

Defined as plant materials with actual or potential value for present and future generations, plant genetic resources used for food, medicine, fiber, essential oil, commercial timber or ornamental have played important roles in the lives of the Filipinos.

However, the spread of modern commercial agriculture and intensive high-input production systems using hybrid varieties has placed traditional or farmers' varieties and breeds at low priority and high risk. In the country, this process has been reinforced by a crop loan policy that has promoted the use of high yielding varieties thus threatening the survival of locally-adapted cultivars and landraces.

In addition, the effect of genetic erosion through land clearing and deforestation is felt more strongly with wild relatives of crops and wild plants used for food. Urbanization and human population growth, on the other hand, has led to an accelerating rate of conversion of agricultural lands into subdivisions and industrial estates leading to the loss of habitats that assure their sustainability.

Given these challenges, Ms. Digna L. Sandoval, OIC head of the Institutional Development Division and principal investigator of the AFACI-RDA project, said that "it is imperative to equip our regional focal persons on the technical-know-how of managing their respective plant genetic resources."

Meanwhile, Prof. Borromeo reiterated that "the key principle of PGR is to maintain the genetic integrity, identity, and viability of our accessions." She added that "the lower the moisture content, the longer the shelf life of seeds." This is because seeds are hydroscopic which means they tend to absorb moisture from the environment. In keeping them dry, one may use desiccants like silica gel, salt, ash, or charcoal.

To provide a hands-on experience among the participants, Prof. Altoveros demonstrated the proper way to measure various parameters such as size, weight, and color of plant samples. He also explained how to measure irregular shapes like in the case of camachile and eggplant. ### *(Jacob Anderson C. Sanchez)*

