

Bubalus

Quarterly Newsletter of the Philippine Carabao Center

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FEATURES

In Zambales Thru the eyes of love springs community development

By Charlene Corpuz

The rich resource that is building up within the Sta. Catalina Farm in Botolan is gradually translating to become a hub of development in this local town in Zambales. **To page 22**

DA chief shares with carapreneurs strategies to level up agri sector

By Ma. Cecilia Irang

Dr. William Dar, the newly appointed secretary of the Department of Agriculture (DA), visited the Philippine Carabao Center (PCC) to share some of his “new thinking” strategies in the agriculture sector, which he once handled during the administration of Joseph Estrada.

In a program held on August 29 at the center’s national headquarters

in the Science City of Muñoz (SCM), Nueva Ecija (NE), the returning DA chief imparted with carapreneurs (a portmanteau derived from ‘carabao’ and ‘entrepreneur’) his schemes to achieve his twin objectives or strategies called “ani at kita” (harvest and income) for clients.

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Editor's Word



"Groundbreaking" if I may aptly summarize some of the subjects of stories in this issue of Bubalus.

Indeed, these past three months, we have witnessed what can be considered as pioneering and innovative in the ways the PCC implements its noble mandate.

In Bukidnon, the PCC@CMU has launched the very first Dairy Box outlet in the whole of Mindanao. Dairy Box is a model of how various products derived from buffalo's milk are offered to the public under the management of a PCC-assisted farmers' cooperative.

In Bohol, the PCC@USF in collaboration with DepEd and LGU-Ubay, piloted the Alternative Learning System (ALS) Education and Skills Training on Dairy Buffalo Production anchored on the Farmer Livestock School (FLS) curriculum.

Recognizing the unique roles of genders in rural development, the PCC also started mainstreaming GAD focal persons capacity development.

It also convened for the first time, the next generation of carabao-based entrepreneurs in the form of a youth camp.

In its R&D and technology transfer initiatives, there were also several firsts for PCC, e.g., application of ultrasonography in breeding for more tender and lean buffalo's meat and capability-building of farmers in producing sweet sorghum as an improved and versatile forage species.

All these are in support of newly appointed DA Secretary William Dar's "New Thinking in Agriculture", which we also devoted a feature article about, to highlight PCC's alignment with his eight-point agenda.

As PCC commits itself to this development paradigm, it will rely on its cadre of highly competent and dedicated human resources who are constantly reaping awards and recognitions, stories of which you will also read through the pages of this newsletter. These are solid proofs of how PCC practices its core values as a government institution.

Dr. Eric P. Palacpac

About the cover

Established in 2016, the Sta. Catalina Farm prides itself as an abode nurtured by its noble cause of providing livelihood opportunities to the hardworking Aetas of Botolan, Zambales.

Photo by **Charlene Joanino**



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Bubalus is a quarterly publication published by the Philippine Carabao Center that gives its readers new updates and inspiring stories happening in the carabao industry.

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PCC at CMU launches first ever Dairy Box in Bukidnon

By Jeson Candole

To widen, promote and increase the market of buffalo dairy products in the province, the Philippine Carabao Center at Central Mindanao University (PCC@CMU) inaugurated the first ever Dairy Box in Bukidnon at the Door 2, Echalico Building, Sayre Highway, Don Carlos, Bukidnon last July 26.

“This opportunity offered by the PCC to all carapreneurs and cooperatives within the locality to promote the dairy products was in response to imminent and growing demand for locally produced milk,” Dr. Lowell C. Paraguas, center director of PCC@CMU, said during the soft opening of the outlet.

According to Dr. Paraguas, the center will manage the outlet within a year, thereafter, it will be turned over to Muleta Side Buffalo Dairy Association (MUSBUDA) and

Don Carlos Buffalo Dairy Farmers Association (DCBDFA) as target beneficiaries.

Meanwhile, the main objective of the Dairy Box is to mainstream the locally produced and processed dairy products of its surrounding community. The outlet sells white cheese, pastillas, fresh milk, flavoured milk (ube, pandan, melon, and strawberry) and other consignment products.

Speaking before the members of MUSBUDA and DCBDFA, Leni Baylo, agricultural technician of Don Carlos shared that hardwork, determination and honesty are the keys to success in this kind of business.

“I hope that the associations will take this project seriously since PCC gave their full support and effort to assist them on how to market their dairy products strategically,” she

added.

Moreover, Hon. Rex Mercadera, vice mayor of the municipality of Don Carlos also graced the event and mentioned about the request of Dr. Paraguas to build a mini-processing facility for the associations.

“Putting up a mini-processing facility in the area is very essential to the associations for them to process their own products. We will give our 100% support for the sustainability of this project in our municipality,” Mercadera added.

More than a hundred people have attended and visited the outlet during the launch, which also witnessed the blessings of the two-storey building led by Reverend Father Angel Cumabig. The store is open to the public (Monday to Sunday) from 8am to 5pm.



These are some of the products that can be bought at the newly opened Dairy Box located in Don Carlos, Bukidnon. Photo by Charlene Joanino

PCC, stakeholders undergo CBIN planning

By Rodolfo Jr. Valdez



Some of the Carabao-based Business Improvement Network (CBIN) Project Stakeholders while crafting a strategic plan for the implementation of the said project. Photo by Reinaly Garcia

To establish strategic direction on Carabao-based Business Improvement Network (CBIN) in propelling an inclusive, sustainable, and highly competitive local dairy industry, Philippine Carabao Center (PCC) conducted the Stage 2 Strategic Planning Workshop on CBIN last July 22-24 in Davao City.

The planning course was participated in by more than 60 project stakeholders from the Provincial and Municipal Government Units and qualified cooperatives in the provinces of Davao del Sur, Davao Oriental, Compostela Valley, North Cotabato, and South Cotabato.

PCC Deputy Executive Director Dr. Caro Salces, along with other PCC staff, guided the participants through the different processes involved in crafting a strategic plan of the said project.

The activity served as an avenue in sharing ideas to Carabao Development Program, formulation of interventions that will pave the way for the increase in productivity to improve the implementation in Carabao-Based Enterprise, and identification of specific strategies in crafting a Dairy Development Network Organizational Plan in every province involved.

In this context, participants reviewed and analyzed their roles and responsibilities through a workshop on Stakeholders and SWOT analysis. They made and evaluated, through an Operational Plan, the needs in the first three years of the project and different indicators on the organizational, social, and economic aspects of agencies' operation.

