Intellectual Property...*from page 10*

which embodies the scope of IPR, the level of ownership, the relationship of scientists to the organization in terms of IPR and the sharing schemes of the inventors and the state.

Dr. Coloso was instrumental in having BAR invited to provide the IP Awareness Seminar Workshop for SEAFDEC scientists.

IP awareness seminar workshop

The seminar was held on 20 September 2007 with Dr. Andrea B. Agillon and Atty. James Dennis C. Gumpal as resource speakers.

Dr. Agillon covered the topics on IP management and its relevance to economic development, patents and utility model, patent document and prior art search. Meanwhile, Atty. Gumpal discussed IP policy formulation, the laws governing IPR, and workshop for the preparation of the draft IP Policy.

Thirty participants from SEAFDEC with Drs. Joebert Toledo and Evelyn Grace Ayzon, overall Chief and the R&D Chief, respectively, attended the workshop.

Participants were appreciative of the training because they were reminded of the IPs which they failed to apply for patents. They even admitted their lack of knowledge in anything related to IPR.

Publication in refereed international journals was the norm. Many of them still believe that public institutions whose researches are public funded should not apply for IPR. It took several discussions before some of them were able to internalize that both the constitution and the IP Code have the interests of the scientists and inventors to be given share of the economic benefits out of their creation.

Another observation common for conventional scientists is the intention to merely produce knowledge for knowledge sake and not to utilize the opportunity to receive royalties from their creations. They were prodded to take caution from now on, so that their main objective now is to apply first for IPR before disclosure to the public in any form. They are now committed to use "Patent-protect-publish-profit" as their model in IP management.

It is not easy for conventional scientists to just drop their old knowledge and habit and adopt new ones. It could take awhile before they can fully grasp the need to not fully disclose their IPs if they intend to have IPR protection, unless they are assured of the "filing date" already with them.

They were also assured that publication and commercialization activities can commence as soon as the filing date is acquired. The idea of the "non-disclosure agreement" is also brought to their attention, so they have a fall-back position in case discussions of detailed results are needed.

Future undertakings

Armed with the knowledge on IP Policy formulation, SEAFDEC has now their committees to make the IP Policy Draft for BAR's suggestions and refinement.

Atty.Gumpal is very much willing to help them refine their Policy. They were also assured of the services which BAR does to help IP Management in the National Research and Development System for Agriculture and Fisheries (NaRDSAF) which includes not only prior art search, evaluation for novelty and inventiveness, claim drafting, substantive examination compliance, but also the fees required for the application.

Reference:
"Sustainable Aquaculture through the 21st Century" published by theAquaculture Department, SEAFDEC, Philippines.

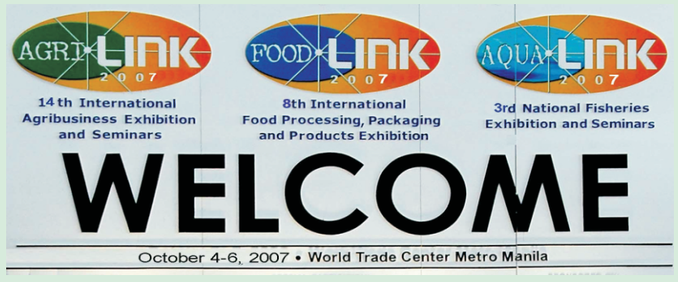
BAR joins...*from page 6*

thereafter as the "National Health and Wellness Tourism (HWT) Month.

The launching will be held on 6 October 2007 at the Manila Hotel, Roxas Blvd., Manila during the 19th National Research Symposium (NRS) awarding ceremony.

There will also be exhibit and products display on 4-6 October 2007 at the World Trade Center as part of the 2007 Agrilink/Aqualink/Foodlink. Among the indigenous plants to be exhibited and displayed are: live plants with known medicinal properties and plant-based products that have medicinal, aromatherapy and therapeutic properties. Brochures and handbooks will also be on-display for further information, reference and guidance.

Meanwhile, two seminar series will be conducted on 4 October 2007, 9:30AM-4:00PM at the RDMIC Building, Visayas Avenue, Diliman, Quezon City during the NRS activity; and on 6 October 2007, 10:30AM-12:30NN at the World Trade Center during the Agrilink/Foodlink celebration.



Topics include: 1) Indigenous plants for health and wellness, 2) Changing face of foods: Eat phytochemicals to stay healthy, 3) Nutraceuticals and cosmeceuticals from food plants: Wellness meets beauty, 4) Uses and health benefits of oregano, and 6) Culture and utilization of selected indigenous plants.

Presenters and lecturers are experts/scientists from UPLB, DA, and private institutions. *(Rita T. dela Cruz)*

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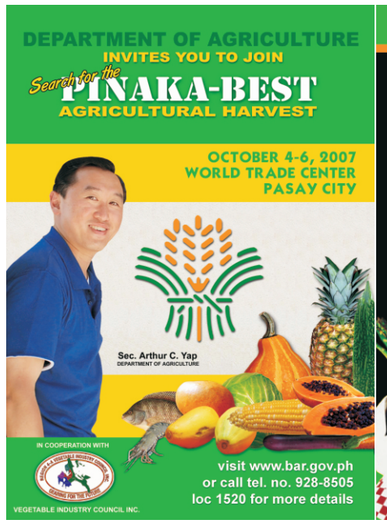
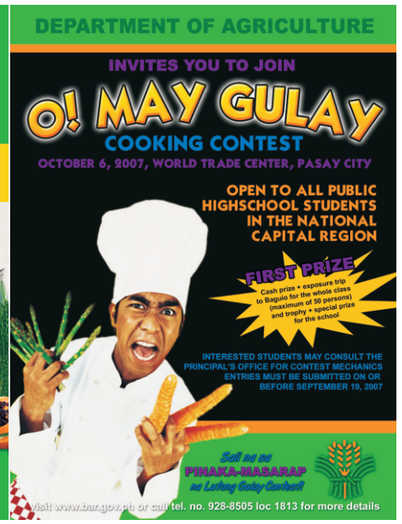
BAR joins 2007 Agrilink/Aqualink/Foodlink





