



Ilocos S&T Trends



THE OFFICIAL NEWSLETTER OF THE DEPARTMENT OF SCIENCE AND TECHNOLOGY- REGIONAL OFFICE NO. 1

ENTERED AS SECOND-CLASS MAIL MATTER AT THE SAN FERNANDO CITY, LA UNION POSTAL OFFICE

January - March 2020

DOST 1 SUPPORTS COVID-19 FRONTLINERS *by: John Oliver E. De Vera*

In support of the nationwide efforts to contain the pandemic Corona Virus Disease or COVID-19, and to fortify the spirit of our frontliners, the Department of Science and Technology Regional Office 1 (DOST-1) provided our healthcare workers and emergency responders across the region with Personal Protective Equipment (PPE).

Since the declaration of the Luzon-Wide Enhanced Community Quarantine (ECQ), various government offices and private organizations cooperated with one another by maximizing available resources and through convergence with stakeholders in helping to cope with the pandemic.

With this, DOST-1 provided and distributed a total of 170 gallons of alcohol, 9, 500 pieces of reusable/washable facemasks and face shields to COVID-19 frontliners of different government and private institutions in the region such as the Ilocos Training and Regional Medical Center (ITRMC), Lorma Medical Center, Bethany Hospital Inc., La Union Medical Diagnostic Center Inc., La Union Medical Center – Agoo, Provincial Health Office of La Union, City Health Office of the City of San Fernando, Bureau of Fire Protection personnel deployed at the checkpoint along Villasis and Rosales, Pangasinan boundary, and Provincial Disaster Risk Reduction and Management Offices of La Union, Pangasinan, Ilocos Sur, and Ilocos Norte.

“We acknowledge the perseverance, efforts, and sacrifices of every individual and institution in addressing the spread of COVID-19. This is our little way of helping our frontliners (healthcare workers and emergency responders) who are at their post 24/7 battling against this pandemic COVID-19,” said Dr. Armando Q. Ganal, Regional Director. He also said that through these PPEs, the chance of our frontliners in contracting the dreaded disease from those persons with confirmed cases and/or under investigation and monitoring is minimized if not eliminated.

Indeed, the Bayanihan spirit lives on in the heart and soul of every Filipino people in this challenging time. DOST-1 believes that every effort from each and everyone would create a ripple of effects; thus, DOST-1 continues to extend its unwavering support not only to researches and technologies that address the pandemic but also to all healthcare, security, media, and other frontliners during this crisis.



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409 GRADUATING HIGH SCHOOL STUDENTS QUALIFY FOR 2020 DOST SCHOLARSHIPS *by: Jayce M. Andres*

Out of 5,655 senior high school students who took the 2020 S&T Undergraduate Scholarship Examination, 409 qualified for RA 7687 (S&T Scholarship) and Merit Scholarships implemented by the Department of Science and Technology. Through the Science Education Institute (DOST - SEI), the list of qualifiers was officially released on Sunday, March 29, 2020.

Out of the total passers, 267 qualified for the RA 7687 Scholarship. These are gifted students who belong to economically disadvantaged families; while 142 are eligible for the DOST-SEI Merit Scholarship.

The new DOST-SEI scholars will enjoy various benefits such as monthly living allowance amounting to PhP7,000 regardless of the scholarship category, tuition and other fees not exceeding PhP20,000 per semester for scholars who will study in private schools, book allowance amounting to PhP10,000 per Academic Year, one-time PhP1,000 uniform allowance, one economy-class roundtrip fare per year for those studying outside of their home province and group health & accident insurance.

Scholarship qualifiers must enroll in any of the University of the Philippines campuses; state universities and colleges; or private higher education institutions recognized by the Commission on Higher Education as Centers of Excellence or Centers of Development or higher education institutions with level III accreditation from the Federation of Accrediting Agencies of the Philippines for the S&T priority program they will enroll in.

DOST-SEI also included additional priority courses covered by the S&T Scholarship Program effective SY 2020-2021. These include BS Speech Pathology, BS Architecture, Bachelor in Technology and Livelihood Education with Specialization in Information and Communications Technology, BS Agribusiness, and BS Animal Husbandry. The complete list of priority S&T Programs can be found in the DOST-SEI website (<http://sei.dost.gov.ph/index.php/programs-and-projects/scholarships/undergraduate-scholarships>).

A few years from now, these students will become key players in the country's development," DOST Secretary Fortunato T. De La Peña said. "We hope that the DOST scholarship programs can help them pursue their dreams in the S&T field of their choice." DOST-SEI scholars are required to render service in the country after graduation, preferably within their fields of specialization for a period equivalent to the number of years they enjoyed the scholarship as a return service. DOST-SEI maintains its resolve that this strategy allows the country's industries to have "the best minds" to do their services and products.

The country's premier science scholarship examination which was held on October 20, 2019 in different testing centers nationwide, recorded the highest number of examinees with 102,526 graduating high school students both in Science, Technology, Engineering and Math (STEM) and non-STEM students who belong to the top five percent of graduating students.

Each qualifier will receive a notice of award from DOST-SEI or the DOST Regional office stating the date of orientation and signing of Scholarship Agreement.



The Ilocos S&T Trends is published quarterly by the Department of Science and Technology Region I (DOST I) with editorial office at Don Mariano Marcos Memorial State University - Mid La Union Campus, Catbangen City of San Fernando, La Union

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JUNIOR LEVEL SCIENCE SCHOLARSHIP APPLICATION, NOW ONLINE by: Jayce M. Andres

**BE THE NEXT
DOST-SEI SCHOLAR!**

**2020 JUNIOR LEVEL SCIENCE
SCHOLARSHIP (JLSS)**

ONLINE APPLICATION IS NOW OPEN!