"By conducting this activity, we can identify the necessary needs and efforts that we can share as a

counterpart in the project so that it becomes more participatory and achieve higher success rate," Jennifer Bretana, South Cotabato Planning Development Coordinator said.

Meanwhile, PCC@USM Director Benjamin John C. Basilio and CBIN Consultant Eduardo Macalandag simultaneously conducted a courtesy call and site surveillance in the provinces of North Cotabato, South Cotabato, and Davao del Sur.

"As we visited the different areas, we can see the positive response and support of every LGU to the project. Also, we can see the eagerness of the recipients as they actively participated in the initial stages of the project," Macalandag expressed.

The site evaluation was part of the preparation of the project to determine the readiness of every province and cooperative in the CBIN project.

Industry experts convene for 4th International Livestock Biotechnology Symposium

By Justine Joy Salvador

About a hundred researchers, scientists, international experts, and other distinctive guests in the field of livestock biotechnology attended the recently concluded 4th International Livestock Biotechnology Symposium.

The event, which was held at the University of San Agustin, Iloilo City last July 15 was organized and spearheaded by the Department of Agriculture-Livestock Biotechnology Center (DA-LBC) with the support of Philippine Carabao Center at West Visayas State University, University of San Agustin, and Department of Science and Technology - National Research Council of the Philippines Division XIII.

In keeping with the theme “Demand-driven Innovation for a Resilient Philippine Livestock Industry”, invited speakers from Japan, Thailand, USA and Philippines have presented their research findings and significant discoveries concerning challenges in livestock production, animal breeding, antimicrobial resistance, food-borne pathogens, and agricultural biotechnology program.

Dr. Claro Mingala, DA-LBC chief, said that the demand for

livestock resources is rapidly increasing at the global scale. This can be attributed to the growing population, urbanization, and economic development. He emphasized that research and development initiatives, and capacity building in these biotechnological approaches will contribute to the efforts in attaining food self-sufficiency and security in spite of escalating demand.

Ms. Marie Joy Christine Jumalon, project management officer of the DA's Biotechnology Program, mentioned that they are providing scholarship program to five universities (Central Luzon State University, University of Southern Mindanao, Visayas State University, University of the Philippines Visayas, and University of the Philippines Los Baños) and supported 64 scholars since 2014 in line with the need to have more scientists and researchers in the field of agri-biotech.

Symposiasts were given time to ask questions to the presenters during the open forum. One issue was raised for Dr. Yoko Kato of Kindai University about the perception of the consumers on the consumption of cloned animals. She stated that the public are still having a negative

insight about biotechnological products, which can be attributed to insufficient information to the society. She expressed that the people should be informed properly on the use and benefits of genetically modified products.

The last part of the event was dedicated to the media for the press conference and one question was asked for Dr. Arnel Del Barrio, executive director of Philippine Carabao Center (PCC). The query was about the influence of PCC in the Philippines and how is biotechnology interconnected with PCC. Dr. Del Barrio discussed that PCC has a total of 12 centers situated across the country and that there are more than a thousand of experts performing artificial insemination and crossbreeding intended for better and greater livestock production.

Overall, the symposium was an opportunity for all of the attendees to discuss and understand the issues and possibilities that our community can achieve through research and development with regards to safe and sufficient production of livestock, which is beneficial in promoting a resilient, productive and globally competitive livestock industry.



The delegates of the 4th International Livestock Biotechnology Symposium in a group photo. Photo by Jocel Dam Dolfo

PCC advances gender mainstreaming through GAD focal persons' capacity development

By Ma. Cecilia Irang



Husband and wife Nida and Carlo Abellanosa work hand in hand in preparing feedstuffs for their buffaloes.

Dedicated to provide quality products and services that are gender and development (GAD) responsive, the Philippine Carabao Center (PCC) capacitated its employees through a GAD training-workshop to serve as primary drivers of gender mainstreaming in the agency.

This, according to Ma. Theresa Sawit, PCC GAD Focal Point System (GFPS) Undersecretary and Senior Science Research Specialist, was the main focus of the training-workshop on Gender Sensitivity, Gender Analysis and GAD tools held last July 10-12 at the PCC National Headquarters and Gene Pool in the Science City of Muñoz, Nueva Ecija.

“GAD mainstreaming is not merely for compliance but an initiative to provide quality services to our women and men clients. It involves the integration of GAD perspective in all agency’s programs, activities, and projects,” she said.

She added that a tool known as Gender Mainstreaming Evaluation Framework (GMEF) is being used to show how well an organization performs gender mainstreaming in four entry points such as policies, people, enabling mechanisms, and programs, activities and projects (PAPs).

“Compliance with the policy, however,

would require capacity building mainly because none of the PCC’s GFPS members and program or project leaders have been oriented yet on how to use gender analysis tools designed for program or project implementation,” she said.

PCC invited Arlene Pascual, certified GAD trainer, to orient and train the participants on gender concepts and its application particularly on the use of gender analysis tools such as Harmonized Gender and Development Guidelines (HGDG) and the various checklists to mainstream GAD in all PCC programs, projects, and activities.

“Development is about attaining a full and satisfying life for all and it is a shared responsibility. You are all contributors to it,” Pascual said.

She emphasized that the development projects that PCC will implement should address gender issues by identifying gaps or differences between men and women and understanding why these gaps exist and persist.

PCC Executive Director Dr. Arnel Del Barrio, on the other hand, shared the agency’s compliance to the Magna Carta of Women (MCW) or RA 9710 and the General Appropriations Act (GAA) on formulating its annual GAD plans and budgets to mainstream gender perspectives in its policies,

programs, and projects by allocating at least 5% of its total budget to GAD activities.

“We have existing programs, trainings, and projects that involved men and women clients that’s why we didn’t really start from zero when it comes to implementing GAD activities but the problem is we still have to improve documentation so we can effectively analyze GAD-related data,” Dr. Del Barrio said.

“I can assure that we, at the top management, are very supportive of the GAD projects and programs. We will experience a lot of benefits if we start embracing the full context of GAD,” he added.

Dr. Del Barrio also underscored that carabao, which is the main commodity of the agency, is just a tool for development. It is a tool to help improve the lives of men and women farmers.

The training involved discussions, workshops, and action planning to institutionalize the use of HGDG in PCC’s programs, projects and activities cycle.

It was participated in by PCC’s GAD Focal Point System members, research and development program or project leaders, and ICT and infrastructure project leaders.