The Department of Agriculture (DA), through the initiative of Secretary Arthur C. Yap and in coordination with the Bureau of Agricultural Research (BAR), features two *Pinaka* contests: "O! May Gulay Cooking Contest: PINAKAmasarap na Lutong Gulay" and the "Search for PINAKA-BEST Agricultural Harvest" in view of DA's priority to make food abundant, affordable, and accessible to all Filipinos.

This also highlights the Bureau's participation in the 2007 Agrilink/ Aqualink/Foodlink on 4-6 October 2007 at the World Trade Center, Pasay City, Metro Manila.

Also, in celebration of the Health and Wellness Tourism (HWT) Month, BAR launches an RDE program on "Indigenous Plants for Health and Wealth" and a book on "Postharvest Technology for Southeast Asian Perishable Crops."

O! May Gulay Cooking Contest

DA is hosting a cooking contest to encourage households in the urban areas to cook affordable and nutritious food using local agriculture products. It is designed to develop vegetable recipes that are easy to prepare, cheap, and delicious.

The contest is open to all public high schools from the National Capital Region (NCR) represented by two students from their school. Contestants from each school are grouped into six: *PaMaMariSan* (Pasig, Mandaluyong, Marikina, San Juan), *MuntiParLas-TaPat* (Muntinlupa, Parañaque, Las Piñas, Taguig, and Pateros), *CaMaNaVa* (Caloocan, Malabon and Navotas, Valenzuela), *PaMa* (Pasay and Manila), and *Quezon City*.

The competition undergoes three rounds of evaluation. In the initial screening, judges choose the top three recipe entries from each group based on its affordability and nutritional value. Entries that moved to the second round are judged based on affordability and palatability, nutritional value, visual appeal, and originality. Six winners are chosen for the final judgment.

The final round and awarding will be held on 6 October 2007 during the 2007 Agrilink/Aqualink/Foodlink celebration. The six finalists will be requested to do an actual cooking demo of their recipes during the final judgement. Finalists will already receive P2,500 cash and a special prize.

Secretary Yap will select the first place winner which will be dubbed as the "Secretary's Choice" and will take home P20,000 cash, an exposure trip to Baguio City (class section of the winning school), a trophy, and special prize for the school.

turn to page 6

DA promotes *malunggay* to combat health disorders

courtesy of www2.tokai.or.jp

Whoever thought that this lowly vegetable tree that just grew around our backyard can be of aid to combat cancer and other health related disorders?

Malunggay, also termed as the drumstick tree or horseradish tree, is the most widely cultivated species of the genus *Moringa.* It is among the many indigenous plants in the country that has multitudes of promising health benefits.

In line with the proclamation of the National Health and Wellness month, the Department of Agriculture (DA), through the Bureau of Agricultural Research (BAR), will be launching the "Indigenous plants for health and wellness RDE program." The said program aims to highlight the importance of indigenous plants and its products, including malunggay.

Recognizing the promising

turn to page 7

In this issue...

DEPARTMENT OF AGRICULTURE
BAR Chronicle
The official monthly publication of DA-BAR

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

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BAR participates in 2007 Asia Food Expo; mango products on display

MEHERNANDEZ

The Bureau of Agricultural Research (BAR) participated in the Asia Food Expo (AFEX) 2007 and 16th International Exposition on Food, Processing, Packaging and Handling Machinery, Equipment and Technology on 5-8 September 2007 at the World Trade Center, Roxas Boulevard, Pasay City.

BAR was one of the exhibitors showcasing the Pangasinan tropical dried mangoes of the Pangasinan Tropical Fruits Multi-purpose Cooperative (PTF-MPC) managed by Mr. Lito Arenas, owner of LA Trading, Philippines.

BAR provided financial support to the project "Enhancing Global Competitiveness of Agri-based Products through Product Diversification, Commercial Production of Dried Products using German-based Fabricated Drying System" with PTF-MPC as its proponent.

Dried mangoes processed by L.A. Trading are now being exported in some parts of Europe (Italy, London), Guam, Dubai, and Singapore. This year, Bureau of Food and Drugs (BFAD) has certified its products.

Other than dried mangoes, the cooperative has been producing pickled mangoes, tamangoes (mangoes in tamarind syrup), and pickled papayas. The cooperative also sees itself venturing on pineapple processing.

Agencies that collaborated for project include the University of the Philippines Los Baños-Postharvest Horticulture Training and Research Center (UPLB-PHTRC) led by Dr. Edralina P. Serrano and the Bureau of Postharvest Research and Extension (BPRE).

There were 450 exhibitors with product displays including fresh and processed fruits and vegetables, meat and poultry, sausages, bacon, breads, cookies, pastries, beverages (e.g. juices, coffee, wines, tea, and milk), noodles, baking ingredients and products, canned foods, food additives, herbs, oil, spices and condiments.