Interested applicants are required to apply online at:
https://www.science-scholarships.ph/jlss_app/

#dost1ph
#ScienceForThePeople
#MaglingDOSTScholarKa

SCIENCE EDUCATION INSTITUTE
Department of Science and Technology

0916-239-7003 (Globe)
0998-256-3506 (Smart)

dost1.scholarships@gmail.com

/Dost 1 - Scholarship

<http://sei.dost.gov.ph/>

Deadline of Online Registration: **MAY 29, 2020**

Deadline for Completion of Requirements: **AUGUST 28, 2020**

Date of Examination: **OCTOBER 24, 2020**

The Department of Science and Technology-Science Education Institute (DOST-SEI) opens its E-Scholarship Application System for the 2020 Junior Level Science Scholarship (JLSS) Program for regular second year college students or incoming third year college for School Year 2020-2021.

The JLSS Program is one among the state scholarships offered by the government thru DOST-SEI to talented and deserving 3rd year college students pursuing degree programs in the science and technology priority courses and aims to increase S&T human resource towards national progress.

Interested applicants can file their application online at https://www.science-scholarships.ph/jlss_app/#/register. Just fill in the online form and follow the instructions.

The eligibility requirements are as follows: Applicants should be a natural-born Filipino citizen; incoming regular 3rd year college student in a priority S&T course with a general weighted average (GWA) of at least 83% or its equivalent; resident of the municipality as attested by the barangay; has good moral character; and in good health. He/She must also pass the qualifying examination.

The online application system can assess if the applicant is eligible for the S&T scholarships. Once the applicant passed the eligibility requirement, the application process will continue, and all supporting documents should be uploaded in the system. Qualified applicants will receive their test permits via email three weeks prior to the examination date.

The deadline for the online application is set on May 29, 2020 (Friday), deadline for completion of requirements for successful online registrants is on August 28, 2020 (Friday) and the nation-wide qualifying examination will be on October 24, 2020 (Saturday)

Passers for the 2020 JLSS will enjoy various scholarship benefits such as monthly living allowance amounting to Php7,000 regardless of the scholarship category, tuition and other fees not exceeding Php20,000/sem for scholars studying in private schools; book allowance amounting to P10,000 per Academic Year; transportation allowance; and group health insurance. DOST SEI also offers Practical Training Program (PTP) to Junior/ Senior scholars who do not have an OJT program in their course curriculum wherein they will be provided with two months stipend. A P10,000 thesis allowance as support to finish their thesis will also be provided.

For more details, you may visit the DOST-SEI website at <http://www.sei.dost.gov.ph/> or call the DOST Region 1 Scholarship Unit at 0915-058-1916 (Globe) / 0998-256-3506 (Smart) or email us at dost1.scholarships@gmail.com.

DOST PREPARES GRADUATING SCHOLARS ON JOB HUNTING, SEC BOY INSPIRES THEM IN EXIT CONFERENCE *by: Venus P. Andaya*



In partnership with the Department of Education Region I, partner state universities/colleges and scholar-graduates, the Department of Science and Technology Region 1 conducted seminars on Job Hunting Strategies and Employment Generation, and Exit Conference to DOST Science Education Institute (DOST-SEI) graduating scholars.

Out of 153 graduating scholars this year, 149 attended the Seminar on Job Hunting and 151 in the Exit Conference.

During the seminar, relevant topics were discussed to match the current trends of job-hunting process. Topics discussed include Personality Development, Assertiveness in Job Hunting, Resume Writing, Career Guidance and Employment Coaching, Work Ethics, Employment Testing, Life Skills, Stages of Employment (Before, During and After Employment), Strategic Human Resource Management: Career Development, Management and Stages, Communication, Organizational Behavior, Project Jobs Fit and The Ant Philosophy.

After the discussion, real scenario of the job hunting process is held. The participants submit their curriculum vitae, resume, or biodata and their application letters. The shortlisted scholar-applicants underwent the panel interview headed by the resource speakers from the Department of Labor and Employment and representatives from SUCs.

In a speech, DOST Secretary Fortunato T. Dela Peña urged the graduating scholars to excel in each of their fields as he shared with them his journey before he became the secretary of DOST. He also presented the big 20 projects of DOST this 2020, giving the graduating scholars more excellent vision and desire to help and

be part of the growing S&T human resource who will be of help in resolving issues through science and technology while executing the core values of a true Filipino Patriot Scholar.

These yearly activities are done to prepare the scholars for a more competitive employment market. It is essential to give the scholars this kind of preparation for them to develop an agreeably high level of confidence for the real-world scenarios they will be in the future, particularly in the stricter job search process nowadays. These will also enable them to learn how to maximize and use their skills and potentials to withstand the very challenging and competitive job-hunting process in our country.

The Exit Conference with graduating scholars, on the other hand, is also a way to remind the scholars on their roles and responsibilities in nation-building and to reintegrate the values of the scholars in relation to their commitment with DOST-SEI. Their participation also will be a good start in reiterating the significance of the three core values that we want them to embrace: servant leadership, professionalism, and patriotism. They will suffice the adequate supply of human resources that our country needs for the common good and the betterment of our country. The exit conference also aims to provide them with information concerning career opportunities, particularly in the industry in Research and Development (R&D) and about DOST-SEI graduate scholarship programs.

Moreover, the Department of Education Region 1 discussed their role in the implementation of RA 10612 and RA 7687. Also, the different guidelines and policies to emphasize the responsibilities of the scholars, remembering their commitment stipulated in the Scholarship Agreement, specifically on their service obligation. The graduate scholarship programs of DOST-SEI are also presented.

In line with the objective of the SEI to provide steady and reliable human resources, the two-day activity helped in providing a reliable and dependable human resource needed in escalating the condition of our country. With the dedication and commitment of our DOST scholars for the people, inclusive development will be obtained and realized.

