Volume 21 | Issue No. 7 July 2020

BAR Chronicle
BUREAU OF AGRICULTURAL RESEARCH
www.bar.gov.ph /DABAROfficial ISSN 1655-3942

3R Program launched in 1st virtual research management meeting

In line with the Department of Agriculture's (DA) "Ahon Lahat, Pagkaing Sapat (ALPAS) Laban sa COVID-19 Program," the DA-Bureau of Agricultural Research (BAR) launched its own Resiliency Response Research for Development (3R) Program during the Third Quarter Research Management Meeting on 29-30 July 2020 via online conference.

The program was launched during the event as it was aimed at forging stronger collaboration and partnership towards a more effective implementation of research for development (R4D) initiatives in the new normal, and to ensure that R4D activities are harmonized.

PHOTO: CMABAO

Participants include regional technical directors for research and regulations, regional technical directors for operations, and research managers from the various research divisions of DA regional offices and DA-Bureau of Fisheries and Aquatic Resources (BFAR); officials and representatives from DA-Bureau of Plant Industry; DA-Bureau of Animal Industry; DA-Philippine Fiber Industry Development Authority; DA-Philippine Carabao Center; and DA-National Fisheries Research and Development Institute.

DA-BAR Director Nicomedes P. Eleazar, represented by DA-BAR Assistant Director Digna L. Sandoval, welcomed the participants and recognized everyone's efforts in managing the food system as losses are incurred in the market, supply chain, and trade due to the pandemic.

"It is during these trying times that we saw how you, as managers, have utilized your expertise, dynamism, and creativity in heeding the call of continually improving the delivery of our service in the R4D sector," said Sandoval.

The meeting served as the official launch of the DA-BAR 3R Program to regional partners and an avenue for the bureau to fully present and discuss the program, its subprograms, and strategies.

Participating DA and BFAR R4D agencies were also given opportunity to ask questions and seek clarifications, citing their agency-

turn to page 5

what's inside?

RiceBIS and its initiatives conducted across selected sites

With the goal of improving the level of competitiveness of farming communities into a more resilient and sustainable agro-enterprise, as well as to improve the conditions of life of farmers in various rural areas in the country, the Rice Business Innovations System (RiceBIS) project conducted clustering activities for the month of July 2020 across selected sites in the country.

Anchored on the program's eight-step clustering approach, the RiceBIS Community Program, through the Department of Agriculture-Philippine Rice Research Institute (DA-PhilRice) Central Experiment Station, introduced the value of farm clustering to potential community adopters in Mangatarem, Pangasinan on 29 July 2020.

As part of the needs assessment, and to determine current rice farming practices within the clusters, the project team conducted a briefing with site working groups, and a focus group discussion with the 20 farmers in attendance.

The cluster leaders from various barangays of Mangatarem, such as Maravilla, Malibong, and Bunagan, also participated in the discussions to make sure that the needs of their communities are raised and targeted.

Project partners from DA Ilocos region; Provincial Government of Pangasinan, through its Office of the Provincial Agriculture; Local Government Unit of Mangatarem, through its Municipal Agriculture Office; National Food Authority-Western Pangasinan; Bureau of Plant Industry-National Seed Quality Control Services; Landbank of the Philippines; National Irrigation Administration; and Seven Barangays Irrigators Association, Inc. also attended the said activity.

The agencies shared about their respective programs and services, and cited the significance of being part of an organized group in order to not only access these services more efficiently, but also to build up farmers' capacities.

The second phase of RiceBIS covers 15 municipalities in 12 major rice-producing provinces specifically: Pangasinan, Masbate, Ilocos Norte, North Cotabato, Quezon, Negros Oriental, Zambales, Ifugao, Quirino, Agusan del Norte, Tarlac, and Aklan.