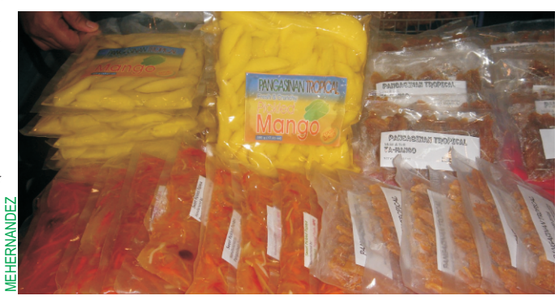
Machines/equipment featured are intended for cooking, food packaging, labeling, decorating and laboratory and marking, laminating, fryer, ice and ice making, and refrigeration equipment, among others.

Participating in the event were food manufacturers, food processors, government and non-government institutions, private sector and other individuals who want to learn the latest trends on food, products and ingredients, processing, and packaging equipment.

The Expo also featured cooking demonstrations, seminars, and other possible food franchising activities.

Carrying the tagline "The country's leader in food industry event, the Trade Information Marketing and Exhibitions, Inc. (TIME) organized this annual event. TIME, Inc. is a group of professionals who regularly organize local and international trade shows such as the Asia Food Expo, Food and Drinks Asia, Food Franchising, and Food Serv Asia.
(Ma. Eloisa E. Hernandez)

MEHERNANDEZ



Cultivating success with Cardaba banana

Ellaine Grace E. Nagpala

Banana is a sure money-earner. This could have been the belief of the residents of barangay Sonlon in Asuncion, Davao del Norte when the whole community decided to involve themselves in Cardaba banana production to earn money for their living.

Transforming a once rebel-infested area into a fruitful field, the people of Sonlon have managed their way to find a regular source of income with Cardaba.

The Cardaba story

Barangay Sonlon was once infested by the New People's Army during the 1980's and was the scene of numerous battles between the rebels and the military. This drove the residents away and vacated the village for several years.

On the onset of the new decade, the rebels abandoned the area and the villagers settled back and took over the place.

Corn was the main staple crop planted by the farmers in Sonlon. However, the rugged-rolling terrain of the place was not suitable for corn production. The nutrients present in the soil is either leached or washed away by rain water, making it unavailable for crop production. Losses were incurred by the farmers because of the very low yield of their crop.

In 2004, through the Southern Mindanao Intergated Agricultural Research Center and the Department of Agriculture-Regional Field Unit XI, the Community-based Participatory Action Research (CPAR) of the Bureau of Agricultural Research (BAR) was introduced in Sonlon. With the aim of establishing livelihood activities for the people in the said barangay, the "Cardaba Banana Production and Agribusiness Development Project" was launched.

The Cardaba is a cooking-type variety of banana, and is highly tolerant to diseases caused by fungi such as *Fusarium*. It is grown mainly for the banana chips industry.

During the initial implementation stage of the project, there were only 31 cooperators who planted Cardaba in a 25-hectare land. With hard work and perseverance, the production of Cardaba eventually flourished and the returns from its sales gave the farmers a good income. This gave the other residents of Sonlon a go-signal to also venture into Cardaba farming. From 31, cooperators increased to 300.

Concurrent with implementation of the CPAR project on Cardaba was the establishment of the Sonlon Development Cooperative (SODECO). Through the cooperative, planting materials and other farm implements were made available to farmers, and then later paid from the proceeds of their banana sales. The SODECO also plans to venture into processing their produce into banana chips.

To be able to cater to other people interested in Cardaba farming, planting materials like suckers and tissue cultured seedlings can be obtained form the office of the Provincial Agriculture Office.

Reaping success from Cardaba

courtesy of RKINTANA

Dr. Rolando Kinatana (2nd from right) of BAR with project coordinators from USM during the site visit of the CPAR team on Cardaba banana.

Mr. Antonio Corriba, a farmer-cooperator of the mentioned CPAR project, owns a half hectare land in Sonlon. He was among the residents of the area who first ventured into corn production, then later shifted to Cardaba production. Mr. Corriba noted that his shift from corn to banana was accompanied by an increase of income from his sales. He said that from his half-hectare land, the highest return that he could obtain from corn is only PhP 3,240.00, where as, he obtains a net income of PhP 8,000.00 from Cardaba. Now, Mr. Corriba happily notes that he has a regular monthly source of income.

RDELACRUZ

The involvement of the community of Sonlon in Cardaba farming is not only limited to its farmers. Inspired by the CPAR project implemented in their place, the Sonlon National High School (SNHS) also maintains a one-hectare Cardaba farm in its vicinity, which they dubbed as their "CPAR income generating project". According to Mrs. Raquel Tagulinao, head teacher of the SNHS, the banana area that they manage is an income generating activity to augment the meager maintenance and other operating expenses of the school.

The market for Cardaba

The Cardaba growers in Sonlon sell their harvested produce at the local market in Davao del Norte with price ranging from PhP 3.40 to PhP 4.00 per kilo. At present, there are around 26 processing plants of banana chips in Mindanao that can also be a possible market for the growers of Cardaba in Sonlon.

Dr. Rolando Kintana, assistant head of the Research Coordination Division of BAR, quoted that Cardaba growers can expect a net income of about PhP 56,000.00 to PhP 75,000.00 per hectare on a per kilo farm gate price of PhP 4.00. He added that the income of Cardaba growers can be further increased once that it penetrates the international market.

Intellectual Property Management: The SEAFDEC experience

Andrea B. Agillon, PhD

courtesy of ABGILLON

The Southeast Asian Fisheries Development Center (SEAFDEC) is a regional treaty organization established in 1967. The member countries include Brunei Darussalam, Japan, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. Its Secretariat and Secretary General is based in Bangkok, Thailand.

