

Roundup

OFFICIAL NEWSLETTER OF THE PHILIPPINE CARABAO CENTER

PCC vets, researchers get hands-on training on RTUS for buffaloes

BY MA. CECILIA C. IRANG

“We can now avoid slaughtering potential breeder animals by evaluating their carcass trait through real-time ultrasound scanning,” Dr. Ester B. Flores, national genetic improvement program (GIP) coordinator and head of the Genomics and Bioinformatics Unit of the Philippine Carabao Center (PCC), recently announced as regards the benefit of this novel technology.

The announcement was made during a training on “Real-Time Ultrasound Scanning (RTUS) of Carcass Traits on Live Cattle and Buffaloes” held January 25-29 at the PCC National Headquarters and Gene Pool in the Science City of Muñoz, Nueva Ecija.

In the Philippines, breeding values for carcass trait cannot be directly estimated because the animal has to be slaughtered first before the “eye” muscle area can be determined. Therefore, for meat-type animals, breeding values are estimated based on growth traits of its half sibs and progenies which is a long and extractive process, according to Dr. Flores.

In other countries such as North and South America, Europe, Australia, Japan, and Korea, the RTUS has already been used



Dr. Wolcott guides Dr. Abraham Tandang (right), Farm Superintendent II of the Philippine Carabao Center (PCC) at University of the Philippines Los Baños; and Mr. Ronaldo Salazar, science research assistant of PCC at Central Luzon State University (left) as they perform RTUS using the breedplan RTU measurements on carcass traits.

routinely and extensively on beef cattle. A first for the Philippines, it

“The increase in meat production efficiency and quality would hopefully translate to better incomes for thousands of buffalo raisers in the country.”

**—Dr. Ester B. Flores
 Head, PCC Genomics and Bioinformatics Unit**

is only this time that this technology will be used on buffaloes.

Six PCC veterinarians and two research staff members whose

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Dr. Matthew Lee Wolcott (in cap), a visiting scientist from the Animal Genetics and Breeding Unit of the University of New England and performance beef breeders of Australia accredited ultrasound scanner, served as the resource person for the training. He provided a series of lectures on ultrasound scanning and actual demonstrations on scanning bovine species for carcass traits.

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works are related to breeding and genetic improvement comprised the participants of this training.

“The select participants came from PCCenters that are catering large herds. These stations are most likely to do research on meat quality traits,” Dr. Flores said.

The training, organized by the Genomics and Bioinformatics Unit of PCC, aimed to inform and familiarize participants on how to use the RTUS and analyze resulting data to determine potential breeder animals for growth, fertility, and carcass traits.

Dr. Flores said this is another innovation in the selection of carabaos to increase productivity and improve the genetic potential of Philippine water buffaloes. She added this is also an intervention to improve the quality of meat and milk.

“The increase in meat production efficiency and quality would hopefully translate to better incomes for thousands of buffalo raisers in

the country,” Dr. Flores stated. She added that only male buffaloes are scanned for fattening purposes while female buffaloes will only be scanned strictly for research and breeding purposes.

The training provided hands-on exercises on live animal ultrasound scanning of the eye muscle area, and pregnancy diagnosis.


Dr. Matthew Lee Wolcott, a visiting scientist at PCC from the Animal Genetics and Breeding Unit of the University of New England and performance beef breeders of Australia accredited ultrasound scanner, served as the resource person for the training. He provided a series of lectures on ultrasound scanning and actual demonstrations on scanning bovine species for carcass traits.

In the five-day training, Dr. Wolcott specifically discussed topics on scanned traits and trait definitions, RTUS measurement landmarks, accuracy of bovine body composition scanning,

carcass yield estimation from live measurements, RTUS proficiency testing, breedplan and breedplan traits, breeding program design, necessity or appropriation of breedplan accreditation, and genetic evaluation of carcass traits in the Philippines.