SECRETARY DE LA PEÑA VISITS SETUP-ASSISTED FIRMS IN ILOCOS NORTE

by: Laurine Sales



DOST-1 Regional Director Ganal and DOST Secretary De la Peña visits NGT Health and Wellness Center in Laoag City and Greenthumb Food Depot in San Nicolas.

Department of Science and Technology (DOST) Secretary Fortunato T. De La Peña visited two enterprises assisted under the Small Enterprise Technology Upgrading Program (SETUP) through its Ilocos Norte Provincial Science and Technology Center last March 5, 2020.

The “Tibicos” also known as kefir is produced by the NGT (Nature’s Greatest Treasure) Health and Wellness Center in Brgy. Rioeng, Laoag City, is owned and managed by Dr. Marilou Honey B. Tamayo. During the visit, Dr. Tamayo was not able to meet the Secretary personally as she has a scheduled radio program in Malolos, Bulacan. However, through a phone call and live video chat, Dr. Tamayo was able to express her gratitude that the DOST Secretary visited the manufacturing area of the firm. She stated that through the support and interventions provided by the DOST, the tibicos product became successful.

Dr. Tamayo also introduced the tibicos product, formulated to work for the metabolic system. The product is made of all-natural fruits and vegetables, which is good for one’s metabolism. She also added that tibicos has a probiotic that has live bacteria and enzymes.

Moreover, Secretary De La Peña expressed his appreciation to DOST-1 for assisting an enterprise producing a very innovative product under the category of probiotics. He also added that the firm is following the current Good Manufacturing Practices and is already Food and Drug Administration (FDA) approved and Halal certified.

The other firm visited by the Secretary was Greenthumb Food Depot in San Nicolas. The firm is a manufacturer of various dimsum products owned by Mr. Moises Javier. Greenthumb is already in its second phase of availing the DOST-SETUP assistance. Through the SETUP, the firm has acquired a fully automatic siomai machine. During the visit, the Secretary was able to see the newly expanded production area, facilities, and the finished products of the enterprise.

The project visits were facilitated with the presence of Secretary De La Peña during the 6th National Research Conference in Science and Mathematics Education held at the Fort Ilocandia Resort Hotel in Laoag City, Ilocos Norte. He was accompanied by DOST 1 Regional Director, Dr. Armando Q. Ganal, and Ilocos Norte Provincial Director Jonathan M. Viernes.



DOST-1 CONDUCTS TECHNOLOGY NEEDS ASSESSMENT VALIDATION TO PROSPECTIVE SETUP BENEFICIARIES IN REGION 1 *by: Adrienne Margaux Q. Dolores*



The Technology Needs Assessment (TNA) Validation is done to confirm the identified technologies and interventions. TNA validators include Regional Program Management Office (RPMO) staff, Regional Technical Evaluation Committee Member, and Provincial S&T Directors.

Prospective beneficiaries visited were Mushroomeneta Farm and Food Products, Damacuag Farmers Association Inc., Ezekiel Integrated Organic Farm, Fred-Invo Auto Supply & Car Care Center, Minyang's Food Products, Betchay Food Manufacturing, Onacoli Food Products, Western Magsingal – Sto. Domingo Irrigators Association, Baptista Furniture, The Sisters Royal Bibinka & Food Products, and Carl Louie's Vigan Longganisa in Ilocos Sur; Delmar Shell Crafts MPC, Talingaan Cassava Growers Association, Mango King, Currimao Bagnos MPC, Venize Exclusive, Mabaleng Bamboo Craft, and Garnaden Food Products in Ilocos Norte; Tessie Mushroom House Food Products, Jobi's Mushroom Products, Renzekiel Woodcraft; Climate Resilient Agriculture Benefits of Burgos Cooperative (CRABBCo); Cabarsican Rural Improvement Club; and Dagup Agrarian Reform Cooperative and Naguey Rural Improvement Club in La Union; and JM Salt Manufacturing, Damortes Centro Banaba Farmers Association, Dasol Vegetable Growers Association, and Healthy Choice Café in Pangasinan;



SETUP assists qualified micro, small, and medium enterprises (MSMEs), to improve their productivity and competitiveness by providing comprehensive assistance through application of appropriate technologies to grow and develop products, services, and operations; human resource training, technical assistance, and consultancy services; design and execution of functional packages and labels; assistance for compliance with regulatory and market standards such as testing and calibration services; and provision of financial aid to facilitate acquisition of appropriate technologies and implement technological innovations.



The program focuses on the following sectors: food processing; furniture, gifts, decors, and handicrafts; agriculture; marine, aquaculture, forestry, and livestock; metals and engineering; information and communications technology; health & wellness products, Halal products & services; and other regional industry priorities.

DOST-1 SETUP conducts TNA Validation in Ilocos Norte, Ilocos Sur, La Union, and Pangasinan to evaluate and finalize qualified beneficiaries for the program.



DOST-SETUP BACKS TECHNOLOGY ENHANCEMENT OF PANGASINAN POULTRY FARM *by: Kate Ronquillo*



J.V.P. Farm owner Mr. Joseph V. Peralta (third from the left) proudly receives SETUP assistance. With him are: (from left to right in the photo) Engr. Arnold C. Santos, OIC-Provincial Director of Pangasinan Science and Technology Center, Mrs. Gemma C. Peralta, and DOST-1 Regional Director Dr. Armando Q. Ganal.

The Department of Science and Technology (DOST) through its Small Enterprise Technology Upgrading Program (SETUP) has awarded an innovation fund worth PhP3,000,000.00 to J.V.P. Farm of Brgy. Lunec in the Municipality of Malasiqui, Pangasinan last March 6, 2020.

