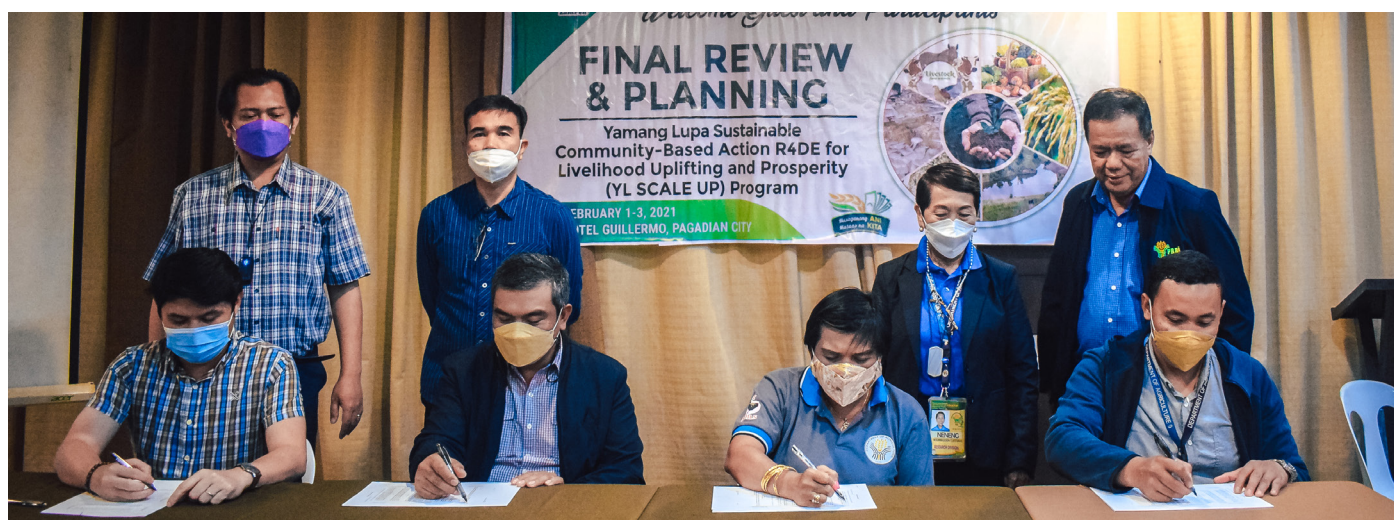


BARChronicle

The official newsletter of the Department of Agriculture-Bureau of Agricultural Research

DA-BAR, R4D institutions launch projects; seal partnership agreements



DA-Bureau of Agricultural Research and DA-Zamboanga Peninsula officials sign a memorandum of agreement to strengthen partnership in the implementation of the Yamang Lupa: Sustainable Community-Based Research for Development and Extension Livelihood Enhancement, Upliftment, and Prosperity Program in Zamboanga del Sur. //DVELASQUEZ

Anchored on the bureau's formulated strategies and programs, the DA-Bureau of Agricultural Research (BAR), together with partner research for development (R4D) institutions, launched R4D projects and sealed partnership agreements in February 2022 in Zamboanga del Sur and Cagayan Valley.

DA-BAR continues to collaborate with partner institutions, state universities and colleges, and organizations to initiate R4D projects and activities that will help farmers and fisherfolk in adapting to generated technologies and integrating community livelihood.

"We are here to continuously provide support, technical assistance vis-à-vis guidance on how we can improve R&D in general and for us to develop more technologies for our farmers and fisher, not just to develop but hoping that they are using these available technologies," said DA-

BAR director Junel B. Soriano during the MOA signing at Cagayan State University (CSU).

The bureau also signed a memorandum of agreement with selected key officials of DA-Zamboanga Peninsula to officially start the Yamang Lupa: Sustainable Community-Based Research for Development and Extension Livelihood Enhancement, Upliftment, and Prosperity (YL: SCALE UP) Program in Zamboanga del Sur. The event took place on 2 February 2022 at Guillermo Hotel, Pagadian City.