During the hands-on exercises, the participants were grouped into three. Each group performed RTUS on more than 70 buffaloes using the breedplan RTU measurements on carcass traits such as P8 fat depth, P8 fat depth + hide, rib fat depth, rib fat depth + hide, and eye muscle area.

“This exercise aims to determine which bull grows faster and has more meat because some animals might grow very fast but might not necessarily have more carcass yield,” Dr. Flores explained.

The participants were evaluated based on the repeatability and accuracy of their scan results compared to the results obtained by Dr. Wolcott in the same procedure. 



“As you hone your skills as researchers, do not forget about how you can contribute best to your country. You may gain experience from abroad but always make sure to come home and serve your motherland.” —USec. Guevara

BY ROWENA G. BUMANLAG

USec Guevara inspires young PCC researchers


BY ROWENA GALANG-BUMANLAG

In a random visit to the agencies being supported by the Department of Science and Technology (DOST), Undersecretary for Research and Development Amelia P. Guevara briefly cruised at the Philippine Carabao Center (PCC) National Headquarters and Gene Pool last February 5.

USec. Guevara was toured by PCC top personnel at the Milka Krem where carabao's milk products such as mozzarella, bocconcini, kesong puti, pastillas, yoghurt and fresh milk were served in the delight of the visiting party. She was ushered thereafter to the Livestock Innovations and Biotechnology Center where she was briefed about the PCC program in a video presentation and the completed and ongoing researches at PCC being funded by the DOST's Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD).

Through the years, PCC has been a good recipient of DOST-PCAARRD's generosity by way of research and development grants along genetic improvement and carabao-based enterprise development programs.

Currently, there are five ongoing projects in feeding management, breeding and genomics, and interdisciplinary (bundled) research program and one completed study in animal health and biosafety.

In her grateful appreciation to PCC's warm hosting, USec. Guevara left a message to the young researchers of PCC: “I can see myself in you when I was just a fledgling researcher doing the same thing as you do now in your respective laboratories. As you hone your skills as researchers, do not forget about how you can contribute best to your country. You may gain experience from abroad but always make sure to come home and serve your motherland.” 

PCAARRD-PCC R4D Projects

BY SHEKINAH L. PERIDAS


Long-time research and development partners Philippine Carabao Center (PCC) and Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) begin the implementation of five projects under the Department of Science and Technology-PCAARRD funding in an inception meeting held last February 10 at the PCC National Headquarters and Gene Pool, Science City of Munoz, Nueva Ecija.

These projects are all under the “Enhancing Milk Production of Water Buffaloes through S&T Interventions” program that aims to improve the local dairy industry through the development and application of practical technologies and innovations.

Said inception meeting was initiated by the Livestock Research Division of PCAARRD as the program coordinator and participated in by the project leaders and support staff.

The objectives, methodology, expected outputs and deliverables, and budgetary requirements of the project components were discussed.

A quick visit to a project site in San Agustin, Isabela was conducted after the said meeting to gather ideas on how potential non-government organizations (NGO) and farmer partners view the project and their expectations from it.

This PCC-PCAARRD collaboration ultimately aims to increase the annual milk production of purebred dairy buffaloes in the PCC National Impact Zone in Nueva Ecija from 500,000 kg to 2,000,000 kg and of crossbred buffaloes in San Agustin, Isabela from 17,000 kg to 190,000 kg in the duration of program implementation. 



“Over the past several years, the Philippine Carabao Center (PCC) only applies external knowledge management (KM) tools to promote its program and services. Internal KM (thru our Local Area Network) is also happening although some of us may not be fully aware of it. In both external and internal KM, the constant challenge is how to codify or document tacit knowledge and make it more explicit to enable us to act on it and to fully utilize its benefits”.

This realization was verbalized by Dr. Eric P. Palacpac, chief of PCC’s Knowledge Management Division (KMD), in his closing message during the recently held, “Knowledge Management Workshop on Cross-regional Learning and Thematic Communities of Practice (CoP)”, last February 15 to 17 at the Park Inn Hotel in Mabalacat, Pampanga.