J.V.P. Farm is a poultry farm owned and managed by Mr. Joseph V. Peralta. With an initial capitalization of PhP3,500,000.00, his poultry operations started in 2011 with only one (1) building with a capacity of 35,000 birds. On the following year, another poultry house was established with the same bird capacity. Since livestock production can have unfavorable impacts to the environment, the farm has acquired its Permit-to-Operate from the Department of Environment and Natural Resources through its Environmental Management Bureau for the farm's two-deck poultry houses.

In 2016, the poultry farm consulted the DOST regarding their problem on the broiler mortality and low feed conversion ratio (FCR) of the birds. With the thorough evaluation of the DOST's technical consultants, the SETUP project was then approved for funding and implementation. The farm received PhP1,999,845.00 from DOST-SETUP for the purchase of 7,017 units of plastic slat matting as an intervention for the foregoing concerns. The corrosion-resistant feature of the plastic slat matting can withstand high levels of acidity and alkalinity of disinfectants used in cleaning and decontaminating the poultry houses, making the process less tedious. A training on proper installation and cleaning system for these plastic slat matting was also provided to orient the farm workers on the maintenance of the material.

In November 2019, J.V.P. Farm has satisfactorily fulfilled its obligation to the project. Mr. Peralta again sought the assistance of DOST, in hopes of getting a second phase of the SETUP assistance for his growing poultry business. This time, the farm needs upgrading of the ventilation, feeder and drinker systems of the poultry houses. For this project's second phase, the DOST funded the acquisition of fourteen (14) units of 52-inch diameter fans with wind meter, temperature and humidity sensors for the improvement of the ventilation systems of the poultry houses. Also, one (1) unit of 5-line automated feeder system and one (1) unit of 6-line automated drinker system will be purchased through the fund.

SETUP continues its endeavor to strengthen the country's innovation system through the provision of technological innovations to MSMEs to enhance operational efficiency thereby boosting their productivity and competitiveness. In 2019, forty (40) MSMEs from the Ilocos Region were enrolled to the Program. This year, the program is set to adopt fifty (50) MSMEs in Region 1.

DOST-1 AWARDS STARBOOKS TO SINAPANGAN NATIONAL HIGH SCHOOL *by: Adrienne Margaux Q. Dolores*

Hoping to provide students with resources that stimulate their interest in engaging science and technology activities, the Department of Science and Technology Regional Office No. 1 (DOST-1) awarded a Science & Technology Academic and Research-Based Openly Operated Kiosk Station (STARBOOKS) to Sinapangan National High School in Balaoan, La Union last March 4, 2020.

STARBOOKS is a “library in a box”, containing thousands of digitized science and technology resources such as educational videos, dissertations, supplemental readings, disaster risk reduction materials, instructional videos, and other sources gathered all over the world. It boasts of accessibility as a stand-alone information kiosk which can be operated even without Internet connection.

STARBOOKS is a project of the DOST- Science and Technology Information Institute (DOST-STII) which aims to boost the interest of Filipinos in enrolling in Science and Technology courses, stimulate great, curious minds to engage in innovative inventions and developments, and inspire people to commit to entrepreneurship and research.

Present during the awarding is Mr. James Prepose of the DOST-1 Learning Resource Center and Ms. Nancy Hoggang, Principal of Sinapangan National High School, together with her co-teachers.

Mr. Prepose provided the teachers with a quick orientation and tutorial on STARBOOKS, teaching them how to create their accounts and showing them the various features and collections included in the digital library.

DOST-1 hopes that providing students with such resources will stimulate their interest in engaging on science and technology activities. DOST-1, together with DOST-STII, remains committed to providing people with technologies that promote science and technology for a more innovative, engaged, and empowered citizenry.

This is the 2nd STARBOOKS installed this year and the 302nd for the whole of Region 1.



Mr. James Prepose, Project Assistant II of DOST 1 introduces STARBOOKS to teachers of Sinapangan National High School, providing insights on how the library operates

REGIONAL STANDARDS AND TESTING LABORATORY

DOST1 LEADS THE ESTABLISHMENT OF THE ILOCOS REGION LABORATORY NETWORK *by: Annalie L. Rosales*



The Department of Science and Technology Regional Office I - Regional Standards and Testing Laboratory (DOST1-RSTL) initiated the concept on the establishment of the Ilocos Region Laboratory Network (i-LabNet). This network of laboratories aims to collaborate for an integrated service of all the existing laboratories in the region, to enhance laboratory testing and analysis for their clients. The program is based on DOST's OneLab Program, which integrates participating laboratories from across the country through an IT-based Referral System. This allows the seamless handling of samples from receiving, referral, transport, and analysis to the prompt delivery of calibration and testing reports, no matter where the customers are in the Philippines and other parts of the world.

An initial meeting and focused group discussion was conducted last March 4, 2020 at the DOST-I, participated by representatives of laboratories from the Department of Agriculture - Regional Field Office 1 (DA-RFO1), Environmental Management Bureau Region 1 (EMB R1), Bureau of Fisheries and Aquatic Resources Regional Office 1 (BFAR R1), Ilocos Training and Regional Medical Center (ITRMC), Mariano Marcos State University (MMSU), and PrimeWater Ilocos Norte.

The overview and journey of the RSTL in acquiring the accreditations and mandatory certifications was presented by the RSTL Laboratory Head and Senior Science Research Specialist, Ms. Anita Criste. She also discussed the services of the four laboratories: Chemistry Laboratory, Microbiology Laboratory, Shelf-life Testing and Sensory Evaluation Laboratory, and the Regional Metrology Laboratory. This was followed by the presentation of the OneLab Program by Mr. Decth-1180 P. Libunao, Science Research Specialist II. He emphasized the importance and benefits of the network, not only to the clients in the region but also to the member laboratories. With focus on quality and reliability of results, and the ISO/IEC 17025:2017 accreditation, test reports of OneLab member-laboratories are accepted worldwide. The networking also allows the members to share best practices with the goal of enhancing their methods and competencies.