The YL: SCALE UP Program is expected to cover a million hectares of rainfed areas in the country. Its goal is to establish innovative and sustainable agriculture through enhanced YL Program approaches and strategies resulting in an increase in yield and income of farmers by at least 15 percent by 2025.

Furthermore, DA-BAR team launched an R4D project that will develop web-based applications to modernize crop production practices for SMART crop production and marketing in Zamboanga del Sur that will improve the quality of life of those in the agricultural sector on 3 February 2022 at the ACC Convention Hall in Pagadian City. ▶ 3

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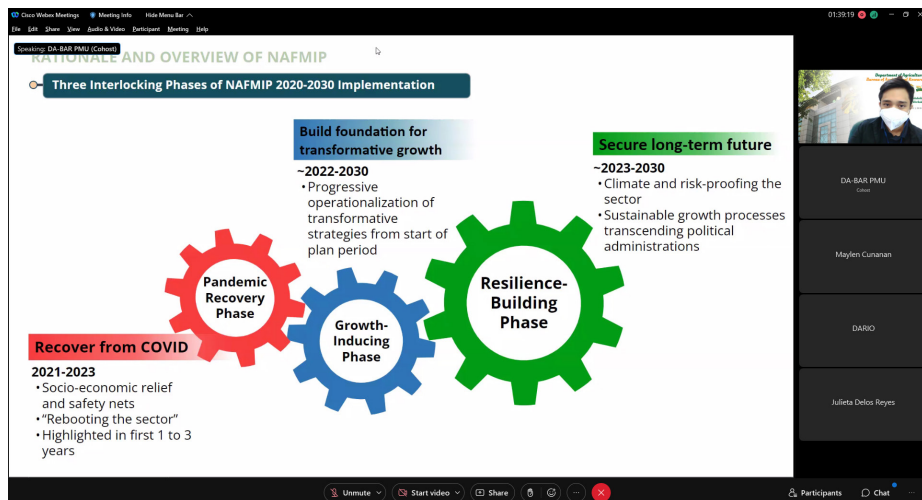
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DA-BAR convenes stakeholders; prepares NAFMIP formulation for R4D



Matthew Janssen Ty, BAR NAFMIP focal, presents the NAFMIP in relation to other Agriculture and Fisheries Plans, Guiding Concepts for the NAFMIP Updating, and the NAFMIP Rapid Assessment of the agriculture and fisheries R4D. //TEXT: MEAQUINO

In line with the ongoing efforts of the DA to formulate the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP), the DA-BAR conducted the Stakeholders Consultation Workshop for NAFMIP Research for Development (R4D) Sector on 24 February 2022 via Cisco Webex.

NAFMIP will serve as the sectoral guide for other agriculture and fisheries development plans, sector-wide goals, outcomes, and outputs.

“The preparation for this will be guided by the Transformative Planning Frameworks and Strategies, particularly the OneDA Reform Agenda which is the

holistic approach to agriculture and fisheries, as well as the DA New Thinking/Food Security Framework,” DA-BAR assistant director Joell H. Lales said in his opening message representing DA-BAR director Dr. Junel B. Soriano.

To ensure participation of relevant stakeholders, key officials and representatives from the government, academe, private sector, and non-government organizations were invited to participate.

With 179 participants, the activity consolidated the identified R4D interventions that would address various sectoral constraints as well as capitalize on existing sectoral opportunities for the concerned commodity groups (Crops, Livestock and Poultry, Aquaculture and Capture Fisheries).