Said workshop was facilitated by Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) as the service provider of the agency for capability building and strengthening partnerships in Carabao Development Program (CDP).

The Carabao-based Enterprise Development (CBED) under the CDP, one of the banner programs of the PCC, is focused on the establishment of village enterprises that promote cooperative development, participative decision-making, and harnessing of potentials for income generation.

KM4CBE or Knowledge Management for Carabao-based Enterprises is a novel approach of the PCC to institute a systematic documentation and use of knowledge across the PCC network.

Dr. Serafin Talisayon, the recognized “father of KM” in the Philippines, facilitated the workshop.

“KM, as defined by most of KM gurus, globally, involves a systematic process of generating, identifying, retrieving, storing, and sharing of knowledge assets to enable effective action. Knowledge is only knowledge if it is actionable by individuals or groups. KM is a very important tool if what the agency desires is achieve gains the most effective and efficient way,” Dr. Talisayon said.


“Knowledge has also two forms: tacit and explicit,” he further explained. For an institution to be more effective in implementing its

target objectives, it has to perform the right combination of tacit and explicit knowledge”.

Dr. Talisayon differentiated tacit and explicit knowledge: “Tacit knowledge is unrecognized, unexpressed or undocumented knowledge, such as expertise, indigenous knowledge, undocumented work processes while explicit knowledge is documented, encoded or recorded knowledge including manuals, hardware and software”.

Dr. Alexander G. Flor of UP Open University, Dr. Maria Celeste H. Cadiz, and Ms. Rosario Bantayan, also from SEARCA served as resource persons and moderators.

A series of other workshops on KM4CBE are scheduled this year. The next KM workshop would be on “KM Writing on Effective Knowledge Products” to be conducted in April in Batanes.

The activity was participated in by 41 staff members of PCC across its 13 networks. PCC’s top officials that include its center directors, division chiefs and unit heads from its national headquarters, realized the importance of KM in the implementation of PCC’s programs, services and mandate. 

R&D challenges in the country taken up in S&T forum

BY MA. CECILIA C. IRANG

“Without research, application of the latest innovations and technologies in biotechnology wouldn’t be possible.”

Dr. Arnel N. Del Barrio, acting executive director of the Philippine Carabao Center (PCC), emphasized this need for research for development in his welcome message on a science and technology forum held last February 19 at the PCC National Headquarters and Gene Pool, Science City of Muñoz, Nueva Ecija.

Said forum is a joint activity of PCC and the Coalition for Agriculture Modernization in the Philippines, Inc. (CAMP), which is a non-profit organization comprised of individuals using their time and money to help improve agricultural outputs in the Philippines.

Dr. Ruben L. Villareal, National Academy of Science and Technology (NAST) academician and former chancellor of University of the Philippines (UP) Los Banos, initiated the conduct of forum which was hosted by PCC.

“My motivation is very simple and that is to modernize Philippine agriculture. Since this is a big science community, if we attract some of you to become members of this CAMP I think we’ll be doing something great for our country. If through this forum, you will have a clear understanding of biotechnology, you will be convinced to serve the country by joining the CAMP and at the same time you will apply for the science career system, then I would say that our mission of coming here is not in vain,” Dr. Villareal declared.

The principal purpose of the forum was to tackle current issues on research and development (R&D) in the Philippines.

Among these are: Understanding the Supreme Court Ruling on BT Eggplant and Its Implication to Biotech Programs, which was presented by Dr. Eufemio T. Rasco, NAST academician and former executive director of the Philippine Rice Research Institute (PhilRice); and Modernizing the Philippine Agriculture presented by Dr. Benigno D. Pecson, CAMP president and former president of Biotech Coalition of the Philippines.