The group then discussed the membership to the i-LabNet their future plans including new test methods and application for accreditation and certifications, the inclusion clauses for the Memorandum of Agreement between the laboratories, and plans for the Capacity Building Sessions for the analysts. The priority topics for the sessions include Awareness on ISO/IEC 17025:2017, Hazard Waste Management, and Calibration/Metrology. Other topics to be included are Magna Carta 1121, Auditors Training, Internal Quality Audit, Document Preparation Workshop, and the Chem Law. The Regional Metrology Laboratory also presented their services to the group. The session ended with a tour of the RSTL facilities.

● PROVINCIAL S&T CENTER UPDATES

ASSISTED LOCAL FOOD HANDLERS AND MSMES UNDERGO TRAINING ON FOOD SAFETY IN ILOCOS NORTE *by: Laurine R. Sales*

Twenty-four food handlers of various DOST assisted cooperatives, associations, and Micro, Small, and Medium Enterprises (MSMEs) in the Province of Ilocos Norte were trained on the current Good Manufacturing Practices (cGMP) with emphasis to food safety. The two-day training-seminar was conducted at the Ilocos Norte Provincial Science and Technology Center in the City of Batac last February 21 and 22, 2020.

The training aimed to equip the local food handlers with the basic principles of cGMP and food safety as they are the front liners in the preparation of food.

The training was spearheaded by Mr. Jonathan M. Viernes, Provincial S&T Director, and Mr. Hero D. Galamgam, Microbiologist and Science Research Specialist from the Regional Standard and Testing Laboratory (RSTL) of DOST 1.

PSTD Viernes introduced the guiding principles of Good Manufacturing Practices (GMP) for the Philippine Food Industry. He discussed the requirements of GMP and its importance and benefits in the food business. He also emphasized the importance of Republic Act No. 10611, also known as the "Food Safety Act of 2013". He encouraged the local food handlers to be more responsible in preparing safer food for consumers because establishing a name in the industry is hard to make.

Mr. Galamgam, on the other hand, discussed basic food hygiene and food safety hazards. He emphasized the importance of sanitation and proper handwashing, securing permits and health certifications, prevention of crisscrossing in the production area, and food safety, considering the environment hygiene, design, and construction of facilities and equipment. Proper maintenance or control practices before, during, and after the production, among others, were also tackled.

On the second day, the speaker organized the groupings of participants and had a workshop on the lay-outing of the production processes of their respective firms. The purpose of the activity is to outline the production processes of the firms and plot or draw their actual arrangements in their production area to avoid crisscrossing in the process. This will help the firm organize their production process to be more systematic and to comply with the Food and Drug Administration (FDA) requirements based on the collaborative recommendations of the speakers and participants.



Participants present the production processes of their firms

DOST-I AND PSTC-ILOCOS SUR AWARD DRYING FACILITY TO VIGAN CITY FARMERS *by: Donnabhel Ann M. Flores*

Through the request and initiative of Vigan City Mayor Hon. Juan Carlo S. Medina, the Department of Science and Technology Region I (DOST-I) through the Ilocos Sur S&T Center awarded six (6) sets of Portable Solar Dryers (Portasol) to the City Agriculture and Fisheries Council (CAFC) of Vigan City last March 10, 2020 at the Vigan Conservation Complex.

DOST-I Regional Director Dr. Armando Q. Ganal said that Vigan City is the first to be granted with the Portasol technology in Ilocos Sur. He also hopes that the city will adopt more DOST technologies not only in the agriculture sector but also in the health sector, such as the Biotek-M Dengue Detection Kit.

Mr. Ramon S. Sumabat, Provincial Science and Technology Director of Ilocos Sur, said that the Portasol dryers are not only for rice and corn but can also be used for high-value crops like coffee beans, shallots and hot peppers.

On the other hand, Mayor Medina encouraged the farmer-beneficiaries to adopt the Portasol technology, emphasizing its advantages over the old and hazardous practice of drying along highways.

In response, Mr. Maximo Rabanal, the City Agriculture and Fisheries Council (CAFC) Chairman, expressed the group's gratitude to the city government of Vigan for their unending support to farmers, and to the DOST for providing efficient technologies that aid and improve existing processes.

Portasol aims to eradicate the country's annual post-harvest losses of about Php15 billion. A set of Portasol is composed of 12 multi-purpose drying trays, pyramid roof rack, and a hood. It can be used even



DOST-I Regional Director Armando Q. Ganal and Vigan City Mayor Juan Carlo S. Medina awards the Portable Solar Dryers to City Agriculture and Fisheries Council (CAFC) Chairman Maximo Rabanal

during cloudy days by stacking the trays and shrouding it with the hood. Portasol is a drying facility invented by Filipino inventor Francisco "Ka Popoy" Oral Pagayon.

Also present during the ceremonial awarding event were Vigan City Vice Mayor Hon. Lourdes Baquiran, Sangguniang Panlungsod Members Hon. Liborio Arca, Hon. Ramil Arce, Hon. Francisco Arturo Ranches III, Hon. John Patrick Singson, Hon. Janina Carine Medina-Fariñas, ABC Vice President Hon. Edmund Supnet, PPSK Vice President Mary Ann Ataup and City Agriculture Officer-In-Charge Lito Forneas.