SEAFDEC is mandated to conduct RDE for fisheries and aquaculture production and help alleviate the global food crisis. The four departments were established in different member countries to focus on specialized areas of concern. The four departments include: 1) Aquaculture Department (AQD) based in the Philippines for farming of aquatic organisms, 2) Marine Fisheries Research Department in Singapore for postharvest technologies, 3) Marine Fishery Resources Development and Management Department in Malaysia for the wise use of oceanic resources, and 4) Training Department in Thailand for fishing technologies.

AQD has its headquarters in Tigbauan Main Station (TMS), Iloilo. Other stations are in Binangonan Freshwater Station, Laguna de Bay and Igang Marine Station, Guimaras Island.

TMS, the main station, has a 40-hectare complex which includes various research laboratories, hatcheries, broodstock tanks for experiments in artificial propagation, feed development and health management. It has training facilities, library, museum, administration offices, medical clinic as well as staff housing, cafeteria, and other services catering to resident staff, trainees, guests and visiting researchers and their families.

AQD is complemented with about 200 staff of specialist scientists working on different aspects of fisheries.

IP management activities

AQD's major contributions to the industry are technologies on 1) tiger shrimp seed production, grow-out techniques, feeds, disease diagnosis; 2) milkfish seed production and feeds; 3) rabbitfish seed production; and 4) tilapia feeds.

The first major breakthrough was the induced spawning of *Penaeus monodon* in captivity, which helped the spread of grow-out ponds in Asia and the world. Hatchery techniques for mudcrab, *Scylla spp.,* are also being studied.

The second breakthrough, induced spawning, larval rearing, and spontaneous spawning of milkfish, *Chanos chanos,* in floating cages, facilitated success for commercial operations.

Other commercial farming technologies produced include sea bass, groupers, snappers, rabbitfish, bighead carp, catfish, tilapia, abalone, green mussel and *Gracilaria*.

Heaps of Intellectual Properties (IPs) were produced from these technologies, which helped not only the Filipino fisheries industry but also outside commercial industries.

These IPs were managed distinctly only for world to use. Research outputs in AQD are purely for publications in peer-reviewed science journals and dissemination to the public.

IPs in the form of technologies, processes, methodologies and products are also disseminated by these scientists and researchers through training courses and seminars for various schools, government agencies, and private sector.

IPR awareness is almost absent among them. They exemplify the conventional scientists who fall in the category of the "publish or perish" types. Publication is their ultimate goal and eventually to give the technologies to the public especially their clienteles in Southeast Asia. They still believe that researches are publicly funded so must freely go to the public. They are not even remotely aware of their rights to their works as scientists who are protected by the Constitution and the IP Code.

Dr. Relicardo Coloso, head of Nutrition and Feed Development Section, attended the BAR IP Awareness training conducted in BAR in July 2007.

Dr. Coloso is a specialist in feed formulation for fishes and has several publications in refereed journals abroad. Amazed with the IP products and services which they have not managed properly due to lack of IPR awareness, he realized the bulk of information they have disclosed which otherwise would have the proper protection of patents.

He appreciated the BAR IPR seminar that he realized his colleagues needed to benefit from the IP seminars as well. He also recognized the need for SEAFDEC to formulate their IP Policy,

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RDELACRUZ

BAR, ILIARC, LGU-Alaminos City launch two goat projects to boost farmers' livelihood

The Department of Agriculture (DA), through the Bureau of Agricultural Research (BAR) and the Ilocos Integrated Agricultural Research Center (ILIARC) in cooperation with the local government of the City of Alaminos, conducted a simultaneous launching of two projects intended to boost goat production and provide sustainable livelihood for the farmers.

These are the "CPAR Goat Multiplier Farm" and the Dairy Goat Production Project" which were launched in Barangay Dulacac, Alaminos City, Pangasinan on 18 September 2007.

Dr. Jovita Datuin, ILIARC manager, said the purpose of the goat multiplier farm is to upgrade and produce good, quality stocks of goat to meet the high demand for chevon in the local market. Meanwhile, the dairy goat production project serves as another income-generating venture for the farmers in Alaminos City which is complementary to the local government's free milk feeding program.

According to City Administrator Wilmer S. Panabang, this project sets off the health and nutrition programs of Alaminos City as the goat raisers will be trained to produce dairy products which will be purchased by the city government for its year-round supplemental feeding program that hopefully will improve the nutritional status of their community.

The projects were launched in the farm of Arnold Taipan *(see photo above, right side)*, one of successful CPAR-farmer cooperators and goat raisers in Brgy Dulacac, Alaminos City who was also a graduate of the Farmer Livestock School on Integrated Goat Management (FLS-IGM) in 2004.

As a farmer-partner of the project, he received 24 heads of upgraded Anglo Nubian as initial stocks. Out of this heard, he will have to pay and return 48 stocks in two years which will then be distributed to other farmer beneficiaries.

The basic idea of the scheme is to "multiply, expand, and profit" explained Mr. Amador Macabeo, crop section head of BAR and Region I coordinator, who was present during the launching of the project in behalf of Director Nicomedes P. Eleazar.

Macabeo said "The success of one project in a particular community will spread in other communities so that whatever they have done there to make it successful will be learned and adopted, whatever problems encountered will be given immediate solution."