Newly trained facilitators gear up for FLS-DBP in Zambales, some provinces in Mindanao

By Charlene Joanino



Some participants of the Farmer Livestock School on Dairy Buffalo Production (FLS-DBP) Facilitator's Learning Workshop gain hands-on training on processing buffalo meat products.

Broader efforts in the conduct of FLS-DBP are expected to come into being as participants finished their stint at the Farmer Livestock School on Dairy Buffalo Production (FLS-DBP) Facilitator's Learning Workshop held from June 18 to June 28 at the Philippine Carabao Center (PCC) National Headquarters and Gene Pool in the Science City of Muñoz, Nueva Ecija.

In a span of 10 days, representatives from select local government units (LGUs), cooperatives and farmers from Zambales and Mindanao engaged in a series of lessons and hands-on activities on Dairy Buffalo Production from raising healthy and productive dairy buffalo to maximizing the benefits that can be derived from carabao-based enterprises.

"In FLS-DBP, we utilize an interactive type of learning that is not monopolized by the lecturers but something that encourages everyone involved to participate in," Dr. Eric Palacpac, chief of Knowledge Management Division (KMD), said.

A set of FLS-DBP modules co-created by the PCC's FLS-DBP committee with Ms. Anna Marie Alo, a pioneer FLS developer from the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development, served as guide in the conduct of the workshop.

FLS-DBP is a modality that offers technology options to farmers and lasts for about 34 weeks. It requires participants to have three milking buffaloes, animal shed, and to sign a voluntary pledge to attend the scheduled learning sessions.

Meanwhile, Dr. Arnel Del Barrio, PCC executive director, noted that FLS-DBP can help alleviate poverty by equipping participants with knowledge and honing their skills in dairy buffalo production.

"During the PCC's anniversary, a dairy farmer entrusted with a dairy carabao approached me and said that she is no longer a Pantawid Familyang Pilipino Program beneficiary because of her income in buffalo dairying. This shows the

impact of PCC's efforts," Del Barrio said.

He added that the dairy industry will further flourish by next year upon the full implementation of RA 11307 or the "Masustansiyang Pagkain para sa Batang Pilipino Act" that ensures market for dairy farmers. Under the law, milk was included in the national feeding program to fight hunger and undernutrition in the Philippines.

The first FLS-DBP facilitator's learning workshops happened in Nueva Ecija and Ilocos Norte in 2015 while from 2016 to 2017, the pilot batches of FLS-DBP from Guimba, Talugtug and San Jose in Nueva Ecija completed the training. Since then, FLS-DBPs and facilitator's learning workshops were conducted by PCC in partnership with LGUs and other government agencies in other parts of Luzon, Visayas, and Mindanao.

FLS-DBP facilitators Erwin Valiente, Rovelyn Jacang, and Charlene Corpuz of the KMD administered this FLS-DBP facilitator's learning workshop involving 21 participants.

Ubay LGU pilots ALS-Education and Skills Training on Dairy Buffalo Production

By Leinefe Aton

The Local Government Unit (LGU) of Ubay recently launched the country's first ever Alternative Learning System-Basic Education and Skills Training (ALS-BEST) on Dairy Buffalo Production.

ALS, being the flagship program of the Department of Education (DepEd), provides a viable mechanism to reach Filipino youth as well as adults who are unable to access or who have dropped out from formal schooling.

"This ALS-BEST is a modified ALS system that aims to produce completers who are not only able to catch up with basic education, but have also acquired technical competencies suitable for immediate employment," said Mario Limocon, Project Focal Person of the LGU during the launching program on June 8, 2019.

The municipality of Ubay, being the only LGU proponent of the program, selected the Dairy Buffalo Production as the skills training to be married with the system. This was after the result of series of consultation-workshops with different stakeholders in the town. The presence of Philippine Carabao Center at Ubay Stock Farm (PCC@USF) and its established programs and outputs helped a lot to hasten the drafting of the project proposal.

Gaudioso Calibugan, Agriculturist II of PCC@USF and one of the skills facilitators, said that carrying out the ALS-BEST program is very timely coinciding with the implementation of PCC's Farmer Livestock School on Dairy Buffalo

Production or FLS-DBP, of which he said, will be the guiding module for the skills training.

FLS-DBP, which originated from the PCC national headquarters, is a learning modality that offers technology options to farmers. It includes topics focused on dairy buffalo raising, feeding and health management, milk and meat processing, waste management and financial management. It is participatory, hands-on and interactive and conducted right at the farmers' locality.

"Originally, this FLS-DBP runs for more than 30 weeks, just in time when the academic requirements of the ALS module are completed," Calibugan added.

The ALS-BEST project is a collaborative effort with a total budget of Php2.7 million. The DepEd ALS- Office of the Secretary allocated an amount of Php1,074,645. This was transferred to the Development Academy of the Philippines (DAP) then to the proponent. The remaining Php1.6 million is shared among LGU-Ubay, PCC@USF, and DepEd-Bohol.

"There are 50 enrollees for this project coming from the different barangays in Ubay. They are out-of school-youths and adults who have not finished nor entered high school and with at least one carabao to start off," Limocon said.

"Aside from the academic lectures and skills training, it also has values and life skills interventions such as sports activities, festival of talents,

anti-drugs campaign, HIV/AIDS awareness, and lectures on climate change mitigation, risk reduction and management, and GAD/Child trafficking," he added.

Hon. Constantino Reyes, the municipal mayor of Ubay, expressed his full support, through Edwin Reyes, who represented him during the launching activity, as he believed that this effort could improve the livelihood of the Ubayanos.

On the other hand, Dr. Gundolino P. Bajenting, officer in-charge of PCC@USF, challenged the learners to do their best especially in ensuring their 100% attendance to all the sessions and maximize this privilege not just for their own sake but for their contribution later on to the local dairy industry once they started milking.

Assisting Limocon and Calibugan in the implementation of this project are: Amalia Cutamora of LGU as the admin assistant; Romeo Mariño and Rocelita Soria, ALS teachers; Elsa Hingpit of DepEd-Bohol; Leinefe L. Aton and Dr. Bernard Bacule, FLS accredited facilitators of PCC; Annabelle Jayco and Marissa Tuazon, staff members of Sustainability and Participation Through Education and Lifelong Learning (SPELL); Maxwell Cutamora of LGU Municipal Disaster Risk Reduction and Management Office (MDRRMO); David Cutamora and Benedicto Bicada of ALSC; staff from Philippine National Police (PNP) – Ubay; and other values and life skill resource persons which will be identified later on.

