

# BARChronicle

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

## DOST, DA join forces for the 1<sup>st</sup> Technology Transfer Forum

The Department of Agriculture-Bureau of Agricultural Research (DA-BAR), together with the Department of Science and Technology-Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), co-hosted the 1<sup>st</sup> DOST-DA Technology Transfer Forum via Cisco Webex and Facebook livestream on 30 September 2021.

Serving as a platform for technology developers and potential investors to engage in knowledge exchange about science and technology and research for development-supported breakthroughs of DOST and DA, the forum covered eight farm machineries and 11 food-related technologies.

With the goal of making the country an innovation achiever, DOST secretary Dr. Fortunato Dela Peña highlighted that “if you want to help the country, make a mark in the global innovation landscape. Choose a Filipino invention and invest on our local technologies. These are extraordinary times and we must take extraordinary actions

to collaborate, to help out, and to rebuild our economy [and] our science and technology creations.”

Examples of farm machineries to possibly invest on include multi-purpose seeder, rice transplanter attachment, local riding-type rice transplanter, rice combine harvester, rice harvester attachment, adlay milling machine, greenhouse solar dryer for food grade cassava, and compact corn mill.

Food-related technologies, on the other hand, include chevon valley canned products, chevon products in retort pouch, goat products, tilapia ice cream, gracilaria seaweed products, products from cacao wastes by-products, vacuum-fried jackfruit, various mungbean food products, *batuan* various products, nipa-based products, and queen pineapple products.

The business pitches of the 19 generators highlighted target market, business model, roadmap and traction, marketing and sales, and financials, among others.

During his opening message, DA secretary Dr. William Dar

commended the technology developers as relentless partners towards a technology-empowered agriculture and fishery sector contributory to inclusive growth. He also encouraged the private sectors and budding agripreneurs to assist the DA and DOST in bringing the technologies to their intended users.

“Indeed, these innovations serve as a testament that our initiatives paved the way for their ventures and success. With all these collaborative efforts, I am hoping that they will widen the network of our beneficiaries as we connect the potential investors and collaborators from our network,” DOST Undersecretary for R&D Rowena Cristina Guevara emphasized.

Participated by DOST-PCAARRD and DA-BAR officials and staff led by executive director Dr. Reynaldo Eborra and director Dr. Vivencio Mamaril, technology inventors, evaluators, and potential investors, among others—the total number of participants in Cisco Webex and Facebook livestream is 1,117 and 6,217, respectively. ### **(Jireh Alodia R. Laxamana)**



DOST Undersecretary for R&D Rowena Cristina Guevara (first row, middle) and DA-BAR director Dr. Vivencio Mamaril (first row, 2nd from right) together with DOST-PCAARRD and DA-BAR officials and staff, technology inventors, evaluators, potential investors, and other participants during a photo opportunity

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# UPLB-IPB turns over planting materials, starter kits to DA



Dr. Jose V. Camacho, Jr., UPLB chancellor, turns over seedlings to Gerald Glenn F. Panganiban, DA-BPI assistant director and Urban Agriculture Program national director. Joining virtually are Agriculture Secretary Dr. William D. Dar and DA-BAR director Dr. Vivencio R. Mamaril.

In line with its goal to enhance the availability of Institute of Plant Breeding (IPB)-developed varieties and technologies to seed growers and farmers, the University of the Philippines Los Baños (UPLB)-IPB turned over seeds, seedlings, and Simple Nutrient Addition Program (SNAP) hydroponics starter kits (3S) to the Department of Agriculture (DA)-Urban Agriculture Program on 22 September 2021.

The abovementioned planting materials and starter kits were produced from the program titled, “Research for Development (R4D) Towards Upscaling of IPB-developed Varieties and Technologies,” which was funded by the DA-Bureau of Agricultural Research under the Stimulus Package for Agriculture under the Bayanihan Act II.

Agriculture Secretary William

Dar, in his message, believes that the partnership between DA and UPLB can be elevated much more, especially in this new normal environment, to meet the growing needs of the country.

*“Dapat may sapat na pagkain. Hindi lang sapat na pagkain, dapat din ang ating pagkain ay ligtas at nutritious,”* he said.

Dr. Jose V. Camacho, Jr., UPLB chancellor led the ceremonial turn-

**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](mailto:kmisd@bar.gov.ph). To subscribe, please send a formal request to our email.