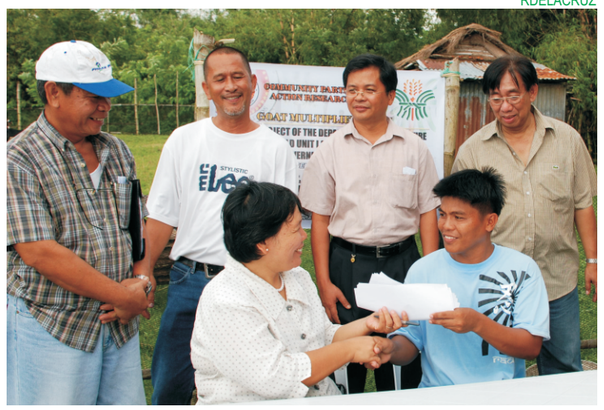
"Multiplicity will take into place if a community finds the technology productive and sustainable, so thus everyone follows and model their own farms towards productivity and development," Macabeo added.

Since the inception of the CPAR Agribusiness Development Project (ADP) in 2005 wherein eight bucks were initially distributed to selected farmer-cooperators for upgrading, there are now hundreds of goats produced and more farmer-beneficiaries taking advantage of this profitable and sustainable goat farming venture.

Manuel Volante, another CPAR farmer-partner who was also present during the project launching, said that what is good about raising goats is that with low capital, minimal land area required, and low risk in managing, the return of investment is very high. He added that the market demand for chevon is high so farmers will have no problem in selling goat meat.

He attributed the success of this project to DA for initiating these income-generating projects to benefit farmers in the regions and to LGU-Alaminos City for supporting this kind of livelihood endeavors. *(Rita T. dela Cruz)*

RDELACRUZ



ILIARC Manager Jovita Datuin (left) turns over 24 goats to farmer-partner Arnold Taipan (right) during the launching of his goat multiplier farm in Brgy. Dulacac, Alaminos City, Pangasinan.

Dairy project getting a boost for enterprise development

courtesy of PCC

The entry of livestock enterprises in the mainstream of the commercialization is now being recognized in the country. Several agencies including the Philippine Carabao Center (PCC) are now into the commercialization program being coordinated by the Bureau of Agricultural Research (BAR).

This time, the dairy industry will have a share in utilizing and making a responsive technology promotion and commercialization activity. Starting from the development of upgraded and improved buffalo breeds with high quality dairy performance, PCC research and development (R&D) activities are intensified.

Based on PCC's mandate to conduct and produce appropriate R&D breakthroughs and innovations, the buffalo biotechnology program focuses on upgrading and improving our local breeds of draft animals including dairy performance through a smallholder carabao production management system of raisers and farmers.

Specifically, PCC dairy enterprise development project ensures that the dairy and milk products will give importance to sustainable and profitable venture through from the smallholder carabao production management system.

The experiences gained by the farmers who are involved in the national impact zone (NIZ) of PCC will reflect the state-of-the-carabao dairy industry.

For now, the dairy products are promoted as nutritious and healthy food. PCC has initially collaborated with the local Department of Education District offices in Nueva Ecija for the "School-Feeding-Program" to be successful in its promotion and commercialization activities. This joint activity ensures that carabao milk and other dairy products are accepted not only in smallholder village level but also nationwide since market acceptability and general consumption are its ultimate goal by supporting activities on the development of dairy enterprises at the local level.

The different carabao milk and dairy products being promoted and commercialized are mozzarella cheese, yogurt, pasteurized and flavored milk, *pastillas de leche*, and *kesong puti*. *(Marlowe U. Aquino, PhD)*

PCC now into participatory community-based initiatives for carabao development

courtesy of PCC

The Philippine Carabao Center (PCC) is now into the new trends of development to be efficient and effective in its management and operation through responsive and dynamic adherence to participatory community-based development for carabao.

This was observed during the special review of the National Impact Zone (NIZ) on 12-14 September 2007 at the PCC Headquarters, Science City of Munoz, Nueva Ecija.

The review highlighted the initial accomplishments of the Carabao Development Program (CDP) using its development framework and the NIZ as its entry point in support of the overall vision, mission, objectives and goals of PCC.

Participants in the review included the PCC management headed by Drs. Libertado C. Cruz, Felomino Mamuad, and Liza Battad, researchers and scientists, technical staff, and PCC center managers.

The invited reviewers were Dr. Louie A. Divinagracia of the Graduate School of Business Administration, De La Salle University-Manila for his expertise in enterprise development and management, and Dr. Marlowe U. Aquino of the Bureau of Agricultural Research (BAR) for community development capability.

In the review, it was recognized that there is a need to incorporate the strategies of community participation especially during the monitoring and evaluation (M&E) activities as well as strengthening and enhancing of the different dairy enterprises in different provinces of the country.

Related to this, PCC is keen on learning more and include specific details of social dimension within the total development framework of the CDP. This initial activity will be carried out through the life cycle on the CDP. Since this is a work in progress, PCC will continue to tap the expertise and services of Drs. Divinagracia and Aquino for a more holistic and focused development. This will ensure that the expected outputs and desired outcomes are achieved in a more participative and clientele-oriented activities.

A comprehensive process documentation will be done from the start of CDP implementation using document analysis. The PCC staff will be subjected to hands-on mentoring using the Internet and other forms of interactive strategy as well as develop a more participative monitoring evaluation for the implementation of the carabao development program. *(Marlowe U. Aquino, PhD)*

courtesy of RKINTANA

Tiblawan farmers cooperative reaps sweet success from Carabao mango

Ma. Eloisa E. Hernandez

Farmer-members of the Tiblawan Fisherfolk and Farmers Multi-Purpose Cooperative (TIFFARMCO) in Tiblawan, Davao Oriental found ways to contribute to the high demand for mangoes.

A Community-based Participatory Action Research (CPAR) project on mango production of the Department of Agriculture (DA) through the Bureau of Agricultural Research (BAR), which launched in 1999, has led to the fulfillment of the long dreams of Tiblawan farmers.