VERMICULITE: The mineral wonder in urban gardening

by: Liza Angelica Barral

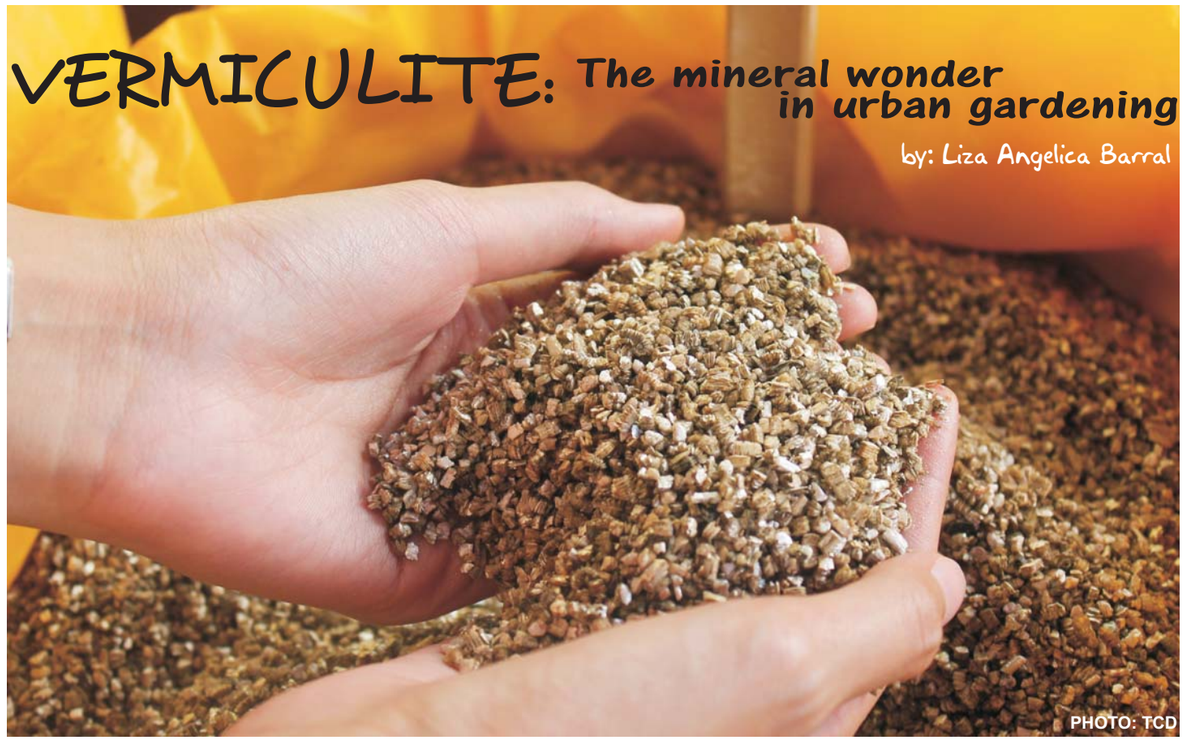

PHOTO: TCD

High-rise condominiums, studio-type apartments, huge commercial establishments, train-like structures of slum areas— these are the common views all over the metro. Indeed, urbanization has invaded most of our cities which brought out numerous problems. One is improper solid waste disposal, which becomes an environmental threat for us Filipinos due to the previous calamities that caused severe casualties. Another effect of urbanization is inadequate space for planting various crops, herbs and ornamentals. Unfortunately, the concept of "bahay kubo" is not anymore applicable in urban setting because all you can see are cements and firewalls, instead of nutrient-rich vegetables at your backyard. Thus, families have no direct access on the health and nutritional benefits of freshly harvested vegetables, fruits and herbs.

To address problems on garbage, food security and nutrition, the concept of Urban Gardening came into the picture. Through Urban Gardening, empty containers are being utilized as receptacle for the planting media so that any person can grow his or her own vegetables, fruits and herbs within their household despite of inadequate space.

But how can we grow a healthy plant with small amount of soil?

The mineral wonder

Vermiculite is hydrated magnesium–aluminium-iron silicate mineral, which resembles to mica and is very versatile owing to its thermal stability and inertness. It is also safe, clean to handle, easy to use, lightweight, odourless, mould resistant, non-irritant, non-toxic and not harmful to the environment. The common use of vermiculite in home gardening is the addition to the soil to improve its nutrient and water retention, increase porosity and makes the mixture sterile. Other beneficial properties of vermiculite are: 1) pH is essentially neutral, 2) improves soil aeration and makes light open compost, and 3) possesses useful cat ion exchange properties.

In a previous study done by the Makiling Plant and Products Exchange, Inc. (MPPE) in 2003, vermiculite in combination with soil showed remarkable growth on lettuce as compared to soil alone in terms of biomass (whole) weight. Tree Care in early 2012 conducted validation of this study using soilless media, composed of vermiculite in various proportions with coir dust and sand. The different growth media with vermiculite showed higher yields of lettuce, hot chili, oregano, tomato and okra as compared to those planted in purely garden soil, coir dust or sand.

Green movement campaign

Due to its numerous advantages, vermiculite was seen as a vital component of soilless growing medium in Urban Gardening. Thus, Tree Care and Maintenance Services Foundation Inc., an arboricultural company offering services in proper tree care and other plant maintenance, in collaboration with the Department of Agriculture-Bureau of Agricultural Research (DA-BAR), is currently implementing a project titled, "Commercialization of Vermiculite-based Low-Spaced Soilless Growing Medium in the Promotion of Urban Gardening for Primary and Secondary Public Schools". It aims to promote vermiculite-based low-spaced soilless urban gardening as an essential tool

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DA info officers attend seminar to effectively communicate agricultural biotechnology

Serving as the first build-up activity in celebration of this year's National Biotechnology Week, an information seminar on agricultural biotechnology was held on 8-10 November 2012 in Iloilo City. It was participated in by public information officers (PIOs) and regional information officers (RIOs) of the Department of Agriculture (DA).

Dr. Candida Adalla, officer-in-charge/director of DA Biotechnology Program Implementation Unit said that the seminar was held to empower information officers and increase their level of understanding regarding biotechnology because they are given the responsibility to disseminate the right information to farmers and fisherfolk. "*Hindi ko naman hinihiling na mahalin, ang hiling ko lang ay inyong unawain* (pertaining to biotechnology)," she added. She also discussed the different projects undertaken in view of the biotech program under the DA Biotech Roadmap.