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## Dragonfruit production, disease management highlight monthly in-house webinar

Streamed live by 364 viewers, the dragon fruit production and disease management highlight the monthly in-house webinar of the Department of Agriculture (DA)-Bureau of Agricultural Research held on 15 September 2021 via Facebook.

Plant pathology expert Dr. Mark Angelo Balendres of the University of the Philippines Los Baños-Institute of Plant Breeding served as the resource speaker.

He discussed the benefits

of consuming dragon fruit; the business of growing the fruit; and the production, management, plant diseases, as well as the research and production prospects.

Dragon fruit is considered as “the new money crop” by the DA-Bureau of Plant Industry. One kilo of the fruit costs around PHP 120-150 in the local market.

According to the Philippine Statistics Authority, total production area and volume increased more than 10 times from 2011 to 2020. Dr.

# Mushroom, vegetable processing technologies make its way to women's association and IP community



DA-BAR director Dr. Vivencio R. Mamaril provides his comments and suggestions to make the product competitive and penetrate the mainstream market.

The Department of Agriculture (DA)-Central Luzon's technologies on mushroom crackers and vegetable noodles were officially turned-over to Binbin Women Gardeners' Association (BWGA) and Binbin Igorots Association (BIA) during the Technology Transfer Ceremony and Product Launching cum Field Day on 28 September 2021 at Sitio Binbin, Brgy. General Luna in Carranglan, Nueva Ecija.

The said activity was part of the project titled, "Upscaling of

Mushroom Crackers as Additional Income Source of Indigenous People in Carranglan, Nueva Ecija in Support to ALPAS-COVID 19" funded by the DA-Bureau of Agricultural Research (BAR). The project aimed to upscale mushroom crackers as a healthy snack for Filipinos through BWGA by mass producing the product and marketing it to various Kadiwa markets and social media platforms.

DA-BAR director Dr. Vivencio R. Mamaril and DA-Central Luzon Research Division chief Dr. Irene M. Adion led the ceremonial transfer of technologies as well as the signing of the memorandum of understanding, and awarding of processing equipment to BWGA and BIA.

In his message, Dr. Mamaril commended the improvement of the product quality since its development. He provided comments and suggestions to make the product competitive and penetrate the mainstream market. Further, he stressed that compliance to needed requirements and good manufacturing practice shall ensure the quality and safety

of the product.

Expressing his gratitude, Dominguez Palangyos, BIA chairperson said, "*Kami po'y nagpapasalamat sa mga project na binibigay ninyo sa amin at kahit na pinakaliblib itong area namin ay natagpuan ninyo....sa katotohanan naman ay malaki ang naitulong nitong project dahil nadagdagan ang kabuhatan namin.*"

"*Maraming salamat po sa pagbigay ng project na ito sa amin. Madami pong naitulong at naging impact ito sa amin. Sa paggawa pa lang po ng mushroom crackers, natutunan namin gumawa at mag-produce rin ng fruiting bags,*" Crystal Diaus, BWGA secretary added.

Both associations hope that the developments made by the project will be sustained in their community. Further, seeking for continuous support in the establishment of their own office and processing facility.

The activity was attended by the members of BWGA, BIA along with the officials and representatives from the DA-Central Luzon and the LGU of Municipality of Carranglan. ### (Bernalin C. Cruz)

Balendres shared that the national average of production is at 3.2 metric tons per hectare.

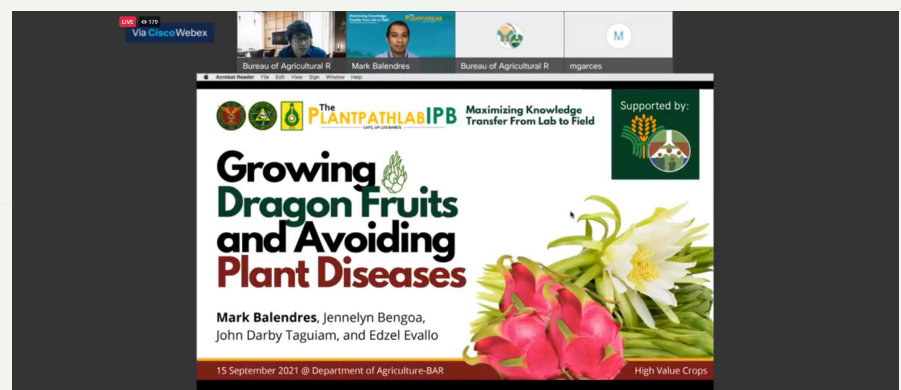
Based on reports, dragon fruit production can be profitable with good management practices.

