

# Roundup

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## Successful dairy carabao farmers, entrepreneurs share good practices in production, business in 2nd National Carabao Conference

BY MA. CECILIA IRANG



Catalina Visda, an epitome of the "Nagtagumpay" theme, is considered one of the model progressive farmers in the National Impact Zone for having provided for the college education of her two children thru carabao dairying.

Triumphant dairy farmers and entrepreneurs in carabao-based industry imparted their good practices in the 2nd National Carabao Conference held last November 14 and 15 at the national headquarters and gene pool of the Philippine Carabao Center (PCC), Science City of Muñoz in Nueva Ecija.

With the theme, "Nagsipag...

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"Engaging our progressive farmers to share their respective stories to the participants is one way of encouraging and motivating them to strive harder in their chosen venture and at the same time encourage others to follow suit".

— **Wilma Del Rosario**  
2nd NCC Overall Chair

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# Successful... FROM PAGE 1

Nagnegosyo... Nagtagumpay!”, the conference served as a venue for meaningful interaction among the participants and a source of significant information and ideas, for sharing and disseminating, which is expected to inspire more to participate in the Carabao Development Program (CDP).

According to Wilma Del Rosario, National Impact Zone (NIZ) coordinator of PCC and the overall chair for the second NCC, strategic breakout sessions with different speakers according to their respective practices were arranged to realize the conference theme.

“Engaging our progressive farmers to share their respective stories to the participants is one way of encouraging and motivating them to strive harder in their chosen venture and at the same time encourage others to follow suit,” she said.

For the “nagsipag” (diligent technology adopters), those who shared their stories are farmers who have been persistent in improving their way of living thru the income that they earn from the dairy carabaos. They also narrated their good practices in the value chain and how they adopt technologies in their respective activities.

Isagani Cajucom of Lupao, Nueva Ecija discussed the income he earns from silage production; Catalina Visda of Sto. Domingo, Nueva Ecija shared her good practices in production such as care and management of buffaloes; Eugenio Felicano Jr. of San Agustin, Isabela shared the benefits he gets from the bull loan program of PCC; Eliseo Misleng of San Jose City, Nueva Ecija talked about how he gets to save household expenditures such as electricity and gas that they use for cooking because of the technology on biogas digester

using carabao manure; Imelda Zamora of Asingan, Pangasinan, narrated the profits she gets from the sales of vermicast thru vermicomposting; and Sernan Pelayo of Aliaga, Nueva Ecija imparted his practices as a village-based artificial insemination technician (VBAIT) and the income he derives from it.

“I am really happy and satisfied with the income I get from being a VBAIT. Aside from being of help to others, I am also able to contribute to the carabao upgrading program of PCC for the sustainable growth of our livestock industry,” Pelayo said.

In the “nagnegosyo” (innovative entrepreneurs), businessmen highlighted and promoted their carabao-based enterprises and their products out of carabao’s milk, meat, and hide.

Leoncio Callo of Science City of Muñoz, Nueva Ecija showed to the participants the annual sales and income of Dairy Box Delicatessen and how they continuously improve their products; Arturo Tabbu of Tuguegarao City, Cagayan shared the history of the Lighthouse Cooperative and how they come up with their products from carabao’s meat and hide such as “Chicha-rabao”, carabeef tapa, longganisa and others; Prof. Dana Vera Cruz of Central Luzon State University described the innovative reason behind the production of the internationally-recognized tilapia ice cream; Jesus Mateo of Sta. Maria, Bulacan shared the humble beginning of their family business in food products and meat dealership; Joel Morales of San Agustin, Isabela gave a testimony on how his crossbred carabaos are called upon to power “karyada” every cropping season and the income he gets from this; and Ariel “Aying” Viñas of Cabiao, Nueva Ecija narrated how he started his

pastillas business and how he made it to be dubbed as the “king of pastillas-making in Southern Nueva Ecija”.

“When I decided to start my own pastillas business, I wanted to make something distinctly Aying’s. Most of the businesses started small. A person must first recognize his/her potential and believe that he/she can start even with a small capital. Others made it and so can you so long as you use whatever talent you have. Just like an aphorism, ‘God helps those who help themselves’. All we have to do is trust Him and ask for His will to be done,” Viñas shared.

On the other hand, for the “nagtagumpay” (rising above subsistence), dairy farmers attested how the dairy carabao program benefitted their families. A video material presented their stories on how their children were able to graduate from college thru the help of dairy carabaos.