DOST-1 AND PSTC-LA UNION AWARD GLASS CRUSHING MACHINE TO LGU SAN GABRIEL *by: John Benedict C. Marasigan*



The Department of Science and Technology Regional Office 1 (DOST-1), through the Provincial Science and Technology Center – La Union awarded a glass crushing machine to the Local Government Unit of San Gabriel, La Union last January 24, 2020 at the Municipal Hall of San Gabriel in support of the comprehensive waste management program of the municipality.

Witnessing the turn-over ceremony is San Gabriel Vice Mayor Hon. Divina D. Velasco, Municipal Engr. Samuel Dicang, PSTC La Union Science Research Specialist II Engr. Edison M. Acosta and Project Assistant I Mr. John Benedict C. Marasigan.

Mr. Jun Macaraeg of the Filipino Inventors Society Producers Cooperative and Mr. Marcos M. Aquino of Bestmark Agro-Industrial Enterprises, fabricator of the said equipment also graced the said event. Mr. Macaraeg and Mr. Aquino led the trial operation during the turn-over ceremony.

Hon. Velasco expressed the municipality's heartfelt gratitude and appreciation to DOST-1 during the turn-over ceremony. The said equipment was requested by the Municipal Science and Technology Coordinating Council (MSTCC) of San Gabriel, La Union for the municipality's comprehensive solid waste management program.



Trial operation of the equipment

BURGOS PANTAWID PARENT LEADERS LEARN LOAF BREAD MAKING *by: Heisaboy T. Tubaang*



The training participants together with Burgos, La Union Municipal Mayor Hon. Robert B. Madarang Jr. (3rd from left, 1st row), LGU personnel, and DOST and DSWD staff during the closing program of the training on loaf bread making.

The Department of Science and Technology Region I (DOST-I) through the Provincial Science and Technology Center La Union (PSTC-LU) extended a skills training on Loaf Bread Making for the members of Burgos Pantawid Parent Leaders Association last February 6, 2020, at Burgos Pantawid Bakery, Burgos, La Union.

The training, aimed to enhance the skills of the bakers of Burgos Pantawid Bakery, which focused on making loaf bread as another variant of bakery product, was participated by 11 parent leaders and 3 LGU Burgos staff. It was also conducted to maximize the utilization of their baking equipment – bread slicer & spiral mixer – provided by the DOST.

Mr. Juanito Lacbayan and Mr. Ronald Quinacman were tapped as the trainers of the said training. They were the lead baker, and assistant baker respectively of the Adong Pan De Monay Bakery in San Fernando City, La Union, a DOST-assisted firm under the Small Enterprise Technology Upgrading Program (SETUP).

The participants also reviewed their previous trainings on good manufacturing practices with food safety measures.

The training on loaf bread making is a continuing support of DOST to the association, after being a beneficiary of various bakery equipment under the community-based project in CY 2018. Prior to this training, they were also trained on baking, simple bookkeeping, product costing and current good manufacturing practices.

The training ended with a simple program attended by the Municipal Mayor, Hon. Robert B. Madarang Jr. together with the LGU, DSWD and DOST staff. In his message, Mayor Madarang Jr. extended his warm congratulations to the participants and challenged the group to produce local quality bakery products wherein people in Burgos will no longer buy bread from other neighboring cities and municipalities. He also extended his gratitude to the DOST for the unwavering support towards the development of communities in their municipality. Mr. Francisco Aberin, Municipal Planning and Development Coordinator of

LGU Burgos, also reminded the group in managing their finances well, particularly in keeping financial records and cost calculation.

In behalf of the DOST, Ms. Princess P. Abuan, Project Assistant II, emphasized the importance and impact of having the bakery equipment (bread slicer & spiral mixer) to ease their processing compared before. Ms. Abuan also extended her appreciation to all the stakeholders and signified the strong commitment of the agency for future projects in the municipality.



Burgos Parent Leaders at work

DOST-1 RAISES CGMP AWARENESS ON MEMBERS OF SAMAHANG PANGKABUHAHAN NG SASABA AT SAPDAAN ASSOCIATION (SPSSA) *by: John Benedict C. Marasigan*



The members of the association together with Mr. Decth1180 P. Libunao of DOST-1 RSTL and Mr. Heisaboy T. Tubaang of PSTC-La Union

To equip the members of Samahang Pangkabuhayan ng Sasaba at Sapdaan Association (SPSSA) with awareness on the current Good Manufacturing Practices (cGMP) for food industry, the Department of Science and Technology Regional Office No. 1 (DOST-1) through the La Union Science and Technology Center and in cooperation with the Local Government Unit of Santol, La Union, conducted the “Seminar on Current Good Manufacturing Practices” last January 30, 2019, at Brgy. Sasaba, Santol, La Union. The seminar was participated by 17 members of the association.

Mr. Decth1180 P. Libunao, a registered microbiologist and a Science Research Specialist II of DOST-1, served as the resource speaker for the said event. He talked about the importance and benefits of cGMP implementation in the food business. He also emphasized the importance of food safety as well as the significance of maintaining cleanliness in the production of goods to avoid possible contamination. To show a more visual example of the topic, he played some video clips about news on food poisoning caused by improper handling and processing of food. He also discussed the proper premises along with the plant construction and design which is needed to comply with the standards of the Food and Drug Administration. Lastly, he discussed equipment sanitation and hygiene, supervision, sanitary facilities, maintenance and sanitation, and process control.

Ms. Anastasia Balada, a member of the SPSSA, expressed the association’s heartfelt gratitude and appreciation to DOST-1 during the closing activity. The association was a beneficiary of the Community-Base program of DOST-1. The activity is part of the science and technology intervention for the project: “Process and Product Improvement of Ground Coffee of Samahang Pangkabuhayan ng Sasaba at Sapdaan Association”.