A multi-disciplinary team of researchers from the Southern Mindanao Integrated Agricultural Research Center (SMIARC) with support from its local government unit (LGU) has chosen Brgy. Tiblawan as the pilot site for the project due to the presence of marginalized farming communities whose lands, although arable, are idle and planted mainly for corn.

Today, the coop has 135 farmer-members, 77 of which are CPAR cooperators. Each cooperator planted an average of one-half to two hectares mangoes.

As a contribution to the coop, DA-Regional Field Unit 11 and CPAR project implementers established a multi-purpose dryer, corn mill, and building facilities.

The project provides Carabao grafted mango seedlings and technical assistance to farmer-cooperators. The farmers would have to pay them back once they are established in selling their harvests.

Mr. Adelito Caballes, one of the successful CPAR-cooperators in Tiblawan, attributes his success to the technical assistance provided by BAR when he was starting. The high demand for Carabao mangoes has also helped him in boosting his market opportunities. As a farmer-cooperator, he was granted 200 Carabao mangoes as planting materials for his 2-ha farm.

"It was not successful at first," Caballes admitted, "as the coop experienced hurdles during its first few years. Unexpectedly, the trees hardly bore fruit after five years."

It was only in August 2006 that their long-wait reaped sweet success. This sweet harvest earned Mang Adelito P131,000 from the 20,000 kilos of mango he harvested. Soon his coco-lumber house was renovated with concrete house. He was also able to send his children to school.

SMIARC provided Mang Adelito a small herd of sheep to graze and weed the mangoes when they were still young. This offered additional income and weeder for his now growing mango farm.

Dr. Rolando V. Kintana, assistant head of the Research Coordination Division (RCD) of BAR said "CPAR has contributed a lot to the farmers in Tiblawan not only to uplift their economic condition but more important, it has empowered them."

"Planting mangoes offers a bright future for the farmers and the community. As the mangoes grow older, they produce more and better quality fruits resulting to high income. When housewives become experts in mango processing, this would further result to value adding of their crop and would create more jobs for the community," Dr. Kintana added.

courtesy of PHTRC

NIZ: Innovative model for improved draft carabao

Marlowe U. Aquino, PhD

courtesy of PCC

photos courtesy of PCC

After the success of the Philippine carabao documentation project that changed the lives of carabao raisers and farmers, comes an innovative model to develop the draft animal for productivity and profitability.

The National Impact Zone (NIZ) model is the answer that shifted the role of the draft animal into more diversified animal for milk, meat, draft and hide.

NIZ model is one of the modalities and development processes that propelled the implementation of the Carabao Development Program (CDP) of the Philippine Carabao Center (PCC). The concept is a holistic modality developed by Drs. Libertado C. Cruz and Zosimo M. Battad for the purpose of improving the socio-economic situation of carabao farmers who are into dairy production from production, processing and marketing activities supported by technical and financial services.

PCC, in partnership with the provincial government of Nueva Ecija, is now in the process of implementing the NIZ by incorporating critical elements of development to establish a productive, profitable, stable, and sustainable carabao enterprise development.

Initially, the carabao dairy village enterprise is a working model and strategy to implement the NIZ. The NIZ template is basically anchored on PCC's "25 cow dairy buffalo module" which offers 25 purebred Bulgarian buffaloes to 25 qualified farmers who are members of a primary cooperative.

In return, one farmer-cooperative receives and takes care of one dairy buffalo cow under a five-year contact with PCC. Through this scheme, arrangement and expansion or roll-over activities are done for more participation and people's involvement in the CDP.

Originally, CDP was envisioned to mobilize ideas, efforts, resources and participation of smallholder farmers, local government units, concerned government and non-government institutions and organizations and entrepreneurs. This was observed in the first PCC initiated activity with the Tulong Multi-purpose Cooperative in Tulong, Urdaneta, Pangasinan in cooperation with the Budhi ng Pilipinas Foundation. As the CBED progressed and new lessons were learned it became a development process and work in progress that was transformed into the NIZ.

To date, NIZ is more pragmatic and interactive and its activities were considered to showcase the viability of the carabao production for greater benefit of the smallholder farmers and rural farming communities.

Thus, the NIZ is strengthening the internal and external capacities of key players and stakeholders. The individuals, organizations and communities involved in the NIZ implementation are now more responsive because of PCC's commitment to improve the carabao industry as a whole.

However, it was noted that to further enhance NIZ implementation, more participatory monitoring and evaluation activity should be undertaken for effective feedback mechanism on the resource utilization and provision of technical services.

Through PCC's programs, the success of the NIZ will depend on balanced, well-coordinated and timely delivery of services and most importantly the responsibility of ownership by the people and community on the program and projects on carabao development. As long as the clientele of the NIZ is assured that they have a role to play in the implementation of the NIZ, social capitalization and people empowerment will be the strong factors on the success of the NIZ nationwide.

The NIZ piloted in Nueva Ecija with the Nueva Ecija Federation of Carabao Cooperative (NEFEDCCO) is supported by PCC. The coop's crucial role is to implement the NIZ as a working model and development initiative to be replicated in the regional impact zone (RIZ).

The PCC's 13 regional carabao centers in the country will drumbeat the implementation of the RIZ in order that all efforts on carabao development in the country will be localized and address the technology needs and requirements of the people. With the strong technical support and people's determination, the NIZ is seen as a nationwide modality for development projects not only for carabao but other livestock commodities was well.