Dragon fruit production requires an open field with direct exposure to sunlight. Soil should be sandy loam with high organic content and well-drained with a pH between 5.5 to 6.5.

Dr. Balendres encouraged interested growers to reach out to their municipal agricultural offices for a soil analysis to ensure that it is healthy for dragon fruit production.

The production of dragon fruit relies on sunlight and temperature. Hence the fruiting time in the Philippines is from May to October. However, this can be extended through off-season production by introducing additional lighting.

He stressed that some dragon



fruit varieties would not bear fruit without successful pollination. Assisted pollination is not required for self-fertile varieties but is encouraged for bigger fruits. In contrast, it is necessary for self-sterile varieties.

Harvesting at 28-30 days after flowering will give the ideal quality of the fruits. These can be stored at five degrees Celsius for up to four

weeks or 20 degrees Celsius for up to seven to 14 days, depending on varieties.

"Stem canker and anthracnose are major dragon fruit problems. Field sanitation, healthy planting materials, and avoiding overhead sprinkler irrigation are some of the measures to mitigate disease impact," explained Dr. Balendres. ### (Rena S. Hermoso)



# DA-BAR officials lead inauguration of Multi-purpose R4D Center



Key officials of DA-BAR and DA-Central Luzon lead the inauguration of the Multi-purpose R4D Center. PHOTOS: DA-CLIARC FOR UPLAND DEVELOPMENT AND GCESPIRITUD

Department of Agriculture-Bureau of Agricultural Research (DA-BAR) director Dr. Vivencio R. Mamaril, assistant director Joell H. Lales, and Research Coordination Division head Dr. Anthony B. Obligado led the inauguration of the Multi-Purpose Research for Development (R4D) Center at the DA-Central Luzon Integrated Agricultural Research Center (CLIARC) for Upland Development in Sto. Niño, Magalang, Pampanga on 17 September 2021.

Funded under the bureau's Research Facility Development Grant Program, the established R4D Center is geared towards increasing the production of upland crops in Central Luzon, hence, contribute in increasing the income of upland farmers.

Specifically, the said R4D center will provide venue for the efficient conduct of different researches on upland crops for tissue culture

propagation; development of protocols for upland crops production through vine cutting technique as production guide for upland farmers; and production of upland crops seeds, cuttings, or tubers.

DA-BAR assistant director Lales, as he conveyed the message of director Dr. Mamaril, commended DA-Central Luzon and reiterated Secretary William Dar's statement that "we need to build facilities that are made to last."

"Facilities like this are not only made to last but underscoring as well the legacy. As there are people handling, managing, or doing the work will not last but the services of the facilities are meant to last. So, for the next generations to come, the services, the functions should continuously benefit our ultimate clientele," assistant director Lales further said.

In response, DA-Central Luzon

regional technical director Dr. Arthur D. Dayrit, research division chief Dr. Irene M. Adion, and CLIARC for Upland Development station manager Dr. Emily A. Soriano thanked DA-BAR's support and hope that the new facility will provide a lot of services to the upland or rootcrop farmers and be used for breeding and formulating various upland crop production protocols. **### (Ma. Eloisa H. Aquino)**

## ◀2... UPLB-IPB turn-overs

over of R4D 3S to Gerald Glenn F. Panganiban, DA-Bureau of Plant Industry assistant director and Urban Agriculture Program national director.

Chancellor Camacho, Jr. mentioned that this is an important undertaking of the university in support to the agriculture department's Plant, Plant, Plant Program.

The program shall cover at least 10 DA-Regional Field Offices under the following components: 1) vegetables, field legumes, and root crops; 2) fruit crops; and 3) plant health and SNAP hydroponics. Specifically producing breeder seeds, breeder stocks of roots, planting materials, quality seeds and seedlings, among others while enhancing the testing and evaluation of elite lines and germplasm of various crops. **### (Ma. Eloisa H. Aquino)**

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