Initiatives were taken up by DA-PhilRice, with Dr. Aurora Corales as the overall program leader, to help address the needs of local farmers especially in terms of production, processing, and marketing, to ensure

turn to page 8

The Philippine Rice Research Institute-Central Experiment Station conducts a focus group discussion and project briefing with various cluster leaders in Mangatarem, Pangasinan. **PHOTO COURTESY OF JAYCA SIDDAYAO/DA-PHILRICE**

BAR CHRONICLE highlights the bureau's activities as the country's national coordinating agency for agriculture and fishery R4D, and provides updates on NaRDSAF-member institutions.

For comments and suggestions, contact us through tel. nos.: (+632) 8461 2900 or (+632) 8461 2800 local nos. 1136, 2128, and 1138 or email us at kmr4d@bar.gov.ph. To subscribe, please send a formal request to our email.

Follow our social media accounts: /dabarofficial

EDITORIAL BOARD
Editor-in-Chief: Mara Shyn M. Valdeabella
Layout: Rena S. Hermoso
Writers: Clarisse Mae N. Abao, Ma. Eloisa H. Aquino, Chantale T. Francisco, Rena S. Hermoso, and Jireh Alodia R. Laxamana
Circulation: Lyn D. Pardilla
Consulting Editor: Julia A. Lapitan
Advisers: Dr. Nicomedes P. Eleazar, *CESO IV* and Digna L. Sandoval

DA-PCC launches B2B Paiwi System to aid livestock farmers amid health crisis

PHOTOS COURTESY OF DR. LERMA CAJUIGAN-OCAMPO/PCC

Does undergo ultrasonography to determine which among them are eliegible for mating.

The Department of Agriculture-Philippine Carabao Center (DA-PCC) led by its executive director, Dr. Arnel Del Barrio, launched the "Buck to Bucks" (B2B) Paiwi System on 9 July 2020 in San Jose, Nueva Ecija to help livestock farmers augment their income.

The B2B Paiwi System is one of the efforts of DA-PCC to complement the projects and activities under the agency's Creating Opportunities through Value Innovations and Development project in line with the Ahon Lahat, Pagkaing Sapat (ALPAS) Kontra COVID-19 program of DA.

In partnership with the city government of San Jose, the project will benefit farmer-members of the Tayabo Agro-Entrepreneur Natures Innovators Movement and the Pantawid Pamilyang Pilipino Program beneficiaries in Barangay Tayabo, San Jose, Nueva Ecija.

Lolito Deloberjes, Jr., a progressive farmer, was chosen to initially model the B2B Paiwi System. He was entrusted with one male goat (buck) that will be used for breeding for meat production. Hence, earning bucks in the long run.

Under the said system, does from the herd of the partner-farmer underwent ultrasonography to determine which were eligible for mating. Qualified does were injected with hormone to induce estrous. After three to five days, the does are expected to manifest overt signs of estrus or 'in heat' and they will be bred naturally by the buck. Pregnancy diagnosis will be done after 30 days by ultrasonographic examination of the does. Once they are declared pregnant, the buck will be transferred to another adopted goat herd community identified by Edgardo Villamante, focal person of San Jose city government.

The said buck is one of the kids born out of another DA-PCC project, "Utilization of Epididymal Sperm of Slaughtered Livestock for Basic Research Using Assisted Reproductive Techniques (ARTs)," led by Dr. Lerma Cajuigan-Ocampo of DA-PCC and funded by the DA-Bureau of Agricultural Research (BAR).

The BAR-funded project found that postmortem epididymal sperm (ES) remain physiologically functional as demonstrated by their ability to fertilize matured oocytes through in vitro fertilization technique (IVF). ES was preserved on -196 degrees Celsius for future utilization. Dr. Ocampo emphasized the importance of preserving animal genetic resources in the country for sustainable livestock production.

Following its success, another BAR-funded project was conducted to determine if the frozen ES could still fertilize matured oocytes through *in vivo* fertilization; simply put, its ability to impregnate a doe.

The follow-up project proved that utilization of the frozen ES by Fixed Time Artificial Insemination technology in Boer goats at DA-PCC genepool produced kids on the ground called "*epid*" bucks. These bucks were lent to the livestock farmers under the B2B Paiwi System.