Sources:

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courtesy of PCC

BAR funded project on goat receives CSC's *Pag-asa* Award

courtesy of MABELTRAN

Dr. Ma. Asuncion Beltran (4th from left, first row), project leader of the "Enhancing Goat Productivity through Adoption of Technologies of FLS-IGM" receives this year's *Pag-asa* Award from the Civil Service Commission (group category).

The project "Enhancing Goat Productivity through Adoption of Technologies of FLS-IGM" receives this year's Civil Service Commission (CSC) *Pag-asa* Award for Outstanding Work Performance (group category).

The *Pagasa* Award is conferred to group of individuals for their outstanding contributions resulting from an idea or performance that directly benefitted a great number of people.

With funding support from the Bureau of Agricultural Research (BAR) under its Technology Commercialization Program (TCU), the project is being implemented by the Institute of Veterinary Medicine, Tarlac College of Agriculture (TCA).

According to Dr. Maria Asuncion G. Beltran, project leader and dean of the Institute of Veterinary of Medicine, out of the 30 nominees vying for the award, eight qualified as semi-finalists and only two were announced as winners, one of which is the project on enhancing goat productivity.

The project was selected due to its positive outcome to its intended farmer-beneficiaries, outstanding economic impact, and sustainability.

Beltran said that goat is one of the priority commodities in Tarlac; its production increased to almost 300% after the project was implemented.

The project improved the quality of goats by upgrading the native stocks with Boer and Anglo Nubian breeds, making chevon well prized and highly demanded in the market.

Farmers who have attended the Farmers Livestock School on Integrated Goat Management (FLS-IGM) were able to acquire new technologies in goat raising, resulting to an immediate reduction of mortality rate to almost 85%.

Beltran also said that with the variety of alternative technologies made available to the farmers, they served as "magsasakang siyentista" empowering themselves through participatory approache in developing appropriate technologies that would best suit their farming needs. Technologies include improvement in housing system, planting of improved forages, health management like deworming, and appropriate feeding system.

Farmer-graduates of the FLS-IGM admitted that they gained so much from this school. Liwanag Reate, a farmer-graduate of FLS-IGM and now one of the successful goat farmers in Brgy. Polo, Pangasinan revealed that her skills in goat raising have greatly improved. She said that, "It not only increased my income, it also made me feel fulfilled in believing in what I can do for my family and what I can do as a successful farmer in my community."

Dr. Beltran received the *Pag-asa Award* along with Drs. Lordy Pagatpatan, Karen Jinnna G. Ubaldo, and Mrs Tessie Dato who were involved in the project.

The group received a gilded gold medallion of honor, a plaque, and P50,000 cash prize. *(Rita T. dela Cruz)*

RDELACRUZ

Getting all NATURAL with ORGANIC farming

Rita T. dela Cruz

courtesy of commoncrow.com

Organic farming gained quite a reputation due to health and environment considerations as a consequence of the unabated use of chemical and synthetic fertilizers and the decrease in soil fertility.

If a farmer engages in organic farming, he is growing crops using sustainable production practices while developing biological diversity in the field to disrupt habitat for pest organisms as means of pest and disease control. Since organic farming does not allow the use of pesticides and synthetic fertilizers, in the process, he is also ensuring maintenance and replenishment of the soil's nutrients.

Recently, the web portal of the Bureau of Agricultural Research's partner in its Rice Network, the Philippine Rice Research Institute (PhilRice) in Agusan reported the development of a technology involving organic farming that farmers in Northern Mindanao are now adopting.

The Waste Management, Organic Farming, Microbial Technology and Biomass Utilization or WOMB technology increased farmers' yield to as much as 6.8 t/ha. This technology is teaching farmers that organic fertilizer from waste is a cheap and more practical alternative to commercial and chemical fertilizers.

Every cropping season, farmers gather organic materials like rice hull, banana peelings, saw dust, chicken manure, old newspaper, which are later made into organic fertilizer. With the help of a solution called Effective Microorganisms (EM), fertilizers are being produced from these waste materials that contain nutrients vital to growing rice. In this manner, the farmers are also helping in the proper waste management efforts in their communities.

Apart from addressing health issues that usually arise from ingesting conventionally-grown agriculture products, organic farming products have also high market potential, especially in the international trade.

The downside of pursuing this market, though, is that the Philippines does not have the benefit of a policy framework that ensures quality and competitiveness of organically-grown products against products from developed countries.

The Department of Agriculture (DA), in partnership with the private sector, is taking the initial steps in establishing this much-needed framework by adopting the guidelines and procedures based on the International Federation of Organic Agriculture Movements (IFOAM) basic standards.

IFOAM-Philippines has come up with a basic standards for the Philippines. The DA also released a special order creating a National Task Force for Organic Agriculture. The implication of having a regulatory body for organic products is a good come-on for the world market.

If you are about to dig into your crisp, organically grown greens, salad time need not be stressful time if you are one who worries about ingesting and, consequently, building-up chemicals in your body.

Organic produce contains significantly lower levels, or none at all, of pesticide residues than food produced conventionally. The United States have set strict guidelines on manure use in organic farming: either it must be first composted, or it must be applied at least 90 days before harvest, which allows ample time for microbial breakdown of any pathogens that may affect humans or livestock. This way, being free from chemical build-up would not mean vulnerability to pathogens. It would still be a worry-free dining, after all.

BAR joins...*from page 1*

The second prize winner will receive P15,000 cash, an exposure trip to Tagaytay City, a trophy, and special prize for the school.

The third prize winner will get P10, 000 cash, a trophy, and special prize for the school.