From seed to feed techno-transfer PCC trains farmers on sweet sorghum production as ruminant fodder

By Ma. Cecilia Irang

More than 150 farmers and ruminant raisers in Luzon gained technical know-how on sweet sorghum production management and practices for sustainable supply of feedstuffs during a Farmer's Field Day held last June 26.

The field day cum technology-transfer activity, held at the Philippine Carabao Center (PCC) National Headquarters and Gene Pool in Science City of Muñoz, Nueva Ecija, was in line with the National Sorghum Development Program (NSDP) launched by the Department of Agriculture (DA).

Dr. Candido Damo, technical consultant of DA's National Corn Program, which also oversees programs in sorghum and cassava, explained the rationale of the NSDP during his talk in the field day. He said that the goal of the program is to respond to the global demand for sorghum as livestock and poultry feeds and substitute for domestically grown corn.

He added that, for 2019, the DA is targeting 100,000 hectares for the cultivation and production of sorghum, mostly in ancestral domain areas owned by indigenous people.

The sorghum planting is part of the DA's Anti-Poverty and Greater Agricultural Productivity Program implemented through the Special Area for Agricultural Development (SAAD).

Dr. Damo also stated some good characteristics of sorghum by citing four "Fs" –i.e., it can be a reliable source



(Left photo) Sorghum Plant. (Right Photo) Charity Castillo explains to farmer participants the practice of chopping the sorghum plants using a forage chopper during the field day cum-technology-transfer activity held at the PCC National Headquarters last June 26. *Photos by Charlene Joanino*

of food, feed, fuel and fertilizer.

PCC Executive Director Dr. Arnel Del Barrio, on the other hand, talked about "Sorghum Production, Preservation and Utilization as Ruminant Feed", which was the main topic for the field day.

"I dubbed this field day as 'from seed to feed techno-transfer activity'. Everything started from a seed then after the next days, months, and years it will grow and become an additional source of feed or forage for our animals," he said.

He also encouraged the participants to plant sweet sorghum by explaining the field day's slogan: "Sa Sorghum, Sure ang Ani, Sure ang Pagkain, Sure ang Kita". He said that farmers can surely harvest 70 tons of sorghum per hectare and earn income for its low production cost per kilo. If fed to buffaloes, milk yield will increase because of sorghum's feed value.

Studies showed that sorghum is a drought-tolerant, hardy, easy-to-propagate and protein-rich crop, which can be used as an alternative raw ingredient for animal feeds. It could grow well in marginal areas requiring less water and rainfall. It can be harvested at every 85 days in three ratoons, a practice of growing a crop from the stubble of previous crop without replanting thus making it cheaper to produce.

Dr. Del Barrio added that after harvesting, sorghum can be fed as chopped fresh forage, silage, ingredient

in total mixed ration (TMR), and pelleted.

The field day comprised series of hands-on activities and actual demonstrations on several sorghum cultural management practices, which include planting, harvesting, chopping and ensiling, TMR preparation, and feeding. Meanwhile, the step-by-step procedures on sorghum production and its good characteristics were also presented in a video material produced by PCC's Knowledge Management Division.

Leoncio Callo, one of the farmer-participants, narrated some of the pointers he learned from the field day particularly about the different cultural management practices on sorghum production, processing and utilization.

"I believe that PCC really changes lives and we should all be grateful. PCC teaches us the proper cultural management starting from land preparation down to the harvesting for us to learn how we could improve further our feeding management to achieve a year-round supply of feeds for our buffaloes to earn more income," he shared.

The field day was organized by the PCC's Production Systems and Nutrition Section.

After the activity, the participants were provided with starter pack of sorghum seeds and production guide in planting sorghum for them to be able to start planting in their respective areas.



PCC@USM initiates ISO 9001:2015 awareness, RCA

By Rodolfo Jr. Valdez

To continue in ensuring quality products and services, the Philippine Carabao Center at University of Southern Mindanao (PCC@USM) initiated awareness seminar on ISO (International Organization for Standardization) 9001:2015 and workshop on root cause analysis (RCA) on June 25-27, 2019.

The three-day activity was part of a transition process as it was just certified as ISO 9001:2015-compliant in January 2019 after it had established its Quality Management System for the implementation of quality products and services that conformed with standard requirements.

Ms. Minda R. Diloy, IQMR and Ms. Thaleeya O. Santiago, DCO were invited as resource speakers who tackled the principles of Quality Management Services, Clauses of ISO 9001: 2015 and its differences

with ISO 9001:2008.

Meanwhile, lecture and workshop on the classifications, approaches and methods in identifying root causes were done. This allowed PCC@USM technical employees to identify the root cause of a given problem and made corrective actions that will help in eliminating nonconformities. The workshop on RCA was dubbed as a “tool in problem solving”.

It is further stressed that the ISO sets the requirements for the standardization of every institution in order to satisfy its clientele.

The said activity aims to value the importance of the interrelated participation of all employees, and to orient them on the general objective of ISO and its value to the institution. In addition, the activity was a step in the preparation for a third party ISO surveillance audit in October 2019.



ISO is a worldwide federation of national standards body to assess the organization's ability to meet customer, statutory and regulatory requirements applicable to the product, and the organization's own requirements. It promotes the adoption of a process approach when developing implementing and improving the effectiveness of quality management system aimed at enhancing customer satisfaction regarding quality products and services.

PCC at CMU gets ISO 9001:2015 certification

By Jeson Candole



TÜV Rheinland auditor Rhene Rose Zara (first from left) audits Dr. Elena Paraguas and two farm workers from PCC at Central Mindanao University (PCC@CMU) for their center's ISO 9001:2015 certification last May 2-4 in Bukidnon.

The TÜV Rheinland recently awarded the Philippine Carabao Center at Central Mindanao University (PCC@CMU) with ISO 9001:2015 Certification valid from July 5, 2019 to July 4, 2022.

The center received the official notice of results, Friday, July 5, including the attached copy of audit report. Mary Grace Balobalo, lead auditor together with Rhene Rose Zara led the Stage 2 Certification survey visit last May 2-4, 2019.

TÜV Rheinland is the accrediting company, which worked as an external auditor of the center. According to its website this company is an independent expert's stand for quality and safety for people, technology and the environment in nearly all aspects of life.

They also inspected the technical equipment, products

and services, oversee projects, and help to shape processes and information security for companies.

"This certificate is a proof that what we are doing is good. We will continue to strive harder for our clients who rightfully deserve efficient and effective service," said Dr. Lowell C. Paraguas, center director of PCC@CMU.

"This is also in response to Executive Order 605 of 2007, which directed all government agencies to adopt the ISO standards as part of the implementation of the government-wide quality management programs," he added.