The output of the stakeholder activity will serve as input in drafting the sector plan’s logical framework for the DA-led National Planning Workshop. Further, DA-BAR commits to harmonize the NAFMIP outputs with other plans, agenda programs, and roadmaps of the department. //MA. ELOISA H. AQUINO

R4D institutions in Central Luzon on battling animal viral diseases



PSAU and DA-Central Luzon key officials discuss status updates on the ongoing project on animal diagnostics. //TEXT: MEAQUINO

In line with the efforts to manage and further combat and eradicate the animal viral diseases in Central Luzon, the Pampanga State Agricultural University (PSAU) convened a meeting with various research for development (R4D) institutions in Central Luzon to

synchronize research efforts on 4 February 2022 via Zoom.

PSAU is currently undergoing a study aimed to diagnose, using molecular techniques, African Swine Fever Virus in swine, New Castle Disease and Avian Influenza viruses in poultry,

Tilapia Lake Virus in tilapia, and White Spot Syndrome virus in shrimps.

Funded by DA-BAR, the implementation of the project is in collaboration with DA-Central Luzon, Regional Animal Disease Diagnostic Laboratory (RADDL), Bureau of

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. 3121, 2143, and 2105 or email us at kmisd@bar.gov.ph. To subscribe, please send a formal request to our email.

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◀1...Launching of R4D projects

DA-BAR team and DA-Cagayan Valley select key officials also attended the launching of the DA-High Value Crops Development Program funded project aimed to develop a Zero Energy Cooling Chamber (ZECC). The technology will help farmers reduce the ambient temperature and maintain high relative humidity appropriate for on-farm storage of fruits and vegetables with zero electrical energy cost. The event was held on 22 February 2022 at Cagayan Valley Research Center (CVRC), Ilagan, Isabela.

Aimed to develop improved varieties of traditional white corn, and to determine the effectiveness of alternative plant protein source for feed formulation in swine and chicken, the bureau and DA-CVRC's partnership in two R4D projects was sealed through a MOA signing on 22 February 2022. Further, the bureau inked an agreement with the CSU for their project, that aims to assess the target market and preferred blend of *Caoffee* (cacao and coffee) product, on 23 February 2022. //

ANGELO N. PADURA AND DIWA J. VELASQUEZ

Central Luzon work on diseases

Animal Industry, and Bureau of Fisheries and Aquatic Resources regional offices.

During the said meeting, Jacob Anderson C. Sanchez, PSAU project leader, provided project updates and explained the detailed methodologies used in the experiment. DNA sequence results collected from samples in Pampanga, Bulacan, Nueva Ecija and Tarlac were also discussed.

Dr. Milagros R. Mananggit, chief of the RADDL-Integrated Laboratories Division, committed to continuously provide specimen from RADDL-Central Luzon that can be used for the research project.

In order to harmonize such efforts, a Memorandum of Agreement was signed between PSAU and DA-Central Luzon including other key offices on 3

Garlic experts recommend varieties based on multi-location adaptability trials

To expand the garlic production area and increase yield, experts from Mariano Marcos State University (MMSU), DA-Ilocos Region, and DA-Bureau Plant Industry (BPI)-National Crop Research Development and Production Support Center recommended registered varieties and cultivars based on multi-location adaptability trials.

In 2017, DA-BAR tapped garlic experts and initiated the said research in Ilocos Region, Cagayan Valley, Central Luzon, Bicol, Western Visayas, and Cordillera Administrative Region.

The project team analyzed the biophysical and climatic characterizations of potential garlic growing areas, as well as pest and disease incidences. Trials were laid out following the Randomized Complete Block Design with three replications. The plot size was 2 x 5 meters with a planting distance of 20 x 20 cm. The improved package of technology for garlic by MMSU was followed for cultural management.

Various activities to encourage the farmers, especially those in areas where garlic is not commonly planted, to venture into garlic production were done.

MMSU reported that Cagayan Valley and CAR are potential areas for expansion where Ilocos Pink, Ilocos White, Mexican, Miracle, and Tan Bolters are suitable varieties. While the produce from the provinces of Benguet, Isabela, and Nueva Vizcaya was recommended for black garlic processing.

September 2021. One provision in the agreement is that DNA/RNA specimens, including positive samples in RADDL will be sent to PSAU for subsequent laboratory tests and DNA sequencing.