“We want to understand the Supreme Court ruling on BT eggplant because here in the Science City of Muñoz we are working on biotechnology but not necessarily on genetically modified organism (GMO). Thus, we want to understand the possible implication of this to our R&D program,” Dr. Del Barrio said.

Dr. Rasco’s presentation was on the recent decision of the Supreme Court to permanently stop research on Bt eggplant, declaring DA Administrative Order No. 8 (AO8) null and void, and temporarily stopping the whole range of activities on research, development and utilization of GMO technology. This decision, according to him, tends to perpetuate existing hazardous practices for agricultural pest control.

The AO8 has a proven record of safe and effective use for the past 12 years. Because of AO8,


the corn, livestock and poultry industries have become globally competitive, and the farmers’ incomes have increased.

“This activity will give us clear understanding on the recent issues and challenges of the R&D programs that might somehow affect the development of the agriculture industry,” Dr. Del Barrio stated.

The CAMP urges the Supreme Court to review its decision and allow Bt eggplant research to continue, considering that its assumptions are outdated and its information are based purely on ideology. The coalition also calls on the Supreme Court to allow AO8 to remain in effect until a new set of rules for GMOs is formulated so that R&D and utilization of GM technology can continue without interruption.

A quick presentation of biotechnology programs delivered by the different biotech coordinators of research agencies in the Science City of Muñoz such as PhilRice, Bureau of Fisheries and Aquatic Resources, Central Luzon State University and PCC was also part of the forum.

Other guests who attended the forum were Dr. Calixto M. Protacio, executive director of PhilRice; Dr. Roger V. Cuyno, secretary of CAMP and former chancellor of UP Mindanao; and Dr. Libertado C. Cruz, NAST academician and former executive director of PCC.

The forum was participated in by more than 60 researchers from various research institutions in the Science City of Muñoz, Nueva Ecija. 

DA A08

Provides for the rules and regulations on importation and release into the environment of plants and plant products derived from the use of modern biotechnology.



Deworming of animals in Brgy. Licaong, Science City of Muñoz.

Animal scientists tackle parasites in livestock

BY PAUL JOHN P. VILLAMOR

Animal scientists, researchers, and experts from the Philippine Carabao Center (PCC) and Philippine Society of Animal Science (PSAS) recently convened at the PCC national headquarters to proactively respond to increasing risks of parasite infestation among different livestock species. An animal outreach program was also held at Brgy. Licaong, Science City of Muñoz, Nueva Ecija last March 29.

Dr. Virginia Venturina, dean of Central Luzon State University (CLSU)-College of Veterinary Science and Medicine and Dr.

Elizabeth Molina, professor of College of Veterinary Science and Medicine and the director for extension of the University of Southern Mindanao (USM) were tapped as resource persons.

Dr. Venturina delivered a lecture on the topic: "Sustainable Control of Gastrointestinal Worm Infection in Goats Towards Increased Productivity." Dr. Molina, on the other hand, discussed the preventive measures and treatment of fasciolosis or liverfluke, which is one of the leading causes of mortality of carabaos and other ruminants.


The lectures were followed by an

animal medical mission at Brgy. Licaong Science City of Muñoz, Nueva Ecija. PCC veterinarians and CLSU-Veterinary Medicine students performed deworming in various animals such as carabaos, cows, goats and even dogs.

University of the Philippines – Los Baños professor emeritus Dr. Salcedo Eduardo was hailed as this year's lecture series honoree, a recognition given by PSAS to an individual who pulled off an outstanding contribution in the field of science and technology.

Dr. Salcedo's researches on livestock parasites, particularly on helminthology paved his way to becoming an academician in the National Academy of Science and Technology (NAST).

According to NAST, the works of Acd. Eduardo significantly contributed in the undertaking of sound control measures in the conservation and management of livestock animals consequently ensuring public health.