The two-day event was attended by some 500 dairy farmers, partners, businessmen, local government officials and representatives from various government agencies and private organizations that are actively involved in the implementation of the CDP being carried out by PCC. 

**nagsipag.**  
**nagnegosyo.**  
**nagtagumpay!**

#NATIONALCARABAOCONFERENCE2016





# Dairy farmers practice milk quality assurance, screening tests

BY ZANE FRANCIS ALEJO



The participants while doing the lactometer test, which is one of the hands-on exercises during the “Refresher Course on Milk Handling and Quality Control.” Lactometer test is performed to find out if the milk is adulterated with water.

**The PCC National Impact Zone (NIZ) conducted a refresher course on milk handling and quality control titled “Milk Quality and Safety Assurance from Farm to Milk Processing Plant” last October 18 at the PCC national headquarters in the Science City of Muñoz, Nueva Ecija.**

The said training was funded by the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) - under the project 4 component of the research program “Enhancing Milk Production of Water Buffaloes through S&T Interventions”.

Participating in the course were 15 dairy farmers, staff members of the NIZ, and dairy cooperative members. The dairy farmer-participants are those who own five or more head of dairy carabaos and producing at least 10 liters of


milk per day.

The course was conducted because of the low milk quality and lack of skilled quality control personnel in the village-based milk collection centers (VBMCC) established by PCC. According to the organizers, the course was prepared as an additional assistance to the dairy cooperatives to help them maintain the quality of their milk produce during processing.

Lectures and hands-on exercises were the modalities of learning used in the training.

Mina Abella, the project leader of this component, discussed how to maintain milk quality along the supply chain. On the other hand, Frederick Bacani, PCC project staff, explained the milk quality evaluation and standards including milk sampling, milk quality test, preparation of 60% Ethyl Alcohol and table of specific gravity of milk.

The second part of the course was a hands-on training on milk evaluation led by Daisy Flores, PCC project staff. The participants were asked to perform sampling and platform tests including measurement of temperature, organoleptic test, Alcohol Precipitation Test (APT), Clot on Boiling Test (COB), lactometer test, acidity test, and titratable acidity test (using pH meter). The participants were also given workshop on proper milk recording such as entering milk test results on a logbook.

“We are very thankful to PCC for coming up with this kind of program for dairy farmers. This will really help us produce good quality milk for the benefit of our business and the consumers,” Emily Velasco, one of the participants of the course, said in Filipino. 

# Dairy farmers undergo training on homegrown forage production

BY MA. CECILIA IRANG



Participating dairy farmers in the training on “Science-Based Production of Grasses and Legumes for Sustainable (year-round) Supply of Fodder” are ready to establish their own forage gardens with these planting materials from PCC.

**Thirty dairy farmers gained additional knowledge on the backyard production of forages to support the nutritional requirement of their buffaloes thru a two-day farmers’ training on “Science-Based Production of Grasses and Legumes for Sustainable (year-round) Supply of Fodder” last October 10-11 at the PCC national headquarters, Science City of Muñoz in Nueva Ecija.**

The said training is in line with the project 1 component of the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) titled, “Development of Feeding Protocols and Practices to Support the Nutritional Requirements of Dairy Buffaloes”.

The project, which was funded by PCAARRD and implemented by PCC, aimed to address the issue on feed scarcity by providing assistance in the form of technical and practical trainings to dairy buffalo farmers in order to help them

plan out and implement a sustainable homegrown grasses and legumes plantation.

“Forage supply for feeding buffaloes is one of the major problems that affect the success of the dairy farmers especially their income,” Dr. Daniel Aquino, project leader and center director of PCC at CLSU, said.

“Majority of farmers at the national impact zone practice different feeding systems depending on the number of their buffaloes. Those who have more than five dairy buffaloes are becoming aware of the importance of good nutrition, thus, they adopt forage production by establishing a forage garden using improved grasses.” Dr. Aquino added.

According to him, with the introduction of Super Napier (Pakchong), Molato, and Mombasa including some improved legume species, the dairy farmers are now encouraged to establish a forage garden in their respective areas.

PCC acting executive director Dr. Arnel Del Barrio, on the other hand, shared the efforts and interventions of PCC in addressing the problem of dairy farmers in marketing and distribution of milk. He said marketing also plays a vital role in persuading farmers to practice proper feeding management.

