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DOST-FPRDI pilots improved barrels for fruit wines

By Rizalina K. Araral, DOST-FPRDI

Good news to makers of tropical fruit wines in the Philippines.

Quality yet affordable wine barrels for aging your fruit raw materials may soon be available in the market.

The Department of Science and Technology's Forest Products Research and Development Institute (DOST-FPRDI) is currently pilot-testing wine barrels made from three tree plantation species (TPS), namely: big-leafed mahogany (*Swietenia macrophylla*), mangium (*Acacia mangium*), and river red gum (*Eucalyptus camaldulensis*) and two fruit trees, namely: santol (*Sandoricum kojijape*) and Indian mango (*Mangifera indica*).

The wine barrels were developed by the Institute's researchers to find cheaper substitutes to white oak (*Quercus alba*) which is known worldwide as the best material for fermenting and ageing wine.

"Most local fruit wine makers use plastic and glass containers to ferment and age their wines," explains Project Leader Engr. Caesar Cuaresma. "So we are happy that with our wine barrel technology (WBT), they can have access to a quality but affordable option. It's almost like they're using imported barrels but at a lesser cost – about three times cheaper."

According to Cuaresma, their partner-fabricator, Angeles Woodworks Co. based in Sta. Rosa, Laguna, has already made sample barrels which are an enhanced version of the original.

"Several large distilleries and wineries have already signified their interest in our technology," he added. "To meet their needs, we are planning to do further studies for upscaling the barrels' capacities."

The DOST-FPRDI barrels have been certified safe by the WBT team as the wine aged in them had no adverse effects on test rats. Likewise the wine has been rated "moderately acceptable" by expert tasters who assessed it

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Pinoy OFW finds wood products making a profitable business

By Allan Mauro V. Marfal, DOST-STII



Benjie Inocencio was an Overseas Filipino Worker (OFW) in Kuwait for three years before he decided to start Journey Woodblock Enterprises. Through DOST's Small Enterprise Technology Upgrading Program or SETUP, Benjie's business grew and was able to generate livelihood for the unskilled carpenters in their area. (Screenshot from DOST Report episode aired via DOSTv Facebook page on 11 September 2020)

Witnessing how his father ran the day-to-day operation of their furniture business, Benjie Inocencio learned to appreciate the craft and the business. Because he was exposed to this enterprise at a young age, he learned the ins and outs of the woodworking and furniture making industry. Seeing the great potential of the business, Benjie was inspired to follow in his father's footsteps and looked forward to fulfill his lifelong dream.

Ready to spread his wing, Benjie went to Kuwait to work in a furniture company after college to gain more experience. However, since he does not have any certificate of employment to present, he was hired initially on a floating status and was assigned in the Sand Department.

"When I came there (in Kuwait), the huge challenge for me was to find a perfect job or task. I have never been employed when I was in

the Philippines, I used to do commission works as a carpenter and freelancer," said Benjie.

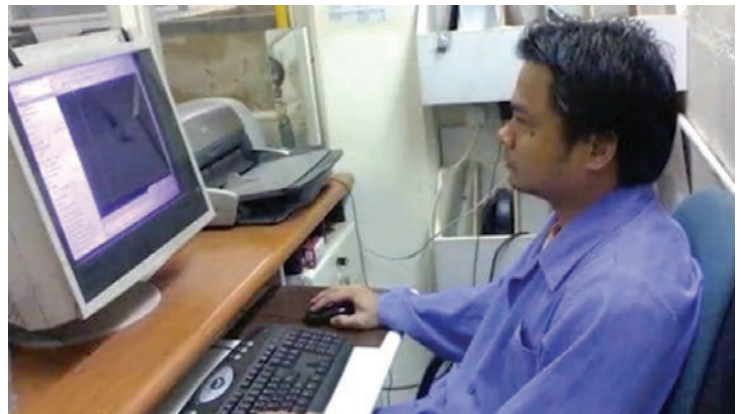
Benjie's determination to prove something and his eagerness to expand his knowledge were enough to find his perfect footing in his company. After six months, he eventually got promoted as a CNCC programmer.

When Benjie was about to establish a stable career in Kuwait, he still felt the urge to have his own company, and use the same kinds of machines and technologies in furniture making in the Philippines.

With the passion for the craft and desire to have his own company, Benjie opened Journey Woodblock Enterprises in 2012. It produces high quality solid wood furniture like modular cabinets, kitchen cabinets, built-in closets, countertops, drop ceilings, bed frames, double-deck beds, and other customized items.

The company also offered interior design,

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fit out, and renovation for condo units and commercial spaces. Because of their quality work, they were recognized as one of the design leaders in space management, and their commitment to innovation and modern design yielded for the company a comprehensive portfolio of kitchen and closets ideal for condominiums, homes, offices, mall spaces, schools, and other institutions.