PSAS President Dr. Eric Palacpac, who is also the PCC-R4D national coordinator, said Dr. Salcedo's meritorious accomplishments make him well-deserving of the honor. He also assured the participants that the PSAS lecture series will continue to elevate the knowledge and skills of researchers and students in the animal and veterinary sciences discipline. 

Urdaneta City holds 1st Kalamilk fest

BY PAUL JOHN P. VILLAMOR

The City of Urdaneta in Pangasinan renews its support to local dairy farmers through the launching of the 1st Kalamilk Food Festival as an avenue to promote carabao-based dairy products. The festival coincided with the celebration of the City's 18th charter anniversary held at the Urdaneta Convention and Sports Center on March 15.

City Mayor Amadeo Gregorio E. Perez IV in his welcome remarks said the event was created to recognize the efforts of Urdaneta dairy farmers and to deliberately increase carabao milk production.

The local government of Urdaneta partnered with the Philippine Carabao Center (PCC) in the debut of Kalamilk fest which was attended

by representatives from local government and dairy cooperatives in Pangasinan, various private sectors, students of Urdaneta City University (UCU), and select day care pupils.

PCC Acting Executive Director Dr. Arnel N. Del Barrio expressed his support to the event saying

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that such an activity will inspire dairy farmers across the nation to sustain high carabao's milk production and encourage others to try the venture.

To sustain this effort, signing of a pledge of commitment to hold the festival annually was participated in by the following government agencies: Department of Agrarian Reform (DAR), Urdaneta City schools division office, Department of Labor and Employment (DOLE), Department of Science and Technology (DOST), Peter Manggaban, Department of Trade and Industry (DTI), and Josefina Bitonio of Cooperative Development Authority.

Milk feeding for day care pupils was also conducted along with demonstration of pastillas making. A milk drinking contest was participated in by daycare pupils, youths, and adults. The winner in each category received Php1,000 worth of Milka Krem products.

Lectures were conducted in the afternoon. Mina Abella, PCC carabao-based products development expert, served as the resource speaker on good milk quality. She discussed techniques on how to avoid milk spoilage for milk quality assurance which spells out higher income.

On the other hand, Ofelia Castillo of DTI-Pangasinan gave the audience industry tips on how to start a business.

The event organizers said the 1st Kalamilk festival ultimately aims to stir attention of the communities in Pangasinan on the social and economic benefits of dairy carabao production among raisers and their families. Through the annual event, they further explained, the dairy sector is expected to boost production in the coming years. 



(L-R) Dr. Fernando C. Sanchez Jr., UPLB chancellor; Dr. Arnel N. Del Barrio, PCC acting executive director; Dr. Enrico P. Supangco, dean of UPLB-College of Agriculture; Jose C. Canaria, PCC at UPLB officer-in-charge; and Oscar C. Mercado, OCM Steel Corporation contractor led in the groundbreaking ceremony, marking the start of the construction of PCC Milka Krem at UPLB on March 6.

PCC-UPLB soon to host Milka Krem branch

BY MA. CECILIA C. IRANG

True to its commitment of bringing marketing opportunities for the dairy farmers, the Philippine Carabao Center (PCC) is soon to establish a Milka Krem branch in its regional center at the University of the Philippines Los Baños (UPLB). The groundbreaking ceremony was held last March 6 beside the UPLB's Baker Memorial Hall.

The Milka Krem is seen as a buffalo dairy products hub committed to produce nutritious and healthy yet affordable dairy products.

The 300-square meter facility that will house a 300-liter capacity dairy processing equipment is expected to be completely constructed by July.


For more than 20 years, PCC at UPLB has made accessible to consumers buffalo dairy products, complementing cow's milk produced by the Animal and Dairy Sciences Cluster.

"PCC Milka Krem at UPLB will showcase profitable dairy

processing technologies and quality control protocols that can be adopted and commercialized by private entrepreneurs or the business sector," Dr. Arnel N. Del Barrio, PCC acting executive director, said.