“The key to health improvement among dairy buffaloes is in the hands of caretakers like you,” Dr. Del Barrio told the dairy farmers.

“With good feeding, management, and breeding, you are sure to boost your animals’ milk production. You just focus on the production and we, at PCC, are doing interventions such as the institutionalization of milk feeding program and establishment of products’ outlets. When you have a ready market, you will definitely find feed resources for your buffaloes to maintain their good body condition and milk yield,” he emphasized.

He added that in 2017, PCC will take on a new role to monitor the feeding systems of dairy farmers. Key personnel of PCC dedicated for this purpose, he said, will conduct an actual visit to the farms of dairy farmers and provide suggestions to improve their feeding systems.

“We are targeting 50 farmers to be visited next year to help them with their animal nutrition problem. It will be consultative. We will approach you to hear your concerns then we will agree on solutions,” he said.

The training involved farmers from the different cities and municipalities in Nueva Ecija. The selection of the participants was based on their current number of animals, interest and commitment to participate, readiness to utilize available



# Dairy farmer-entrepreneurs train on milk soap making

BY MA. CECILIA IRANG



**Buffalo milk-based soap entrepreneur Nerlita Gonzales (in black polo shirt) shares the know-how on soap making to the participants.**

**Dairy buffalo farmers in Luzon can now expand their dairy enterprise by entering a new venture in soap making. A training on this was organized by the PCC Carabao-Based Enterprise Development (CBED) last September 30 at the PCC national headquarters, Science City of Muñoz in Nueva Ecija.**

Carlo Tienzo, CBED support staff and one of the lead organizers of the training, said farmer-entrepreneurs should learn how to expand their product line by exploring other value-adding technologies such as the production of milk soap.

"It is actually marketwise because milk soap is already found to be highly saleable as more consumers prefer to buy environment-friendly and natural products. This venture is also sure to give them additional source of income aside from the daily cash that they earn from the sales of raw milk and other milk products," he said.

Couple Michael "Tj" and Nerlita Gonzales of Baliuag, Bulacan, owners and innovators behind the Kala Milk soap, were tapped as resource persons for the training.

Mrs. Gonzales shared the appropriate formulation for each bar of soap and the ingredients to make one. She demonstrated a stepwise process in soap making from weighing the ingredients to pouring the mixture into molding tools, curing, cutting, and finally, packaging.

The participants also went through practical and hands-on exercises to actually experience the process. Aside from the practicum, they were also taught on how to examine the finished products for quality, calculate simple cost and returns, and prepare simple re-entry plan. The re-entry plan served as basis for the provision of a starter kit, which included some

## PCC researchers learn technical know-how on molecular phylogenetics

BY MA. CECILIA IRANG

**Researchers of PCC gained better understanding of the practical applications of molecular analysis thru various methods and techniques discussed in-depth in a recent three-day "Workshop on Molecular Phylogenetics" held last September 12, 19, and 26 at the PCC national headquarters, Science City of Muñoz in Nueva Ecija.**

"These methods and techniques can be utilized to further characterize the different varieties of carabaos for whatever purpose it may serve the PCC. For example, we can use this method to identify the relatedness of its different varieties whether species-level or subspecies level for breeding, genetic variation or other purposes," said Dr. Ian Kendrick Fontanilla, who served as the resource person.

Dr. Fontanilla is an associate professor from the Institute of Biology of the University of the Philippines-Diliman.

During the workshop, the PCC researchers were exposed to the practical application of various statistical tools and molecular programs for the analysis and interpretation of phylogenetic relationship of species particularly on livestock. A series of lectures and hands-on computer exercises using various programs and statistical tools to analyze sequences were done to achieve this.

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## Dairy farmers...

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resources including their forage area for the implementation of the project and promptness to gather record and share relevant data that will be generated from the project.

The two-day training comprised of lectures, workshop on calculation of annual forage requirement and area to be established, and actual demonstration on land preparation and the proper way of planting grasses and legumes. After the training, the participants were also given planting materials to start establishing their forage areas. The volume of planting materials provided to them was based on the area required to support the year-round forage requirement of the number of animals they raise or maintain.

The second batch of the two-day farmers' training involving another 30 farmers is set to be conducted in November. 

## Dairy farmer...

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of the important ingredients in soap making.