Although nondescript goats may be smaller than their imported/foreign breed counterpart, village farmers still keep a handful in their locality due to their innate capability to graze with locally available fodder/grasses and their ability to multiply faster.

The B2B Paiwi System is seen to help farmers produce more goats that are better versions of their female parent, thus augmenting income faster. ### ***(Rena S. Hermoso)***

Financial Viability Books now up for viewing

Technology and Investment Profile of Cashew Products

Librada L. Fuertes, Corazon T. Aragon, Bates M. Bathan, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Technology and Investment Profile of Soybean Roast Products

Leonilo S. Dela Cruz, Corazon T. Aragon, Cesar B. Quicoy, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Technology and Investment Profile of Malunggay Products

Dorris N. Gatus, Veronica Aurea A. Rufo, Nemia C. Pelayo, Corazon T. Aragon, Bates M. Bathan, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

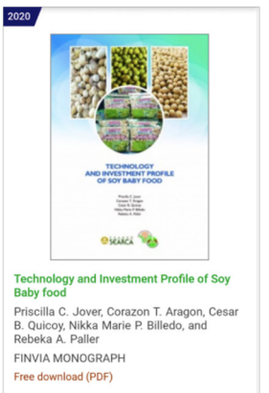
Free download (PDF)

Technology and Investment Profile of Soya Chips

Marilou Lagdameo, Corazon T. Aragon, Antonio Jesus A. Quilloy, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)



Technology and Investment Profile of Soy Baby food

Priscilla C. Jover, Corazon T. Aragon, Cesar B. Quicoy, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Technology and Investment Profile of Batuan Products

Peter S. Sobrevega, Corazon A. Arroyo, Elizabeth F. Amit, Nora T. Garpa, Corazon T. Aragon, Antonio Jesus A. Quilloy, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Technology and Investment Profile of Pinoy GOURmix

Rose Mary G. Aquino, Vanessa Joy F. Calderon, Corazon T. Aragon, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Technology and Investment Profile of Cacao Wine

Dennis L. Bihis, Flore May F. Calanasan, Emilio M. Mejia, Jr., Corazon T. Aragon, Cesar B. Quicoy, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

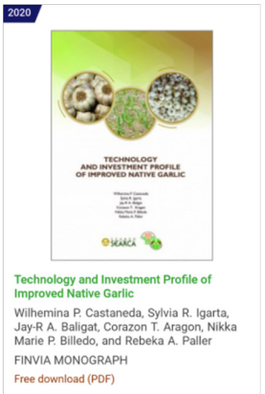
Free download (PDF)

Technology and Investment Profile of Seaweed Products

Aida S. Andayog, Corazon T. Aragon, Bates M. Bathan, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)



Technology and Investment Profile of Improved Native Garlic

Wilhemina P. Castaneda, Sylvia R. Igarta, Jay-R A. Baligat, Corazon T. Aragon, Nikka Marie P. Billedo, and Rebeka A. Paller

FINVIA MONOGRAPH

Free download (PDF)

Ten technologies and enterprises funded by the Department of Agriculture-Bureau of Agricultural Research (DA-BAR) under its National Technology Commercialization Program (NTCP) now have their investment profiles and financial viability details published and uploaded as monographs in the Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) website.

Selected based on investors' interest from the pool of completed and ongoing NTCP projects, the products analyzed for financial viability and profitability include Gourmix, Soy Baby Food, *Batuan* Products, Soya Chips, *Malunggay* Products, Soybean Roast Products, Cashew Products, Cacao Wine, Seaweed Products, and Improved Native Garlic.

With its purpose to serve as an investment guide and additional resources for agripreneurs and potential investors who would like to venture on agricultural products, the publication also aims to encourage farmers, fishers, and the youth to engage in agripreneurship by laying out the research for development (R4D) innovations that contributed to the financial viability of the said commodities. In this way, they can also develop good marketing strategies and build engagements in the local and global markets.

The books are products of DA-BAR's partnership with SEARCA through the project, "Financial Viability and Profitability Analysis of Agricultural Technologies and Enterprises." The project conducted a preliminary workshop, participated in by partner agencies and select DA-BAR staff, that aimed to emphasize the importance of financial viability and profitability analysis in the process of product development.