DOST-1 CONDUCTS FOOD SAFETY ASSESSMENT TO 5 FIRMS IN LA UNION

By: Princess P. Abuan



Developing the capacities of Tessie Mushroom House Food Products (leftmost photo), Jobi's Mushroom Products (center photo), and Lomboy Farms to effectively manage food safety and quality of their products.

Handling, preparation, and storage in the food industry shall be dealt with utmost care and caution as food safety issues pose high and significant risks not just in one's business but in the clients' well-being most especially. Thus, food safety should be taken seriously to avoid repercussions, such as brand damage and health risk.

To address this, the Department of Science and Technology Region 1 (DOST-1) through the La Union Science and Technology Center conducted a 2-day food safety assessment to 5 firms last January 23 to 24, 2020. The goal of the evaluation is to reduce recalls and enforcement of food safety systems in the production plant.

The Region I Inter-agency Food Safety Team (R1IFST) organized by DOST I assesses the sanitary conditions and practices by these food firms if conforming to Good Manufacturing Practices (GMP), Basic Food Hygiene, and Food Safety Requirements.

The assessors were Mr. Decth1180 P. Libunao of DOST-I RSTL, PD Racquel M. Espirit, and Ms. Princess P. Abuan of PSTC La Union. They inspected the processing areas of Tessie Mushroom House Food Products (Mushroom Chips) in Brgy. Saytan, Pugo; Jobi's Mushroom Products in Brgy. San Joaquin Sur, Agoo; Lomboy Farms (Wines) in Brgy. Urayong, Bauang; Sudipen Women Indigenous People's Organization (Rice Wine) in Brgy. Poblacion, Sudipen; and

Chaddie's Food Products (Mushroom Chips) in Brgy. Reyna Regente, Bangar.

Findings on the food safety compliances of the premises, plant construction, equipment, sanitation, process control, quality control, documentation, storage, and product recall would be addressed to guide the food firms to follow GMP requirement and for continuous improvement.

Food can become contaminated at any point in the production process up to its distribution such that the primary cause of contamination lies with the food improperly prepared and mishandled at home, in food service, establishments or markets. Not all food handlers and consumers understand the roles they must play such as adopting basic hygiene practices when buying, selling and preparing food to protect their health and that of the wider community. These challenges put greater responsibility on food producers and handlers to ensure food safety.

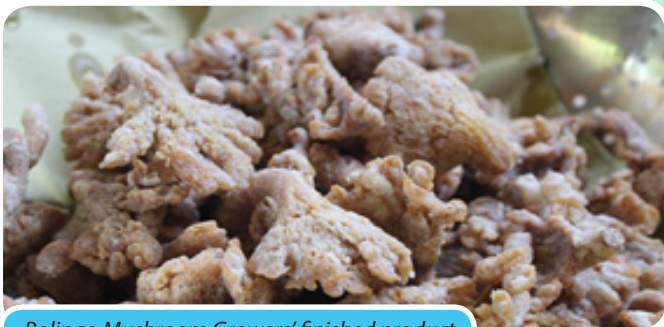
Selected members of the R1IFST from the National Government Agencies and academe work closely to ensure food safety along the entire food chain from production to consumption.



BOLINAO MUSHROOM GROWERS, GAIN SKILLS IN OYSTER MUSHROOM PROCESSING *by: Bernalyn Martinez*



Bolinao mushroom growers undergo mushroom value-adding processes training



Bolinao Mushroom Growers' finished product

Mushroom growers in Bolinao, Pangasinan gained new skills in mushroom value-adding processes last March 2, 2020, at Mamoo's Mushroom Farm in Brgy. Sampaloc. The training was conducted by the Department of Science and Technology (DOST) Region 1 through its Provincial Science and Technology Center in Pangasinan.

Ms. Jennifer Dauz and Mr. Rex Richardson Dauz taught the participants the processes in making mushroom tocino, tapa, and pickled mushroom. The trainers also enhanced the firm's processes in making mushroom chicharon which addressed their problems in the bitterness and crispiness of their mushroom chicharon product.

The said training was conducted to address the problem of oversupply of fresh oyster mushroom harvested from the farm as well as provide additional income through value-adding.

The training was made possible through the request of Mr. Jomer Tabucol, owner of the Mamoo's Mushroom Farm. Interested firms or associations who need technical trainings may inquire to the nearest DOST Provincial Offices for further assistance.

PSTC-PANGASINAN INTRODUCES SQUASH NOODLES AND CHIPS PROCESSING TO ALAMINOS CITY FARMERS *by: Bernalyn Martinez*



Alaminos City Squash Farmers with Ms. Meryl A. Bernardino, a Food Technologist and Entrepreneur and DOST Staff in a training on Squash Value-Adding Processes

Alaminos City Squash Farmers learned new skills in producing squash noodles and chips during the Training on Squash Value-Adding Processes at MVC Techno-Demo Farm in Brgy. Tacarang last February 14, 2020.

The training was made possible through the Department of Science and Technology Regional Office No. 1 (DOST I) Pangasinan Science and Technology Center in cooperation with the City Government of Alaminos City.

Thirty-six farmers from six (6) different Farmer's Associations participated in the said training. The training was conducted to lessen wastage of squash oversupply during peak season. During the opening program, Alaminos City Councilor Hon. Michelle Sison-Segundera pointed out that the training is a promotion for good nutrition. She also added that this opportunity is a great help in the launching of livelihood programs in the city and the production of squash products as one of their major products.

Ms. Alexander A. Apostol, Science Research Specialist II of DOST-I encouraged the participants to apply and develop the skills they will learn, because this may lead them to have an opportunity to adopt the DOST- Food and Nutrition Research Institute (DOST-FNRI) squash technologies.