"We've been into the soap making business for six years and I can say that it is truly a viable milk-based enterprise as long as you are persistent and consistent. Our secret is the appropriate formulation of ingredients. You should start formulating your own now so that you will have something to give as presents for the coming holiday season. If your friends will like it, that's an opportunity for you to consider selling," Nerlita said.

Mr. Gonzales, on the other hand, said their business is also fostering an advocacy that aims to support the education of dairy

farmers' children in Baliuag, Bulacan. For every sale of Kala Milk Soap, a portion goes to the educational fund.


"Kala Milk Soap is the first-ever bath soap made from carabao's milk and with the best ingredients. It does not contain harsh chemicals and toxic ingredients, making it safe for the environment. Our family also sources the main ingredient from local farmers," Mr. Gonzales said.

Scientific studies have already proven that milk contains proteins which help soften and moisturize the skin. It also has lactic acid, which contributes to maintaining the skin's natural fairness. Milk is also rich in vitamins A, D, and E which further nourishes the skin. In addition, it has a whitening effect which is brought about by the way it regulates the production of melanin (a natural substance in the skin that causes the skin to darken).

Meanwhile, Cynthia Correa of Eastern Primary Multi-Purpose Cooperative in San Jose City, Nueva Ecija, expressed her thoughts about the significance of the training to their cooperative.

"The training is important for us to maximize the use of our raw milk. Aside from the processed food products from carabao's milk, we can now also use our milk for soap products. It will also be an additional source of income for the farmers and their wives.

We will definitely try this venture and as a matter of fact, after this training, we are going to buy the needed ingredients and equipment for soap making," Correa said in Filipino.

Two batches of the one-day training are set to be conducted for dairy farmer-entrepreneurs in Visayas and Mindanao in October. 

## PCC researchers...

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PCC Senior Science Research Specialist Lilian Villamor said the workshop helped PCC researchers to have a better understanding of aligning data sets and phylogenetic analysis using different tools, software, or programs and critically interpreting these data.

"We are now more equipped and knowledgeable in constructing species phylogeny inference and we are able to interpret the evolutionary relationship of target species," Villamor explained.

According to John L. Gittleman of the University of Georgia's Odum School of Ecology, phylogeny is the history of the evolution of a species or group, especially in reference to lines of descent and relationships among broad groups of organisms.

It encompasses construction of phylogenetic trees that are widely used to describe relationships among species in the tree of life. The approach to understand and establish species identification takes avail of the molecular phylogenetics as a tool for genome comparisons.

The said workshop was conducted by PCC thru its Research for Development Division (RDD).

RDD chief Dr. Annabelle Sarabia said the workshop will help participants gain knowledge on basic approaches in the identification of relationships among species and taxa and will be useful in their research activities and related undertakings. 



# PCC GIP holds 1st AI Congress in Northern Luzon

BY PAUL JOHN VILLAMOR



The first AI Congress was attended by 156 technicians from PCC, local government units, and the private sector.

**The national Genetic Improvement Program (GIP) of PCC recently launched the 1st Northern Luzon Artificial Insemination (AI) Congress at Mariano Marcos State University (MMSU) Training Center in Batac City, Ilocos Norte last September 5-7.**

Bearing the theme "Defining the Roles and Standards of an Artificial Insemination Technician in National Livestock Genetic Improvement and Enterprise," the AI Congress aims to discuss issues and concerns pertaining to AI program implementation and to plan-out strategies on how to increase the number of AI services and improve its success rate.

PCC acting executive director Dr. Arnel del Barrio emphasized that the objective of the congress is to enhance the appreciation of AI technicians about their work and that their contribution in the success of the GIP is crucial.

Hosting this AI Congress, PCC at MMSU director Grace Marjorie Recta said the three-day seminar is an avenue for AI technicians to acquire broader understanding and appreciation of their role in PCC's efforts

to genetically improve the Philippine carabao.

According to Recta, the congress is a combination of a refresher course (lectures) and a lessons learned (sharing of experiences) methodology led by the best AI technicians in northern Luzon to inspire the other participants.

This learning method ensures that the participants get richer knowledge upon completion of the seminar.

Among the pool of experts from PCC who served as lecturers were Dr. Edwin Atabay, Scientist I, who discussed the standard protocol in the actual AI practice and advances in AI technology; Dr. Ester Flores, PCC GIP national coordinator, who was the resource person on carabao breeding program and sire directory; and Dr. Thelma Saludes, officer-in-charge of PCC at University of the Philippines Los Baños (PCC at UPLB), who explained semen processing and handling.