According to DA-BAR Director Nicomedes P. Eleazar, this analysis is crucial in evaluating technologies and enterprises that have market-potential and profitability in the long run.

The release of these monographs comes in a very opportune time as the bureau gears towards adopting and implementing the Inclusive market-oriented development (IMOD) strategy in R4D.

By harnessing markets and connecting them to small-scale farmers and fishers through demand-driven R4D innovations, IMOD strategy could stimulate small-scale enterprises that could increase productivity and profitability.

These books can be accessed and downloaded for free in the SEARCA website. To read and know more about its content, visit www.searca.org/pubs/monographs. ### ***(Chantale T. Francisco)***

DA-BAR holds progress review of on-going ACEF R&D projects

To keep track of the progress, and further polish the details and future action plans of projects supported under the Research for Development (R4D) Grant component of the Agriculture Competitive Enhancement Fund (ACEF) for state universities and colleges (SUCs), the Department of Agriculture-Bureau of Agricultural Research (DA-BAR) conducted a progress review of projects on 22-23 July 2020 through video conferencing.

With eight projects lined up, the two-day review was attended by key evaluators and select DA-BAR staff, who shared their insights and suggestions to address technical and administrative concerns of project implementers.

Graced by DA-Undersecretary for High-Value Crops Development Program and Rural Credit and ACEF Program Management Committee (PMC) Chairperson Evelyn Laviña, the activity served as an avenue for the implementers to present the accomplishments of and plans for their respective projects.

Of the projects reviewed, two projects titled, "Milkfish Processing Technology Refinement towards Upscaling and Commercialization" of the Bataan Peninsula State University (BPSU) and "Towards Commercialization of Healthy Convenient and Naturally-Fortified Brown and Aromatic Rice-Based Products" of the Central Luzon State University (CLSU) showed significant progress based on their presented data.

BPSU has already undergone product refinement and has received positive feedback from its respondents through a sensory evaluation test. Three training sessions were also conducted for the technology adopters, Kalipunan ng Liping Pilipina ng Bataan Inc., Samahan ng may Iba't-Ibang Kapansanan-Orani Inc., and Solo Parents Organization. Moreover, the project implementers have been able to kick off their marketing strategies by joining the Art of SUCcess: 2020 State Universities and Colleges Expo at Quezon City in March 2020.

Meanwhile, CLSU have started upscaling the production of their rice-based products, namely: Chip O'Ryz (oatmeal-raisin organic rice cookies), Aroz Kaldo (instant organic rice porridge), and RyzKrim (non-dairy rice ice cream). They have also conducted a production training in partnership with their beneficiary, Catalanacan Multi-Purpose Cooperative (CaMPC), and have introduced the products to the test market through a soft launching at the Dairy Box – owned and managed by CaMPC – located at the Philippine Carabao Center in the Science City of Muñoz, Nueva Ecija.

Sample products for upscaling by CLSU
PHOTOS COURTESY OF CLSU

As a member of the ACEF-PMC, DA-BAR is tasked to monitor and evaluate ongoing R4D projects after they are approved for implementation by the ACEF Executive Committee chaired by Agriculture Secretary William Dar.

With its R4D component focused on improving research facilities and boosting technology commercialization, ACEF is a funding program aimed to increase productivity and competitiveness of farmers and fishers through services and technologies derived from funded agri-fishery R4D activities of partner SUCs. ***### (Chantale T. Francisco)***

3R Program launched...from page 1

level situations, as regards to the plans and targets of the 3R program.

"As leaders in the implementation of R4D projects and activities in your regions, your appreciation and support to the 3R program will play a pivotal role in accelerating the implementation of our refocused PAPs. It is with this that the major highlight of this two-day meeting is the presentation of 3R program and its subprograms which encapsulates how R4D is working in support to the goal of attaining a food-secure and resilient agriculture and fishery sector despite the shift to the new normal, and any potential challenges ahead," Sandoval added.