During the training proper, Ms. Meryl A. Bernardino, a Food Technologist and Entrepreneur, taught the participants the Basic Food Safety practices for food handlers. She also taught them the proper wearing of Personal Protective Equipment (PPEs) like hairnet and food gloves, and proper handwashing. After that, she introduced the steps in making squash noodles and chips. Each participant had a hands-on training to enhance their skills in squash processing. Ms. Bernardino also told the participants that she will be delighted if, after the training, she will hear that Alaminos City farmers are now producing squash value-adding products.

To formally conclude the program, the participants presented their own squash products made during the training.

TWO LGUs IN PANGASINAN READY FOR THEIR WACS PLAN *by: Alexander A. Apostol*

To determine the total amount and components of waste generated daily by the Local Government Unit (LGU) as well as to comply with Republic Act No. 9003 or the "Ecological Solid Waste Management Act of 2003" which provides for an ecological solid waste management program that will ensure proper segregation, collection, transport, storage, treatment, and disposal of solid wastes, the Department of Science and Technology Regional Office No. 1 (DOST-1) Provincial S&T Center in Pangasinan (DOST-Pangasinan) through the Industrial Technology Development Institute (ITDI) has conducted a 2-day Training on Waste Analysis and Characterization Study (WACS) to LGUs of Anda and Mabini last March 4-5, 2020 at Anda Training Center in Anda, Pangasinan.

The training provided the participants with the necessary knowledge and legalities on conducting WACS, which is the process of gathering information on the quantity and composition of solid wastes generated from various sources in a specific area or jurisdiction. Dr. Myra Tansengco, Supervising Science Research Specialist, led the training team from ITDI.



Staff involved in solid waste management, planning and development office and MRF with experts from DOST-ITDI and DOST PSTC Pangasinan



Together with Engr. Joven Barcelo, Ms. Namnama Ganotisi, and Mr. Leonilo Daan, the training was conducted in the form of lecture-discussion, workshop, and actual dry-run on coning and quartering, bulk density determination, waste sorting, weighing and recording.

In addition, participants from the LGUs composed of personnel involved in Solid Waste Management, Planning and Development Officers and the Material Recovery Facility (MRF) Administrator learned how to prepare a WACS Plan and develop worksheet files for WACS samples which is needed in their ten (10) year solid waste management plan.

After presenting their draft WACS Plan, Dr. Tancengco presented various ITDI-developed technologies on biodegradable wastes and plastic wastes that could help the LGUs in improving their solid waste management plans and means of additional income.

The generated result from conducting WACS during the training can be used by the LGUs to formulate strategies, programs, projects and activities that would address the issues and concerns of the locality in terms of solid waste management.



(L-R) Dr. Myra Tansengco, Engr. Joven Barcelo, and Ms. Namnama Ganotisi delivers their lecture-discussions and workshops

DOST-ITDI LAUNCHES I-SALT PROCESSING TECHNOLOGY IN DASOL, PANGASINAN

by: Adrienne Margaux Q. Dolores

To revive the vibrant industry of salt-making in the Philippines as well as comply with the standards of Republic Act No. 8172 otherwise known as “An Act for Salt Iodization Nationwide” (ASIN) Law, the Department of Science and Technology through the Industrial Technology Development Institute (DOST-ITDI) and Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD) has awarded Gozon Development Corporation (GDC) with an improved salt-processing technology last February 5, 2020, at Dasol, Pangasinan.

Present during the launch and turnover ceremony are DOST Undersecretary for Regional Operations Ms. Brenda L. Nazareth-Manzano, DOST-ITDI Director Dr. Annabelle V. Briones with her staff, DOST Region 1 Director Dr. Armando Q. Ganal, Provincial Science and Technology Director of Pangasinan Ms. Felicidad M. Gan, Gozon Development Corporation representative Mr. Edmin G. Tarriela, Local Government Unit of Dasol Municipal Administrator Mr. Miguelito R. Nono, and Municipal Agricultural Officer Ms. Ma. Frieda Briz, together with other local salt producers of Dasol.

The salt-processing technology involves three machines namely the salt washer, spin dryer, and salt iodizer. A demo was conducted by the DOST-ITDI staff along with the employees of GDC.

The salt washer is designed to increase salt purity to at least 97% as required by the ASIN Law. It uses saturated brine as a washing medium which is also filtered and recycled for reuse.

The spin dryer reduces the moisture content of salt to less than 8% as mandated by ASIN Law and can process up to 75 kg per batch. This machine can also allow salt processing even in humid or rainy conditions which is not possible with traditional dripping or sun drying.

To complete the process, the salt will then be placed in the salt iodizer, a portable screw-type machine which will uniformly infuse iodine in the salt being processed. The iodine content of the salt is checked/tested using the WYD Iodine Checker. The iodine introduced to the salt ranges from 30 to 70 ppm as required by the Food and Drug Administration.

The awarding of machine is not the first in the province as JM Salt Manufacturer from Infanta, Pangasinan was also awarded with 4 equipment for Cooked Salt Technology namely: furnace and evaporating pan, spin dryer, salt iodizer and WYD Iodine Checker back in 2018. To improve the system, Grace Monterola, owner of JM Salt Manufacturer, has innovated the Furnace and Evaporating Pan awarded to her to make the salt



DOST key officials and LGU Dasol awarding the ITDI-Developed Salt-Processing Equipment to Gozon Development Corporation

cooking process more efficient and productive.

As Pangasinan is one of the biggest producers of salt in the country, salt producers are enjoined to improve and innovate their production under the support of DOST, DOST-ITDI, and DOST-PCIEERD. It is DOST's hope that through the i-Salt project, we will be able not just to comply with the mandates of ASIN Law but also to produce quality salt and revive the once flourishing salt industry in the country and more importantly, reduce our dependence to imported salt.



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