The program was highlighted with the sharing of best practices on AI program implementation among other PCC regional centers.

PCC at Central Luzon State

University (CLSU) AI program coordinator Dr. Fe Venturina shared the case in Region III, on how the AI diffusion rate was increased; Mr. Jose Canaria, counterpart of Dr. Venturina at PCC at UPLB shared the status of implementing the AI program in Regions IV-A, B, and V; PCC at UPLB CBED coordinator Ms. Anna Reylene Montes shared "From AI to Enterprise: The Experience of Local Dairy Farmers in General Trias, Cavite and Rosario, Batangas; and Dr. Caro Salces, PCC at Ubay Stock Farm center director, explained how uterine flushing improved the success rate of AI in Bohol.


Moreover, PCC operations chief Mr. Honorato Baltazar discussed the role of AI technicians in PCC programs, and PCC at Cagayan State University center director Prof. Franklin Rellin explained the stipulations in the AI contract.

National Gawad Saka Awardee for 2012 Mr. Alex Pasion inspired the 156 participants attending the congress about how he met success through AI.

Pasion was hailed in 2015 by PCC at MMSU as outstanding Village-based Artificial Insemination Technician (VBAIT) among its roster of VBAITs for seven months.

"From tricycle to sarao (jeepney), I now have my own Hyundai Starex," Pasion proudly testified his story of success. "I just want to say, there is a bright future here [AI]."

Two panel discussions addressed issues on the standards for AI practice, commitments for higher AI diffusion rate and herd build-up.

The Mindanao edition of the AI Congress is set on September 18-21. 

# Twin benefits foreseen in milk supplementation program for day-care pupils in Aliaga town

BY MERVALYN TOMAS



Proper nutrition is key to healthy and vibrant schoolchildren. (Photo by Dr. Daniel Aquino)

**Twin benefits, for day-care pupils and dairy carabao farmers, are foreseen in the milk feeding program launched recently in Aliaga, Nueva Ecija under the collaboration of three government units.**

The program, which had its soft launching last November 28, will provide a flow of processed milk to a total of 1,121 pupils, aged three to five years, for four months.

An official involved in the program said it will also provide the added benefit of supporting and promoting the livelihood of carabao farmers as the commodity would be sourced out from the milk collected by the dairy farmers from their dairy carabaos.

The undertaking is a joint effort of the Philippine Carabao Center (PCC) in partnership with the Department of Social Welfare and Development (DSWD) and the local government unit of Aliaga town.

“This program aims to partly address the nutritional requirements of day care pupils and improve their nutritional intake as they grow up,” Dr. Daniel Aquino, Center Director of PCC at Central Luzon State University (PCC at CLSU), said during the launching of the program.

The DSWD committed to allot a fund of Php1,479,720 while PCC will deliver the milk products to the cooperating Day Care Centers.

Ma. Theresa Sawit, PCC Senior Science Research Specialist, said that they have capacitated the Nueva Ecija Federation of Dairy Carabao Cooperatives (NEFEDCO) to provide the processed milk. It will deliver the supply needed by the children for 120 days.

Armando Silva, provincial coordinator of the sustainable livelihood project of the DSWD in Region III, on the other hand, said their department is

committed to provide continuing assistance for the dairy farmers for their sustainable livelihood source.

He expounded that the meat and dairy products, as well as carabao draft power, are economic opportunities for the farmers tending them.

Sawit further explained this particular program includes nutrition education for the children. She said where infographics are to be printed out and posted on classroom walls for information dissemination. Teachers will be actively involved in the program as they commit one session per month in their class to discuss the importance of milk in children’s proper nutrition.

Dr. Edgardo Carlos of Aliaga’s Rural Health Unit ensured that the weight and height of the children will be measured on a monthly basis to monitor the improvement in their nutritional status.

The parents of the children, who were visibly elated about the program, expressed their gratitude to PCC, DSWD, and to the Aliaga LGU for extending their help in ensuring the nutritional welfare of their children.

“We are lucky that our municipality has been chosen as one of the beneficiaries of this program,” Gia Javaluyas, a mother and the wife of Erwin Javaluyas who is president of the Aliaga Association of Barangay Captains, said. 