In 2015, Benjie and Journey Woodblock Enterprises learned about the Small Enterprise Technology Upgrading Program or SETUP of the Department of Science and Technology (DOST) and how it can help micro, small, and medium enterprises (MSMEs). Wasting no time, Benjie applied for assistance to upgrade their production capability with the acquisition of a CNC Router Machine and an Edge Banding Machine, that resulted in increased production

output and efficiency, improved product quality, and increased business opportunities.

In 2020, the company again availed of the SETUP assistance to acquire a CNC Router with Automatic Tool Changer that will automate their milling process. With the growing demand for their products and services, the company realized the need to further improve their production capacity to meet growing demands through the acquisition of upgraded production equipment.

Through SETUP, the Journey Woodblocks Enterprises was able to increase its production output by 43% from 70 to 100 boards per month as well as improved its sales by 57% from seven million in 2015 to 11 million in 2019.

Additional to that, the company also achieved smooth and precise production process through the elimination of rejects in

production from eight to just three boards per month. This resulted in increased savings by as much as Php 100,000 per month by eliminating the outsourcing of processes.

According to Benjie, the terms of DOST for their SETUP beneficiaries are very ideal for many small businesses.

"You have three years to pay and you have a lead time of six months. It is almost free because, in the first six months, you were able to get the return on your investment immediately. DOST is creating a way for us to pay them back," said Benjie.

Benjie ended by sharing his gratefulness to DOST's SETUP as it becomes a source of inspiration for many aspiring Filipino entrepreneurs and he hopes that many more Filipinos would benefit from it, just like him.

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for color, bitterness, sweetness, clarity, flavor, aftertaste and general acceptability.

According to Cuaresma, the WBT does not in any way contribute to deforestation as it makes use only of wood from tree plantation

species and old, unproductive fruit trees.

The pilot-testing is funded by the DOST's Technology Innovation for Commercialization (TECHNICOM) and will run until December 2020.



The DOST-FPRDI fruit wine barrels make use of wood from tree plantation species and old, unproductive fruit trees. (Photos from DOST-FPRDI)

ABOUT US

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4th Indie-Siyensya promotes science through film

By Marco D. Melgar, DOST-SEI

Photos from DOST-SEI

With a lineup of finalists that effectively portrayed the contest theme, “Communities Beyond the Naked Eye,” determining the best films of the 4th Indie-Siyensya Filmmaking Competition was surely a tough task for the Board of Judges. In the end, though, the title of Best Film for the Open and Youth Categories was conferred to entries that went beyond the criteria of scientific content, idea execution, and film technique.

The judges referred to the fourth criterion as “impact.”

For this reason, the films “Into the Minuscule World of Ants” by Heinrich Domingo of Quezon, Isabela and “Sansala” by Cyah Angela Somblingo of the youth organization Focus Cavite were hailed as the Best Films in the Open and Youth Categories, respectively.

These two creative filmmakers won against a total of 23 entries in the Open Category and 55 entries in the Youth Group Category.

Because of the pandemic, the victors were given their recognition on 30 September 2020 in an online awarding ceremony that premiered live at the Department of Science and Technology – Science Education Institute’s (DOST-SEI) social media page.

Open Category

The film titled “Into the Minuscule World of Ants” documents the growing ant-keeping community in the Philippines led by Youtube personality, Mikey Bustos, who has 3.3 million subscribers. Filmmaker, Domingo, said that making the film made him realize there are many scientific groups and communities that are not popularly shown in the media.

“My exposure to the ant-keeping community showed me that there are hundreds of Filipinos venturing into scientific fields like biology that remain unseen. Also, shooting this documentary film made me see the alternative avenues where science is learned” he said.

He said he feels honored to have competed against great filmmakers with equally interesting tales and narratives, and that the win will inspire him to make more films.

“Our communities are filled with stories that need to be told. We do not need to chase stories. Instead, our local tales and narratives are more than enough to make captivating films.” said Domingo who earned a cash prize of PhP 100,000 and a trophy.

The second place in the Open Category was the film titled “Pauwikan,” a documentary about the nature and diversity of the turtle sanctuary in San Juan, La Union done by Gerylle Vanmarie



Film still from “Into the Minuscule World of Ants”

Palabay of the Film & Media Arts International Academy. The entry won PhP 50,000.

Incidentally, Palabay’s “Pauwikan” also secured the Viewers’ Choice Award for receiving the highest number of votes during the film screenings. The film got the PhP 20,000 cash prize for this special award.

The third best film went to Edward Laurence Opena of Opena Cinematics / Cebu Normal University for his film, “The Man Who Talks to Fishes,” that narrates how a man enabled the Gilutongan Marine Sanctuary to become one of the country’s top marine sanctuaries. The third winner was awarded PhP 30,000.