The ISO 9001:2015 is focused on risk-based thinking wherein the organizations are now encouraged to use risk analysis to address challenges in their

business processes besides meeting the customer's expectations.

The scope of certification includes the following areas: Carabao crossbreeding and strengthening of water buffalo genepool; research for development; enterprise development (provision of social and technical trainings, artificial insemination, bull loan, animal health, semen distribution; supply of various products such as female buffaloes and processing and sales of milk and milk products).

The PCC@CMU's Quality Management System team was composed of Dr. Paraguas, Vicenta Canatoy, Quality Management Representative (QMR); Thelma Bagongon, Document Control Officer (DCO); Dr. Elena Paraguas, lead auditor and other key staff.



Three staff from the PCC composed of Bennielyn Tomas, Limuel Villasor and Jeffrey Lawrence Antolin (all wearing dark blue polo shirts in the middle) receive PCC's "Gallantry Award" plaque of recognition for efficient financial management at The Legend Palawan Hotel in Puerto Princesa City, Palawan last June 21. The award was given by the Government Financial Management Innovators Circle, Inc. (GFMIC) to PCC as part of recognizing the latter's efforts in full implementation of the Electronic New Government Accounting System (eNGAS) and Electronic Budget System (eBudget) across its regional centers.

PCC bags 'Gallantry Award' for efficient financial management

By Jeffrey Lawrence Antolin

The Government Financial Management Innovators Circle, Inc. (GFMIC), an association that promotes high standards in public management system, recently recognized the Philippine Carabao Center (PCC) for its efforts to fully implement the Electronic New Government Accounting System (eNGAS) and Electronic Budget System (eBudget) across its network.

The recognition called the "eNGAS/eBudget System Gallantry Award" was given during the GFMIC's 11th Annual National Convention held last June 18-21, 2019 at The Legend Palawan Hotel, Puerto Princesa City, Palawan.

The said award is given to

government agencies that consistently use the eNGAS and eBudget System and have rolled-out to their operating units across the Philippines.

Around 35 other government agencies received other awards during the event such as the "Pioneer Award" for agencies that launched the eNGAS and eBudget since its pilot implementation, the "Outstanding Contributor Award", which recognizes invaluable dedication to collaborate with the Commission on Audit (COA) for continuous development of the systems, and the "Grass Root Implementer Award", which recognizes cities and municipalities that implemented the systems down

to the barangay level.

The eNGAS and eBudget are both accounting software developed by COA in 2001 with the objective of standardizing government financial transactions and reporting.

The GFMIC, currently headed by its president, COA assistant commissioner Carmela S. Perez, is an association registered with the Securities and Exchange Commission and aims to promote and maintain high standards relating to public financial management.

The association is composed of users and enthusiasts of the eNGAS and eBudget systems, including other financial management information systems.



National Impact Zone coordinator Wilma Del Rosario (in the middle) receives plaque of recognition, medal, and cash award from President Rodrigo Roa Duterte as one of the Civil Service Commission's (CSC) Pagasa Awardees for 2019. The awarding ceremonies were held at Malacañang Palace last September 10. *Photo Source: Civil Service Commission*

PCC NIZ coordinator is recipient of '2019 CSC Pagasa Award'

By Charlene Joanino

Wilma Del Rosario, Philippine Carabao Center (PCC) National Impact Zone (NIZ) coordinator and senior science research specialist, was hailed by the Civil Service Commission (CSC) as one of this year's Pagasa Awardees.

This is in recognition of her commitment and passion in promoting the economic viability of buffalo-based dairy enterprises in the country.

In a span of 22 years, Del Rosario

closely worked with farmers in the NIZ to help them pursue opportunities in sustainable carabao-based enterprises.

"Pagasa award is the fruition of my hard work to wholeheartedly help others. I believe that when you sincerely do good, God will bless you. Having my efforts recognized by no less than the President of the Philippines is a lifetime achievement," Del Rosario said.

President Rodrigo Roa Duterte led the awarding rites at the Malacañang Palace last September 10. Del Rosario received her award with her spouse Renato and Dr. Arnel Del Barrio, PCC executive director,

Pagasa award is "given to an individual or group of individuals for outstanding contributions that directly benefit more than one department of the government."

Igniting the passion of the youth to take the lead PCC holds 1st ever youth camp

By Chrissalyn Marcelo



With the main objective of supporting the youth and preparing them to become the next generation in carabao-based farming business, the PCC through its Planning and Information Management Division (PIMD) conducted its first-ever youth camp last August 24-26 at the PCC National Headquarters in Science City of Muñoz in Nueva Ecija.

The camp, titled “Youth Camp 2019 Ablaze: Igniting the Passion of the Youth to take The Lead,” was specifically aimed at: (1) offering a unique atmosphere in which the youth will appreciate their family dairy business; (2) building individual character, confidence, and leadership skills; and (3) inculcating with them the values and principles of the cooperative movement.

It was participated in by 49 youth members and 4 youth program managers from Licaong Dairy Producers Cooperative, Eastern Primary Multi-Purpose Cooperative, Simula ng Panibagong Bukas Multi-Purpose Cooperative and Catalanacan Multi-Purpose Cooperative in Nueva Ecija.

Five youth leaders from Lamac Cooperative Youth Planet (LCYP) were invited as co-facilitators or resource persons, which include Kevin Abella Paslon, Abner David Repollo, Erica Rose Tuquib, Hazel Salaritan and Marnel Leones. They were youth leaders who have been leading a strong force of some 13,179 active youth members in Cebu City.

Activities conducted were the following: (1) youth talk, (2) team-building activities, (3) entertainment night, (4) short courses on entrepreneurial activity and talent workshop; and (5) solidarity night.

A family bonding or “Fam Bond” and a culminating activity were also conducted during the third day of the camp. These activities gave the youth participants the opportunity to bond with their parents through games, show off their talents on stage, and share their experiences and learnings during the camp.

Jessa Evangelista, one of the participants, said in tears how the camp helped her: “I thank PCC for the opportunity given to me. I learned valuable lessons during the camp especially during the teambuilding activities wherein my teammates had to carry me to be able to pass through the spider web game. At first, we were hesitant if I could make it since I am heavy and big. But through that activity, we learned that we can conquer any obstacles or battles as long as we are helping each other and we are united in one spirit and objective.