Regional and public information officers of the DA family
Photo: DA-BPIU

Dr. Candida Adalla, OIC-director of the DA - Biotechnology Program Implementation Unit
Photo: ABRION

Experts on their respective fields were invited to talk on the different aspects of biotechnology including crops, livestock and fisheries. Topics included the potential of biotechnology in addressing issues on food and agriculture and how it can contribute in achieving food security and sustainable development.

Though not a new concept anymore, many still doubt its safety to consumers. Hence, issues on ensuring biosafety and responsible commercialization of biotechnology were also among the topics discussed. Ms. Merle Palacpac of the Bureau of Plant Industry - Biotech Core Team, reiterated that any technology, before being presented to the public, has to undergo series of tests to ensure their safety, and biotechnology is no exception.

Dr. Mariechel Navarro, manager of the Global Knowledge Center on Crop Biotechnology of the International Service for the Acquisition of Agri-biotech Applications (ISAAA), presented the topic on "Communicating Biotechnology: Experiences, Challenges, and Key Messages".

The topic was considered to be the most relevant to the information officers wherein she emphasized the crucial role of communicators in helping farmers and fisherfolk in making informed decisions through accurate and science-based information. "Our task is to give them that kind of information. How will the farmers decide on what kind of technology they will apply if they do not have the right information?" she said.

Participants also visited biotechnology facilities at the University of the Philippines Visayas and Southeast Asia Fisheries Development Center (SEAFDEC) where they were introduced to different equipments and laboratories used in the conduct of researches and studies regarding biotechnology.

A biotechnology overview seminar was also held on 26 November 2012 at Gateway Suites, Cubao, Quezon City to inform not only information officers but various stakeholders including students and the general public on biotechnology. It focused mainly on what biotech can do to help improve the agriculture, health, and environmental sectors.

(Anne Camille B. Brion)

BAR features BEEKEEPING in its seminar series

UPLB experts Dr. Cleofas Cervancia and Mr. Alejandro Fajardo discuss on the benefits and livelihood opportunities of beekeeping.
Photo: ABRION

Dr. Cleofas Cervancia and Mr. Alejandro Fajardo of the University of the Philippines Los Baños (UPLB)-Bee Program talked and discussed about the livelihood potential of beekeeping or apiculture during the seminar series of the Bureau of Agricultural Research (BAR) on 22 November 2012 at the BAR Conference Hall.

Attended by participants and representatives from state universities and colleges (SUCs), Department of Agriculture (DA)-Regional Integrated Agricultural Research Centers (RIARCs), DA-Regional Field Units (RFUs), government and non-government agencies, and private institutions, the seminar "Beekeeping for Food Security and Livelihood Opportunities" focused on the importance of various kinds of bees, natural beehive products, benefits of beekeeping and the industry's opportunities for bee entrepreneurs and practitioners.

"Beekeeping, one of the emerging industries and livelihood activities in the country, is seen to exhibit potentials in helping address food security as well as in providing income-generating opportunities," said Mr. Patrick R.A. Lesaca of the Applied Communications Division (BAR-ACD) as he delivered the message of BAR Director Nicomedes P. Eleazar.

All about the bees

Just like ant, bee is a type of group insect that utilizes population as its main power to supply food, provide shelter and build defense for their colonies. The basic types of bees are 1) solitary, 2) carpenter, 3) anthophorids, 4) leaf-cutter, 5) mining, and 6) social bees.

The Philippines has three native species of the social bees' type, namely: 1) *Apis dorsata/Apis breviligula*, 2) *Apis cerana*, and 3) *Tetragonula spp*. An abundant populace of *Apis mellifera*, an exotic social bee species from the West, also resides in the country.

Bees are very important to the ecosystem because they are major pollinators of various crops, flowers, and wild plants. Likewise, they are healthy sources of food and medicine and aid in the preservation of nature.

All of the natural products obtained from bees are produced and kept safe and fresh by the bees themselves in the hive. The most popular bee product is honey, which has lots of culinary functions and medicinal uses.