Youth Category

In the Youth Category, winning film “Sansala” tackles microplastic pollution in the locale of Dalahican, Cavite City. The documentary film explores how microplastics gravely affect the environment and the people relying on the sea for their livelihood.

The young filmmaker, Cyah Angela Somblingo, who is a second-timer in the

competition, referred to the win as their team’s “comeback victory” after placing second last year for their film, “Lambat.” This time, they bagged the PhP 100,000 cash prize and the top trophy.

“This year was our comeback victory where we were able to finally get a hold of the title. Making a film alone and entering it in a competition is already a milestone for amateurs like us, and this victory was more than enough to stir our passion in filming,” Somblingo said.

The team considered this opportunity to echo to the residents of Dalahican the results of their microplastic experiment done during the making of the film as their most memorable experience.

“Educating people is something that we really enjoy. And being able to reach the hearts of thousands of people through a single film was like living a dream,” she added.

Completing the Top 3 in the Youth Category were the films “Sisto” by Ma. Diana Balansag from Bukidnon National School of



Film still from “Sansala”

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DOST-STII leads DOST in gender-fair language practices

By **Christel Castillo**, *DOST-STII*



Screenshot from the virtual Executive Briefing on Gender Mainstreaming on 10 September 2020

"The agency (DOST-STII) could be the benchmark of other DOST agencies," Maria Fe Singson, Supervising Science Research Specialist and the Department of Science and Technology-Gender and Development Focal Point System (DOST-GFPS) member, said during the virtual Executive Briefing on Gender Mainstreaming, held on 10 September 2020 for DOST-Science and Technology Information Institute executives and GAD-TWG.

DOST-Science and Technology Information Institute (DOST-STII) was among the eight agencies in the DOST to have an endorsed GAD Plan and Budget (GPB). Singson also commended the agency for its timely submission of the Gender Mainstreaming Evaluation Framework (GMEF) scoresheet, citing its improved evaluation that has evolved over the past years.

Richard P. Burgos, DOST-STII director and GFPS chairperson said that this is due to the

whole system's collective effort and support from the management. He also emphasized that this is only the beginning of the agency's GAD mainstreaming.

However, Singson stressed that the agency should continue its programs such as the gender-fair media trainings and language checker software development, as it is the only attached agency that focuses on science, technology, and innovation (STI) information content development and promotion.

This GAD Executive Briefing served as a refresher course on Gender Mainstreaming that helped the agency design the next steps towards their GAD goals. Furthermore, this briefing is among the activities included in the recently recalibrated 2020 GPB, which was endorsed by the Philippine Council for Women (PCW) in August.

As proof of the agency's commitment to the GAD agenda and advocacy, two of its flagship programs were reported to have adhered to gender-fair language practices. DOSTv, the official television program of the DOST, and STARBOOKS were included as attributed programs, helping the agency reach the 5% GAD allocation on the overall budget despite of the reduced cost of most activities due to the pandemic.

To ensure continuity, the next steps that the agency plans to embark on is to properly utilize its data and formulate the GAD Agenda to appropriately craft its roadmap for the next five years.

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Home Industries at second place and "Beyond: Escherichia coli" by Juliana Milanbilen from Tagaytay City Science National High School was adjudged third place.

"Sisto" depicts the problems encountered by the people of Barangay San Miguel in Maramag, Bukidnon with the Schistosomiasis disease, while "Beyond: Escherichia coli" tackles the unseen community of the E.Coli bacteria and its nature. The films won PhP 50,000 and PhP 30,000 cash prizes, respectively.

DOST-SEI Director, Dr. Josette Biyo, congratulated the winners and finalists for taking the competition to a higher level with

the much-improved quality and messaging.

"We're very happy with the films we received this year and we're especially impressed by how they tell their stories effectively and in a manner that does not stay away from science," Biyo said. "We envision our scientists to be able to communicate their works effectively and film is definitely a great platform. For this, we're very proud of our contestants."

This year's Board of Judges include Dr. Garry Jay Montemayor of the College of Development Communication, University of the Philippines Los Baños (UPLB); Director Seymour Sanchez from the De La Salle-College of Saint and

Far Eastern University; Prof. Patrick Campos, Director of the UP Film Institute; renowned entomologist, Dr. Aimee Lynn Dupo of the UPLB Museum of Natural History, and Dr. Ruby Cristobal of DOST-SEI.

Indie-Siyensya, now on its fourth-year run, remains one of DOST-SEI's main platforms to promote a culture of science in the country. The competition is also the agency's response to the growing field of science communicators that use film as a medium of information dissemination and a creative way to effect behavior change.