Thus, RADDL performs its mandate by providing laboratory and diagnostic services while PSAU complements the RADDL through

DA-Ilocos Region identified the top two performing varieties Miracle as ideal for Ilocos Norte, Ilocos Pink for Ilocos Sur, and one cultivar Batanes White for Pangasinan. Thirteen municipalities showed potential as expansion sites. Eight municipalities expanded their area adopting the technologies farmed by 19 farmers and planting adoptable varieties in 9,723 sqm.

DA-BPI Los Baños found that Ilocos White, Batanes White, and Mexican were suitable in Tarlac, Duran Albay, San Carlos City Negros Occidental, and Miag-ao Iloilo.

The project team also recommended the following measures to encourage and institutionalize garlic production in these areas: conduct capacity-building activities, operationalize garlic laboratory for virus indexing, identify molecular characteristics of garlic, and standardize procedure on garlic seed production and certification.

They also advised strengthening partnerships among DA, state universities and colleges, and local government units on pest identification and management, implementing farm consolidation clustering of garlic farmers for expansion sites, and providing market support.

Consolidated recommendations of the project were submitted to the bureau in February 2022, while the terminal review was conducted in December 2021. //

RENA S. HERMOSO

research services.

The said study is being conducted in the established Animal Disease Diagnostic Research Facility funded by DA-BAR to help in providing fast and accurate diagnosis of pathogenic viral diseases of swine, poultry, and fisheries in the region. //

MA. ELOISA H. AQUINO

Shiitake production on woods highlights in-house webinar

Shiitake production on woods highlighted the DA-BAR in-house webinar on 22 February 2022. Dr. Maribel S. Bacena of Nueva Vizcaya State University served as the resource person.

Dr. Bacena said that the shiitake production has a 265.24% return on investment with eight months to recover based on their 2018 BAR-funded research project. The method of production was ideal for upland communities with temperature ranging from 17 to 27°C and water temperature of around 7°C.

Alder tree, an introduced species in the country, was the ideal wood media to be used. She stressed that although cutting down trees is prohibited under law, there are certain species like the Alder tree that do not require Cutting Tree Permit from the Department of Environment and Natural Resources.

To start the production, wood branches were gathered and cut at uniform length, ideally 1.2 meter for easier handling. Holes were drilled on the wood with a 30 centimeter distance, 1 cm width, and 2.5 cm depth. At least 1 gram of spawn will be inoculated per hole, then cover with candle or foam.



Planted wood branches were piled to help mycelia grow. Proper distance should be observed for good ventilation and maintenance. The wood branches should be turned upside down every two to four months to even out the moisture content.

After approximately eight months, the wood branches should be soaked in water for 48 hours and then incubated to stimulate growth. The branches would then be piled in a place where the mushrooms have the space to grow without external disturbance.

Pinheads would pop out from the bark; hence, Dr. Bacena stressed the importance of its proper management. Once the mushrooms were fully grown, it should be harvested using clean materials and delivered to the market within 13 hours. Wood branches should be given at least one month to rest before soaking it again for another round of production.

Dr. Bacena emphasized the importance of maintaining a clean environment for the production of shiitake production to prevent contamination. //RENA S. HERMOSO



EL GARDENS INAUGURATED. DA-BAR director Dr. Junel B. Soriano (center) together with (L-R) Batasan Hills barangay captain John M. Abad, Edible Landscaping (EL) Team head and project leader Dr. Fernando C. Sanchez, Quezon City Food Security Task Force co-chairperson Emmanuel Hugh F. Velasco, and STAR- Homeowners Association president Marjorie S. Yee during the ribbon-cutting ceremony and inauguration of the 15 Residential EL Gardens on 18 February 2022 at Batasan Hills, Quezon City. Through the DA-BAR funded project, EL gardens will be established among households in urban communities. It aims to build and strengthen capacities of residents in the urban communities towards food self-sufficiency. //APADURA