Other topics discussed in the two-day meeting were: 1) implementation and coordination of national and regional R4D program and projects for the New Normal, 2) regional strategies for R4D and extension under the New Normal for Luzon, Visayas, and Mindanao, 3) National Technology Forum, 4) National Research Symposium, 5) Scientific Career System, and 6) financial matters.

Spearheaded by the DA-BAR Program Monitoring and Evaluation Division, the Quarterly Research Management Meeting was institutionalized in 2014 to ensure the complementation, harmonization, and strengthening of partnerships among regions in the sector of agriculture and fishery R4D. The said meeting was the first to be held virtually, in view of the bureau's adjusted operations towards the New Normal. ***### (Clarisse Mae N. Abao)***

DA-SCEC facilitates evaluation of Career Scientists' Applicants

The Department of Agriculture-Scientific Career Evaluation Committee (DA-SCEC) called a virtual meeting to facilitate the desk evaluation process of the nine scientific personnel who are applicants for career scientists on 23 July 2020 via Zoom.

The Bureau of Agricultural Research (BAR), with its director, Dr. Nicomedes P. Eleazar, serving as the committee chair, through Digna L. Sandoval, DA-SCEC co-chair and DA-BAR assistant director, presided the meeting and was joined in by members of the evaluation committee and secretariat.

This year's applicants are from the Bureau of Fisheries and Aquatic Resources Cagayan Valley, Philippine Carabao Center, Philippine Center for Postharvest Development and Mechanization, Philippine Fiber Industry Development Authority, and Philippine Rice Research Institute (PhilRice). Qualified candidates will be endorsed by Agriculture Secretary William D. Dar to the Science and Technology Secretary Fortunato dela Peña.

Participating in the meeting were the DA-SCEC committee members composed of Dr. Jonar I. Yago of Nueva Vizcaya State University; Dr. Mudjekeewis D. Santos of National Fisheries Research and Development Institute; Dr. Pompe C. Sta. Cruz of University of the Philippines Los Baños (UPLB); and Dr. Roel R. Suralta, representing Dr. John. C. de Leon, of PhilRice; and BAR Secretariat. Also members of the committee were Dr. Fe L. Porciuncula of Central Luzon State University and Dr. Rex B. Demafelis of UPLB.

Agriculture Secretary William D. Dar's instruction to strengthen the scientific career system and encourage more scientific personnel from the DA family to be conferred as Career Scientists was also highlighted in the meeting.

In order to systematize the review process toward a more efficient and faster evaluation and processing of applicants, the committee proposed that heads of DA staff bureaus, attached agencies, and regional offices be enjoined to create an SCEC in their respective agencies.

Composed of not more than five senior R&D staff, each agency SCEC shall ensure a pool of highly qualified and productive scientific personnel within their agency and conduct initial screening of applicants prior to endorsement to DA-SCEC. Along with this, each agency can establish guidelines to cover monitoring activities.

The DA-SCEC Committee is also committed to schedule orientation activities on Scientific Career System.

The Scientific Career System is a system of recruitment, career progression, recognition, and reward of scientists in public service. Conferred scientists shall enjoy the following incentives and benefits: career advancement; financial remuneration to include Magna Carta Benefits (RA 8439), Representation and Travel Allowance (RATA), highest basic salary upon retirement; distinction which include medal and to be featured in publications; annual membership payment in one international scientific organization; travel assistance for oral paper presentation in an international prestigious conference; among others. DA has a total of 19 active Conferred Career Scientists as of 2019. ###

(Ma. Eloisa H. Aquino)

The Scientific Career System

BAR Assistant Director Digna L. Sandoval (last row, right), DA-SCEC co-chair, presides the meeting. She is joined by the evaluation committee and secretariat.

UPLB to launch book on climate change adaptation stories

To share valuable local and indigenous knowledge on climate change adaption (CCA) of farmers, fishers, and indigenous people (IP) across the country, the University of the Philippines Los Baños (UPLB) is set to launch a book titled, "Stories of Adaptation to Climate Change," by third quarter of 2020.