Aside from this, the beehive is a treasure chest of pollen, propolis (a resinous material used by bees to seal undesired open spaces and gaps in the hive), beeswax, royal jelly, bee brood, and bee venom.

Benefits and industry opportunities

"Beekeeping increases agricultural productivity towards food security," said Dr. Cleofas Cervancia, professor at the Institute of Biological Sciences-UPLB, as she discussed the benefits which can be gained from the industry.

Not only does the presence of bees aid in the pollination of crops which results to increased crop yield, but their honey and brood are component to the dietary needs of many communities. Honey is a healthy source of sugar while brood is a rich source of protein.

In terms of livelihood, beekeeping is sure to provide stable income because of its good product niche in the market. Many communities consume honey and combs as food supplements.

Meanwhile, pollen can be consumed by humans but it is also used as feed supplement for fighting cocks. Honey and propolis are widely used in creating effective cosmetic products of well-known brands. The honey cider is popularly sold as a home remedy for various sicknesses while the bee venom is procured by many pharmaceutical and medicinal companies all over the world because of its anti-rheumatic properties.

In the local level, beekeeping has a relatively low supply and relatively high demand in the market. The demand is on a constant rise because of the increasing awareness on the several health gains from bee products, and this analysis only proves that venturing into the bee business will surely earn good and stable profit. In fact, there has been a steady ascent of demand for bee products in Japan,

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Organic agriculture experts, practitioners, advocates convene for 9th NOAC

Close to 1,700 people, including practitioners, advocates, and experts convened to attend the 9th National Organic Agriculture Congress (NOAC) held on 6-8 November 2012, in Mandaue City, Cebu. With the theme, "Organic Agriculture: For Food Security & Business Prosperity," the congress was participated in by key personalities and officials both from the government and the private sectors.

Secretary Proceso J. Alcala of the Department of Agriculture (DA) welcomed the participants. In his keynote speech, the DA chief said he is optimistic that organic agriculture will be the key to farmers' success because it will elevate the skills among field workers.

Secretary Alcala announced that DA has earmarked P950 million intended for organic agriculture in 2013 to promote, implement, and further develop the practice of OA in the country. He said, bulk of the budget will be used in expanding organic agriculture practices, particularly transfer of technology to make local farmers and organizations more competitive once the country open its doors to other ASEAN nations by 2015.

DA Undersecretary Bernadette Puyat-Romulo presented the milestones of the organic agriculture movement in the Philippines. She reported that in June 2004, the first NOAC was convened through the collaboration of DA-Bureau of Agriculture and Fisheries Product Standards (BAFPS) with the Organic Producers and Traders Association (OPTA). This, according to Usec. Puyat, opened the doors to partnerships among stakeholders, regulators, academe, and non-government organizations. She also enumerated the highlights since the first congress was held up to the 8th wherein most of the significant developments happened including the largest participation and the presentation of the signed Organic Agriculture Act of 2010 to the general public. In the 8th NOAC, Puyat said, President Benigno Simeon Aquino III served as the keynote speaker.

For this years' congress, Usec. Puyat mentioned the need to establish a strong collaboration between farmers and consumers to further promote its benefits since the number of OA advocates has increased.

Assistant Secretary Salvador Salacup presented the accomplishments of OA based on the Leverage on the Positional Advantage. For instance, under the *Strategic Research,* the Bureau of Agricultural Research (BAR) obtained 99 percent fund utilization for CY 2011; funded 49 research projects; obligated P79M for CY 2012 organic funds. Under the *Institutional Development*, the Bureau of Soils and Water Management (BSWM) upgraded its composting facilities and expanded the modified composting production to 6,900 hectares. For the *Market Support and Incentives*, the Agribusiness and Marketing Assistance Service (AMAS) attended domestic trade fairs and exhibits at international events and attended the 1st International Organic Marketing Conference. For the *Innovative Trainings and Extension,* the Agricultural Training Institute (ATI) conducted 224 trainings on OA technologies and installation of internal control system benefitting close to 8,000 beneficiaries. *Production Support,* established techno demo farms on organic rice, corn, vegetables, swine, rabbit, dragon fruit, established composting, vermicomposting and trichoderma production facilities. *Regulatory Services,* promulgated and developed the Philippine National Standards on OA and Aquaculture, Organic Milled Rice, Organic Fertilizers and accredited the Organic Center Certification of the Philippines (OCCP) and Negros Island Certification (NICERT) as Certifying Bodies. *Policy, Advocacy and Planning,* created 356 Provincial and Municipal Local Technical Committees nationwide, conducted nationwide local chief executives awareness campaign and conducted NOAP implementation awareness NGO-PO forum.