Czarina Carla Pimentel, another participant, happily shared in an interview her comment about the camp: “It is a big privilege for me that I am one of the participants of the youth camp. I am blessed to have experienced all the activities in this event. The youth camp molded me not just to be a second liner but also to become a better version of myself. I hope that the PCC will continue reaching out to youth

members of other cooperatives and give them the opportunity to ignite their passion to serve in their respective communities. On behalf of my co-participants, I want to thank PCC and LCYP facilitators for all the learnings, pieces of advice, and happy memories.”

Facilitators of the activity were composed of PIMD chief Dr. Liza Battad, Alvin David, Jan Czarina Salas, Julie Marie Sebastian, Joshua Villanueva, Pauline Maramag, and NIZ Coordinator Wilma Del Rosario.

Some farmer-champions including Rudy Say Sr., Samuel Mercader, Ana Liza Salazar, and Allan Benitez also shared their experiences in carabao farming during the culminating activity. They thanked the PCC for letting their sons and daughters experienced attending in the camp and appreciate their carabao farming business endeavors.

Other activities such as series of lectures and trainings on leaderships and courses on carabao-based businesses are set to be conducted by the PCC-PIMD in the future to further hone the knowledge and skills of youth in leadership and carabao-based farming business.

The youth camp served as an introductory activity to establish the youth development program of PCC in its impact zone cooperatives. Its end goal is to help the impact zone cooperatives create their own youth laboratory cooperatives with continuing support from PCC until they reach self-sufficiency.

From page 1

DA chief shares with carapreneurs strategies to level up agri sector



Servant-leader “Manong Willie” as he prefers to be called, tackled in his speech national issues particularly on declining palay farm gate prices with emphasis on Republic Act (RA) 11203 or the “Rice Tariffication Law” that establishes the Rice Competitiveness Enhancement Program (RCEP).

He said that RA 11203 allocates Php10 billion per year for RCEP for the next six years. Of the Php10 billion, Php5 billion would be invested for farm mechanization, Php3 billion for the provision of high-yielding seeds, Php1 billion for credit support, and Php1 billion for training of rice farmers.

He also shared the department’s agenda for his first 100 days as agriculture chief such as the proper implementation of the Rice Trade Liberalization Law, skills enhancement of farmers and fisherfolk, meeting with top 30 governors of rice producing provinces and strengthening partnership with the private sector, among others.

In pursuit of inclusive growth and development, Manong Willie had recently put forward eight paradigms that make up the “new thinking” for Philippine agriculture to help realize the DA’s vision of a food-secure country with prosperous farmers and fisherfolk.

These are modernization of agriculture, industrialization of agriculture, promotion of exports, consolidation of small-and medium-sized farms, infrastructure development, higher budget and investments for agriculture, pro-poor legislative support, and road map development.

PCC Executive Director Dr. Arnel Del Barrio, on the other hand, shared PCC’s commitment to the new thinking for carabao value chain players.

He mentioned some of PCC’s program, projects, and activities that are aligned to the eight paradigms. (for further details see next page)

Meanwhile, Manong Willie commended PCC for strengthening its alignment with the new thinking for Philippine agriculture.

“PCC is one of the best performing agencies under the DA with support from the provincial government,” he said.

He also opened the avenue for local government unit of the SCM to encourage institutions of agriculture in the city to have a city-wide-agriculture extension system that will be part of the provincial agricultural extension system.

“Bring them together and I’m now

directing them to really sustain the image of SCM as a science city and be a model of using modern technology,” he averred.

Present during the program were Agriculture Spokesperson Noel Reyes, Regional Technical Director Crispulo G. Bautista Jr., Provincial Governor Aurelio Umali, San Jose Mayor Kokoy Salvador, SCM Mayor Nestor Alvarez, Senior Technical Adviser Dr. Santiago Obien, Central Luzon State University President (CLSU) Dr. Tereso Abella, Former CLSU President Dr. Fortunato Battad, City Veterinarian Dr. Jerry Rigos, Provincial Agriculturist Serafin Santos, Private Entrepreneur Danilo Fausto, PHILMech Executive Director Dr. Baldwin Jallorina, PhilRice Acting Executive Director Dr. Saillila Abdula, carapreneurs from Simula ng Panibagong Bukas Primary Multi-Purpose Cooperative, Eastern Primary Multi-Purpose Cooperative, Catalanacan Multi-Purpose Cooperative, Licaong Dairy Cooperative, Cabisuculan Dairy Cooperative, Pulong Buli Primary Multi-Purpose Cooperative, Lamac Multi-Purpose Cooperative, and PCC officials and staff.

Carabao-based Family Business Owner Leoncio Callo, Lamac MPC General Manager Ellen Limocon, and ACDI Multipurpose Cooperative were also invited to the program.

A FOOD-SECURE PHILIPPINES WITH PROSPEROUS FARMERS AND FISHERFOLK.

1



MODERNIZATION MUST CONTINUE

- Breed development and improvement
- Carabao Herd Improvement Program Services (CHIPS)
- Crop-livestock integration and diversification
- Mechanization of carabao value chain services

2



INDUSTRIALIZATION IS THE KEY

- Carabao value chain business hub development
- iREB Client Business Dashboard as guide for productivity and profitability
- Ancillary service-oriented business facilitation
- Access to credit and investment

3



PROMOTION OF EXPORT IS A NECESSITY

- Strengthen research and development for export-ready products



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RADIGMS LEVEL UP ICULTURE W WAYS OF THINKING'

Illustrations by Rowena Bumanlag,
Chrissalyn Marcelo and Jan Czarina Salas

4



CONSOLIDATION OF SMALL- AND MEDIUM-SIZE FARMS

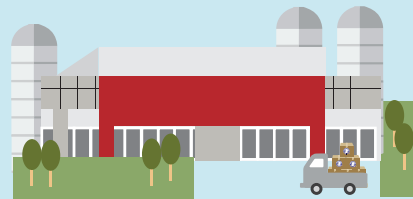
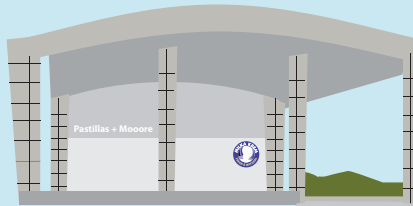
- Clustering of farms and development of production zones
- Coopreneur and corporate clusters buildup
- Development of province-wide agricultural extension systems
- R4D Refocus: Client-driven and solution-oriented researches on productivity and business models to engage stakeholders in technology development and utilization