The book documents the results of the project, "Documentation and Assessment of Local/Indigenous Knowledge (LInK) for Climate Change Adaptation of Agrifisheries Communities." It highlights the experiences and strategies of partner local/IP communities in adapting to the hazardous effects of climate change to their agriculture and fishery livelihoods.

"The IPs are upland dwellers who had experienced the brunt of climate change and have accumulated a vast pool of experiences and indigenous knowledge in coping with climate abnormalities," according to the project report. Thus, recognizing the potentials and value of local and indigenous knowledge is the heart of the book.

According to the World Risk Index 2019, the Philippines is the world's ninth most disaster-prone country. As such, efforts have to be made in order to adapt and mitigate its impact to the agriculture and fishery sector, one of the country's marginalized and most vulnerable groups. Hence, the importance of identifying effective CCA to improve the climate change-resiliency of agri-fishery communities.

Funded by the Department of Agriculture-Bureau of Agricultural Research, the project documented, analyzed, and validated the indigenous knowledge and CCA strategies in seven provinces, namely: Batanes, Camarines Sur, Palawan, Northern Samar, Antique, Davao Occidental, and Tawi-Tawi.

"With the farmers, fishers, and agri-fishers as storytellers, climate change adaptation becomes a narrative from their own perspective; thus, amplifying their voices in the climate change discourse," said the late Dr. Oscar B. Zamora, editor, project leader, and UPLB professor emeritus.

The project team hopes that with this book, representatives from IPs and local agri-fishery communities could engage in the planning and advisory councils on climate change mitigation and adaptation, and disaster risk reduction.

"It is hoped that more stories be told and more voices be heard so that there could be more solutions to the current problems that are increasing in complexity and magnitude," ended the late Dr. Zamora. ***### (Rena S. Hermoso)***

DA-BAR conducts Appreciation Course on ISO 9001:2015 for 2nd year

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR) conducted an Appreciation Course on ISO 9001:2015 Standard on 16 July 2020 via Zoom. The Synergized Macro Solutions, Inc., serving as the bureau's consultant, spearheaded the one-day activity. Done in preparation to the scheduled renewal of the bureau's ISO certification, the activity aimed to provide DA-BAR staff, especially those who are newly hired, a better understanding of the implementation and auditing requirements of the ISO 9001:2015 standard.

DA-BAR was awarded with ISO 9001:2015 certification on August 2019 after the establishment and application of quality management system for coordination and provision of grants to agri-fishery researches.

Agriculture Secretary William D. Dar, during the DA Management Committee Meeting held on 19 June 2020, instructed that DA and all its agencies and units, must be ISO 9001:2015 certified. ### ***(Ma. Eloisa H. Aquino)***

Susan Soliven, Synergized Macro Solutions, Inc. president and lead consultant (top row, 2nd from left) serves as the resource speaker during the Appreciation Course on ISO 9001:2015 standard. **PHOTOS: JALAXAMANA**

RiceBIS and its...from page 2

food security and rice self-sufficiency amid the threats of the current COVID-19 pandemic crisis.

This was done through the promotion of livelihood programs and climate-smart farm technologies to the communities, which were mostly the target beneficiaries of the RiceBIS project.

Funded by the DA-Bureau of Agricultural Research during the first quarter of 2020, RiceBIS aims to improve and transform farming communities using participatory, inclusive, and market-driven approaches and strategies.

Aligned to the Agriculture Department's twin objectives "Masaganang Ani at Mataas na Kita," the project's goals are continually delivered to farmers using a modern approach despite the transition to the "new normal."

DA-PhilRice now zeroes in on promoting modernization in rice farming through the distribution of matured technologies and improvement of rice and rice-based enterprises. ### ***(Jireh Alodia R. Laxamana)***

BAR Chronicle
RDMIC Bldg., Elliptical Road corner Visayas Avenue
Diliman, Quezon City, Philippines 1104

Entered as second class mail at the Quezon City Central Post Office under permit no. 2C-14-01-148 NCR