The dairy outlet will offer deliciously fresh and health-promoting dairy products such as fresh milk, choco milk, coffee milk, fruit-flavored juices, white cheese, mozzarella, pastillas de leche, assorted flavors of yoghurt and yoghurt drink, and ice cream.

Supplies of milk will be sourced from the milk collection and processing plant and from assisted-dairy cooperatives of PCC at UPLB.

Also present during the groundbreaking ceremony were Dr. Fernando C. Sanchez Jr., UPLB chancellor; Jose C. Canaria, PCC at UPLB officer-in-charge; Dr. Enrico P. Supangco, dean of UPLB-College of Agriculture, UPLB Management Committee, and select staff from PCC at UPLB. 

PCC at 23 underscores F2F

BY MA. CECILIA C. IRANG



The Philippine Carabao Center (PCC) celebrated its 23rd founding anniversary last March 29-31 at the PCC national headquarters in the Science City of Muñoz in Nueva Ecija. This year's theme was: "F2F: Boosting Employees' Potential Toward Productivity".

In a video presentation showcased during the program to give the audience an appreciation of the theme, F2F or face-to-face was described as "a synergistic approach to outline and achieve performance targets through interfacing, collaborating or partnering between and among operating units and regional centers across the PCC network with other carabao development program partners".

"We are beyond the age of puberty which means we are now adults. This indicates that we should strengthen more our partnerships toward fruitful outcomes," Dr. Arnel N. Del Barrio, PCC acting executive director said.

PCC employees across the PCC network nationwide, officials from Central Luzon State University, and Philippine-Sino Center for Agricultural Technology, social entrepreneurs and interns from Gawad Kalinga (GK) Enchanted Farm, and some press people from media outfits in the province graced the occasion.

Antonio "Tony" Meloto, founder of GK, served as the guest of honor.

In an inspiring and motivational speech, he encouraged everyone in the audience to relate well with one another to boost each other's potentials. He said if this is done collectively, it will greatly contribute to the organization's better performance. He said GK is willing to sustain partnership with PCC in pushing forward social entrepreneurship in the countryside thru the production and marketing of carabao's milk. Through this, the vision of living the Filipino dream in our homeland is never a remote possibility.

Minda R. Diloy, this year's anniversary chairperson, motivated PCC employees in the same manner saying, "More focus should be placed on making each and everyone feel that work is more than just a job but a kind of work that has higher purpose, achieved thru sincere and meaningful face-to-face interactions such as those relationships we build with our partners."

As a result of meaningful F2F interaction, PCC's outstanding employees who have excelled in the performance of their respective duties were recognized during the anniversary program.

Dr. Caro B. Salces of PCC at Ubay Stock Farm was recognized as outstanding center director; Dr. Ester B. Flores, national genetic improvement program coordinator, as outstanding supervisor; Mario

M. Delizo, Project Development Officer II, as outstanding development officer; Excel Rio S. Maylem, Science Research Specialist II, as outstanding researcher; and Rogel dela Cuesta, Administrative Officer V, as outstanding support staff.

Each awardee received a cash prize of Php30,000, plaque of recognition, and a study tour grant abroad related to their respective fields of discipline.

The search for laudable employees was spearheaded by Dr. Liza G. Battad, chair of the Program on Awards and Incentives for Service Excellence (PRAISE) committee and chief of Planning and Information Management Division.

Other highlights of the three-day anniversary celebration included PCC-PSAS lecture series and animal medical mission, seminar on "Enriching Employee Engagement toward Enhanced Productivity" discussed by Success Coach Randy Esguerra, Employees' General Assembly, and recognition of PCC retirees.

The PCC was established on March 27, 1992 when then Pres. Corazon Aquino signed into law Republic Act 7307 or the Carabao Development Act of 1992. It became operational in 1993 when former Pres. Fidel V. Ramos launched the National Carabao Development Program. 