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Guidelines to mainstream climate change initiatives in agriculture underway

In a bid to institutionalize all the adaptation and mitigation strategies being employed by the Department of Agriculture (DA) and its bureaus and attached agencies, a seminar-workshop on the development of guidelines for mainstreaming climate change adaptation and mitigation initiatives in Agriculture (AMIA) was held on 19 -21 November, 2012 at ELC, Antipolo City, Rizal.

The seminar-workshop aimed to come up with a handbook that will serve as a guideline in mainstreaming the adaptation and mitigation initiatives in agriculture across policy instruments among the areas of research and development (R&D), extension, and regulations.

Mainstreaming the AMIA simply means "the incorporation of climate change considerations into established or on-going development programs, policies or management strategies (FAO, 2009)." The DA will spearhead the drafting of AMIA framework through the DA-Climate Change Program.

Opening the two-day event was Dr. Segfredo R. Serrano, DA undersecretary for policy, planning, research and development and regulations. In his message, he emphasized that even though the country is not a major contributor to the greenhouse gases emission, the country still need to strengthen its mitigation and adaptation strategies especially in the agriculture sector as its ill effects will fall greatly to the country.

Other heads of DA's staff bureaus and attached agencies present were: Dr. Eufemio T. Rasco, executive director of the Philippine Rice Research Institute

(PhilRice); Engr. Rex L. Bingabing, executive director of the Philippine Center for Postharvest Development Corporation and Mechanization (PhilMECH); Dr. Carlos B. Carpio, deputy administrator of the Philippine Coconut Authority (PCA); and Dr. Asterio P. Saliot, director of the Agricultural Training Institute (ATI).

The Bureau of Agricultural Research (BAR) was identified as the lead agency for all R&D initiatives on climate change.

Representing the bureau were: Ms. Salvacion M. Ritual, OIC-head of the Project Monitoring and Evaluation Division (PMED), Ms. Cynthia V. de Guia, technical staff of Planning and Project Development Division (PPDD), and Ms. Amavel A. Velasco, technical staff of PMED. ### *(Diana Rose A. de Leon)*

BAR features beekeeping...from page 9

South Korea, Taiwan and the Philippines.

"Major mango and coffee producing corporations are using stingless bees, *Trigona spp.* and honey bees (*Apis cerana* and *Apis mellifera*) for pollination. Vegetable and seed producing companies are expanding production using honey bees. [With the] high demand for coconut oil-based products, beekeeping was introduced to coconut-growing areas," discussed Mr. Alejandro Fajardo.

Cognizant to the potentials of the beekeeping industry, BAR as the R&D arm of the Department of Agriculture ensures the allocation of support for bee-related projects and endeavors.

"This year, DA, through BAR and the High Value Crops Development Program (HVCDP), has supported five research and development projects that will promote beekeeping throughout the country. Three of which are five research and development projects that will promote beekeeping throughout the country. Three of which are under the HVCDP and two others are under BAR's National Technology Commercialization Program (NTCP)," said Dr. Eleazar.

Dr. Cervancia obtained her Masters and PhD in Entomology at the University of the Philippines Los Banos and her Post Doctoral at the University of Wales, Cardiff, UK. She is currently the Vice President of Asian Apicultural Association and President of APIMONDIA Regional Commission for Asia.

Mr. Alejandro, on the other hand, is a researcher and extension specialist from the UPLB Foundation and likewise obtained his Master's Degree in Entomology at the UPLB. He is a member of the International Stingless Bee Working Group. ### *(Leila Denisse E. Padilla)*