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INFRASTRUCTURE DEVELOPMENT SHOULD ALSO BE CRITICAL

- FDA-accredited carapreneurs' processing plants across service impact areas
- Establishment of a carabao-based advocacy hub in Visayas and Mindanao
- Development of business portfolio and dairy marketing network

6



HIGHER BUDGET AND INVESTMENT FOR PHILIPPINE AGRICULTURE

- Investment for Carabao-based Business Improvement Network (CBIN) for province-wide Carabao Development Program (CDP)
- Encourage public-private collaboration for carabao-based enterprise development

7



LEGISLATIVE SUPPORT IS NEEDED

- Creation of National Livestock Genetics Board
- Credit access facilitation for milk supplementation
- Save Buffalo Genetics Fund

8



ROADMAP DEVELOPMENT IS PARAMOUNT

- iREB 2.0 Championing Carapreneurship: 2020-2025 Roadmap toward 'Client-Orientedness and Renewed Efforts on Value Creation for Improved Productivity and Profitability' (CORE-VIP)

PCC opts for more tender, lean carabaos' meat

By Charlene Joanino
Photos by Rowena Bumanlag
and Charlene Joanino



Meat is one of the marketable products that can be derived from carabaos. However, without good genes, the potential of carabaos for meat cannot be fully maximized.

“We want to develop a breed of carabaos for meat to produce higher meat quality,” this is what Dr. Kristine Joy Prades said when asked on what she and her co-researchers envision in the future.

Dr. Prades is Philippine Carabao Center’s (PCC) senior science research specialist and one of the researchers spearheading two PCC researches that are anchored towards the production of carabao’s meat.

The first research was entitled “Real-Time Ultrasonographic Evaluation

of Carcass Traits: A Potential Tool for Improving Meat Quality Traits in Buffaloes,” by Dr. Prades, Emmanuel Bacual, and Dr. Ester Flores.

Its primary objective is to “establish an accurate measurement method for identifying economically important buffalo meat traits and to establish ultrasound information to determine the value and merit of the carcass while the animal is still alive.”

The use of real time ultrasound scanning (RTUS) allows evaluation and identification of breeder animals with superior meat quality at a young age of 12 months. This allows progeny testing for carcass traits in a shorter period of time as compared to its previously slow and expensive process.

Since age is crucial in the tenderness

of meat, PCC’s use of RTUS in carabaos also avoids production of meat with poor quality that is sold for a low price.

“PCC ranks its bulls based on its breeding value on milk, those that fall behind are commonly intended for slaughter. We want to put them into better use and so we started our efforts in meat,” Dr. Prades said.

Dr. Prades noted that the parents’ genetics play a very significant role in the selection. Since carabaos carries 50/50 of the genes of their parents, having good genes meant that the potential of having quality meat is high.

While RTUS enables identification of carabaos that are ideal for meat, the coinciding research “Association of bovine genetic markers with



“PCC ranks its bulls based on its breeding value, those that fall behind are commonly intended for slaughter. We want to put them into better use and so we started our efforts in meat”.

-Dr. Kristine Joy Prades
Senior Science Research Specialist

marbling and tenderness in cattle and buffaloes” focuses on the improvement of meat through the establishment of genetic markers.

This is being conducted by Dr. Prades, Dr. Flores, Melinda Reyes, Niña Alyssa Barroga, and Paulene Pineda.

On good meat characteristics and consumer preference

“A carabao’s meat can be considered as good quality based on its back fat, the size of its loin eye, marbling, and nutritional value,” Dr. Prades said. Marbling refers to the white flecks of intramuscular fat in the meat.

According to her, compared to cattle meat (beef), carabao’s meat has less cholesterol, less calories, more



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CPG native carabao conservation: Current status and way forward

By Lilian Villamor
Photo by PCC-Cryobank Unit

Over the past nine years, local farmers together with the Local Government Unit (LGU) officials established a sanctuary of native carabaos in the municipality of President Carlos P. Garcia Island (CPG) in the province of Bohol.

The signing of a memorandum of agreement (MOA) with PCC at Ubay Stock Farm (USF), spearheaded by then Center Director Dr. Caro Salces, gave the implementation of the conservation program a go-ahead.

CPG Mayor Fernando Estavilla explicitly declared that the signed agreement with PCC covers conservation, improvement, and utilization of the native carabao as a source of genetics for natural and artificial reproduction.

Extension services to animals such as deworming, administration of

vitamins, and screening of blood samples for infectious disease complement the continuing technical support provided to the native carabao farmers in the island. The PCC@USF team headed by Pat Granada ensures that these services directly benefit farmers.

Researchers from the PCC national headquarters headed by Lilian Villamor together with Dr. Ester Flores, Therese Patricka Cailipan, Aivhie Jhoy Escuadro, and Alexander Paraguas benchmarked on establishing DNA profiles and body morphometrics from native carabaos in CPG in order to determine the current status of the population as pure native carabao breed.

Through molecular analysis, the DNA profiles of these animals revealed that native carabaos in CPG were kept as a pure-type swamp breed, with high bloodline or affinity

to the swamp buffalo ancestry. This simply reflects the commitment of the local farmers and support of LGUs to the conservation program which strictly prohibits the introduction of exotic buffalo breeds in the carabao sanctuary through a local ordinance.

Said activity was part of a three-year study on genetic diversity of the Philippine Carabao across the country with a financial grant from the Department of Agriculture Biotech Program with PCC as the implementing agency.

CPG was chosen as a carabao sanctuary in the Visayas for two reasons: to honor the late President Carlos P. Garcia and for its topographical location. CPG features a physical barrier that protects the conservation site from the entry of exotic breeds of buffaloes.





When CPG was chosen to be a carabao sanctuary in the Visayas, it was considered for two reasons: (1) in honor of late President Carlos P. Garcia and the topographical location; (2) presence of physical barrier making it ideal for protecting the conservation site in the island.

Previously, the island was hardly accessible because it can only be reached through a 15-minute boat ride from the port of Ubay, Bohol. But with the operation of the LGU-run ferry “LCT Isla de Pitogo”, the island is ready to take in more development interventions. From mainland Bohol, a regular ferry schedule is from 5:30 am to 8:00 pm daily.

In the advent of modernization in agriculture, native carabao conservation is facing both challenges and opportunities.

The high rate of animal extraction due to market demand poses a threat to the population of native carabaos.

“The pool of native carabao genes is in danger of extinction due to slaughtering. People no longer see the importance of carabao in

agriculture due to the advent of farm machinery and other modern farm implements,” Estavilla said.

While the ease of transportation to and fro CPG has opened opportunities for the island, it could also mean entry of other animals into the island which may imperil the ongoing conservation efforts.