Search for PINAKA-BEST Agricultural Harvest

This is a search for outstanding agricultural and fishery products that show exceptional features based on size, weight, quality and physical appearance. The contest aims to reward farmers/fisherfolk who have astoundingly produce and raise extraordinary agricultural crops and fishery commodities in their maximum market potentials.

The search is open to all Filipino smallscale farmers/fisherfolk or farmer fisherfolk cooperative or organization member.

The "Pinaka" harvest will be judged based on physical characteristics including weight in kilograms, length in centimeters, and overall physical appearance. Entries will be compared with the normal size of the agricultural commodity.

Commodities qualified are: (for fruits) mango, Cardaba banana, papaya, pineapple, and corn; (for vegetables) *ampalaya*, eggplant, squash, cabbage, and sweet potato; and (for fisheries) *bangus, tilapia, lapu-lapu*, carp, *sugpo*, black tiger shrimp, white shrimp vannamei, and *ulang*.

Exhibition and awarding of winners will be held during the Agrilink/Aqualink/Foodlink celebration on 6 October 2007.

Grand winner will receive P10,000. A cash amounting to P5,000 will be given to "People's Choice" winner while P1,000 will be awarded as consolation prize.

Indigenous Plants for Health and Wellness

Another activity lined up by DA through BAR is the launching of the "Indigenous Plants for Health and Wellness RDE Program" and book on "Postharvest Technology for Southeast Asian Perishable Crops" by Drs. Elda B. Esguerra and Edralina P. Serrano of the University of the Philippines Los Baños (UPLB).

This activity is in view of the Proclamation No. 1280 declaring the month of October 2007 and every year

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Nurturing life through organic farming

Ma. Eloisa E. Hernandez

MAQUINO

Mr. Gil Carandang, President of the Independent Organic Inspectors Association of the Philippines (IOIAP)

"Organic food is may be similar or may even has a better yield with the food produced through conventional method with a more nutritious content," remarked Mr. Gil Carandang, during the 46th Annual Convention of the Philippine Association of Food Technologists, Inc. (PAFT) on 3 September 2007 at the Heritage Hotel, Roxas Boulevard, Pasay City.

With the theme "Food Technology 2007: Better Food for All," the Bureau of Agricultural Research (BAR) served as one of the exhibitors and invited Mr. Carandang as one of the resource speakers for the event. Mr. Carandang is DA-Fullbright scholar at the University of California Santa Cruz, Ecological Horticulture who now serves as the President of the Independent Organic Inspectors Association of the Philippines (IOIAP).

Carandang is an owner-farmer of the Herbana Farms, a four-hectare ecological organic demonstration farm located in Calamba City. Showcased in his farm are herbs, organic salad greens, specialty vegetables, free-range chickens, and tilapia aquaculture. His farm likewise serves as a training venue for different organic and natural farming technologies including those of the Biodynamic-French Intensive, Agroecology, and Korean Natural Farming.

The Herbana Farms offers seminars, workshops, short-courses, and apprenticeship on sustainable bio-intensive mini farming; planning, designing, and construction of sustainable organic mini-farm; and natural farming system for crop and livestock, among others.

Practicing organic farming

In the lecture, Carandang discussed three important considerations in practicing organic farming: 1) non-usage of chemical inputs, 2) utilization of genetically modified organisms (GMOs), and 3) production of sustainable supply of fruits and vegetables. "We should be able to perpetually produce food in the land we are farming," Mr. Carandang emphasized.

"Farming approach depends particularly on the soil used. We need to grow and feed the soil for the microbes to feed the plants later creating the vitality of health and soil fertility that will influence the yield and economic aspect in organic farming, The other aspect involved is soil regeneration or soil building" he added said.

Organic standards

Organically produced food must be certified accordingly. Organic processing should be in compliance with the organic standards. This involves organic integrity which means non-usage of pesticides, chemicals, or other GMOs.

Another important note is that farmers should practice good documentation on determining and verifying the source of ingredients used in farming. Contamination from the conventional method should be taken into consideration.

"In the organic system, we are trying to deliver the integrity of organic. Organic is based on life. We nurture the soil to grow the beneficial microbes that will serve as food and life to the plants. In nurturing the soil, we grow life and we become life itself," Mr. Carandang concluded.

DA promotes...*from page 1*

benefits from malunggay, DA also sets foot in developing a local industry for vegetable through its Biotechnology program.

Recent findings from the Medical College in Kolkota, India revealed that among the different medicinal herbs that can be a potential source of anticancer compounds, only malunggay has shown to play the role in the treatment of female reproductive disorders like the epithelial ovarian cancer.

The effectiveness of malunggay in the treatment of the ovarian cancer is attributed from a combination of antitumor and hormonal properties from the plant's root bark extracts. As a green-leafy vegetable, malunggay is also found to contain phytochemicals that can prevent the development of cancer cells and anti-oxidants against unstable free-radicals.

Aside from cancer, the onset of other chronic diseases like arthritis, heart complications and kidney diseases can be prevented because of the potent antioxidants from malunggay. The malunggay is highly rich in vitamins A, C, and E, thus making it capable to quench free-radicals that can impair the body's metabolism and eventually cause cell death.

Also dubbed as "the miracle vegetable," malunggay also helps to attain good eyesight and facilitate digestion and bowel movement. It is used to cleanse wounds and ulcers, cure stomach aches, scurvy, asthma, earache and headaches.

With its numerous medicinal values and high nutrional value, the interest in malunggay ascended as a cheap, readily available medicinal plant. Malunggay can be grown almost anywhere using seeds and cuttings. Three months after germination, the young leaves can already be harvested, hence an instant source of vitamins, niacin, iron, calcium, and protein available. (*Ellaine Grace L. Nagpala)*