Against this conflict, PCC@USF officer-in-charge Dr. Glenn Bajenting, sees an opportunity that PCC and the LGU might resolve to agree on to address this. He proposes the crafting of a policy that would strengthen the implementation of the conservation program in CPG such as making it into an “official” carabao sanctuary.

Meanwhile, efforts toward improving the native carabao sanctuary while extending assistance to local farmers will continue.

“PCC can continue to assist carabao farmers in partnership with other sectors through the collaborative technical and logistical support to facilitate the development of a comprehensive development plan and other related activities for the livestock industry,” Estavilla said.

Looking forward, Estavilla envisions a bright future for CPG island as an agri-tourism site in Bohol.

“Five years from now, the town will be a breeding area for native carabao, and our carabao farmers will be self-sufficient entrepreneurs for native carabao by-products such as milk and meat. By then, we will be the haven of a ‘dairy type’ improved breed of native carabao. It will be our contribution to the agri-tourism of Bohol,” he said.

In Zambales

Thru the eyes of love springs community development

A culture of love and cooperation has spread in the community as opportunities sprung for the townsfolk.

“Love and compassion not just for the animals but more for the people in our community—this is what makes up our humble yet meaningful farm venture,” Roger Mactal, farm owner, said.

This farm is a corporation owned by the Mactal family and is heavily dependent on the hardworking Aetas for their day-to-day operations. Mactal said these indigenous people’s lives have changed for the better since the introduction of dairy buffaloes. Previously, he said, the Aetas relied on corn and rice farming, which gave them seasonal income.

When the indigenous farmers began to raise carabaos, they realized that time, efforts, and resources could maximize their income potential by engaging in a sustainable enterprise. They began to earn income and meet their needs because they were able to secure a regular market for their milk produce.

Out of the 10 milking buffaloes, 55 liters of fresh milk (40 liters in the morning and 15 liters in the afternoon) are collected twice daily. While working to secure a permit for their processing facility, the farm is already supplying milk for pastillas making in Palauig.

Aside from milk production, farmers are also earning from silage making as feedstuff for the buffaloes and vermicomposting from buffalo manure.

The dairy buffaloes and the hardworking Aetas are considered farm assets in Sta. Catalina farm. Currently, it has 11 regular employees, one of which is an AI technician trained at PCC at Central Luzon State University.

From this pool of employees, four compose a “carabao group” whose major function is to tend to the wellbeing of the buffaloes.

“Whatever is allotted for the workers are surely for them. It has been a good practice that everyone here knows how to be a team player and practice the culture of unity,” Mactal said.

Beginnings

Considered as the only “carabao farm” in Zambales, the Sta. Catalina farm was started in 2016. In 2018, the Agricultural Training Institute (ATI) accredited the farm as a learning site for agriculture (LSA) for its adequate facility, various livestock animals, crops, and agricultural technologies.

For three consecutive years, it has been accepting on-the-job trainees from the Ramon Magsaysay Technological University (RMTU). Students are exposed to various farm practices to enhance their knowledge, skills, and attitude.

As an LSA, the Sta. Catalina farm provides various learning activities for visitors. It also offers immersion to guests that will give them firsthand experience on dairy buffalo management practices like bathing, feeding and actual milking. It has a camp site and a pavilion that serve as resting place after strenuous activities such as hiking in the famous Mt. Pinatubo. Soon, the farm will also feature a swimming pool atop the hill.

The Sta. Catalina farm is sprawling on a 32-hectare mountainous area in Zambales. This farm is into livestock production, which includes free-range poultry, piggery, goats and rabbits.

Additionally, the farm is particularly focused on buffalo production. Starting with just one bull named “Bruno” from PCC@CLSU, the herd has now grown to 22 purebred female dairy buffaloes, which they call “caraballa”, 13 calves and one female native carabao.

Future plans

Aligned with herd build-up as one objective of the Sta. Catalina farm, it is also aiming to produce 100 liters of milk from the dairy buffaloes. The farm is looking forward to develop various dairy products using this volume of raw milk to entice more tourists.

Mactal recognizes the importance of appreciating and trusting

his workers by giving them opportunities that will enhance their capabilities in farm operations.

Mactal is a business course graduate but he embraces his passion for agriculture, which gives him the drive to operate the farm and contribute to food security through integrated farming with livestock and crops as primary commodities.

“Our indigenous workers remain to be my motivation. I am delighted that I’m able to help them while they are also helping me pursue my passion in farming,” he said.

Mactal said he is planning to bring other animals into the farm but the buffalo will remain to be its focus now that they are planning to establish an organic farm adjacent to Sta. Catalina. He also emphasized that buffalo production and management is far convenient in many ways compared to the other farm animals.

“I’m glad that we developed a culture of teamwork and compassion in this farm because I myself was a product of kindness from a priest who raised me as his own and who was instrumental for meeting my wife. I always look at Sta. Catalina farm in the context of love,” Mactal said.



Researchers Dr. Kristine Prades and Pauline Pineda at the PCC’s Animal Genomics and Bioinformatics Section while pipetting samples.

From page 19

PCC opts for more tender, lean carabaos’ meat

protein, and more mineral.

Meanwhile, PCC researchers found that the Brazillian buffalo breed has a good potential for meat production because it has a big loin eye area.

Based on the predicted growth curve, the development of a carabao’s loin eye reaches a plateau at 27 months. Hence, before or until after two months upon reaching the said month, is a suitable time to do fattening. In this way, the raiser can avoid incurring more expenditures in rearing a carabao for slaughter.

During the PCC’s 26th Anniversary Farmer’s Field Day, meat products such as carabao’s beef or “carabeef”, tapa and sausage were showcased. The products were subjected to tasting to gauge its marketability in terms of the acceptance of the stakeholders involved in the said event.

Future efforts

As per PCC’s research efforts in meat, an average of 48% yield or 240 kg. of meat can be obtained from a carabao with a live weight of 500 kg. However, there is a tendency to get more than 51% when the animal was fattened.

To further PCC’s initiatives on meat production, Dr. Prades stated that there is a need to also develop a specific feeding protocol for carabaos. This is in consideration of good nutrition and health, which is vital in the successful rearing of carabaos.

According to her, a market study may be conducted to assess potential supply and demand of carabao’s meat. Furthermore, they plan to utilize native buffaloes, crossbreeds, and other breed of carabaos that may lead to the emergence of a distinct type of breed for meat production.



Department of Agriculture

PHILIPPINE CARABAO CENTER

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