



PSRTC is now in year 9 of a 10 year program launched and supported by SPSI. The mission of PSRTC of Empowering Mountain Communities has had a major impact already in Negros as well as Guimaras and remains so RELEVANT! What I didn't expect to become so clear was the attraction and relevance of our program had on other academic and government institutions, wanting to partner with us on this mission.

That lead us to the bold decision to establish a "National Training Center" at PSRTC permitting us to share our learnings with many senior agricultural students as well as farmers and other, who directly promote improved sustainable agricultural technologies. I was privileged to participate in the grand opening of the Center in March with many of our partners participating. The overwhelming support and interest in the work PSRTC and its partners are doing is changing how agriculture is becoming more sustainable as well as adding value to all steps in the process for crops like sweet potatoes, corn and potatoes.

The second major focus is a shift from overall program support to moving to a business plan project model starting now and becoming fully functional after year 10 of the present program. University faculty in Guimaras and Negros are assisting project proponents in developing good relevant project business plans that SPSI will support. Focus is on young entrepreneurs who wish to modernize agriculture and make it financially sound for a lifelong business in agriculture career. Exciting times await those who will venture into such business opportunities.



PSRTC's Board of Trustees and Members: From left to right. Regie Demonte Verde, Dr. Luciano Magallanes, Dr. Dao Huy Chien, Dr. Peter VanderZaag, Dr. Victoria Demonte Verde, Josie Trunio, and Teresita Masangcay.



"All in all, I am amazed at the interest and support that our mission has garnered as we move forward with exciting possibilities before us. I am pleased to partner with not only the great team at PSRTC as well as the many new partners working alongside us!"

Peter VanderZaag, Executive Director, Sunrise Potato Systems Institute (SPSI).

Launching of National Training Center and Partner's Forum on DOST's CEST Program

On March 8, 2024 government and non-government organizations, academe, and farmers gathered together for the **Launching of the National Training Center (NTC) and Partner's Forum for DOST's Community Empowerment Through Science and Technology for Sustainable Crop Production and Improvement of Soil Health with Focus on Potato Production**. NTC will provide more training opportunities for students, farmers, and other sectors of the society. The partner's forum aims to crystallize the different aspects of collaboration among partner organizations.

Initially, **Dr. Victoria Demonteverde** gave her welcome remarks. **Dr. Peter VanderZaag**, President of the World Potato Congress expound on the Milestones and Vision of NTC. **Hon. Jose Chubasco B. Cardenas**, Mayor, Canlaon City; **Dr. Gracia F. Arado**, Training Center Superintendent, Agricultural Training Center Region VI; and **Fletcher B. Gumahad** Provincial Director, Technical Education and Skills Development Authority expressed their Statement of Support. **Dr. Arado was represented by Joemelyn Sumagang**.



Partner Organizations of PSRTC and DOST's CEST Program



The Partner's Forum was led by Atty. Gilbert Arbon, Provincial Director of the Department of Science and Technology Region VII-Negros Oriental. Then different partner organization expressed their possible contributions for DOST's CEST Program. All organizations expressed their commitment to the program and the possible interventions they can provide.

The seminar on the 9th promoted awareness and encouragement for farmers and students in using recent technology on the production and processing of potato and sweet potato. Likewise, for the utilization of corn and other crops as rotational crops for conservation agriculture.

C



Seeds from Bureau of Plant Industry, La Granja, La Carlota City

E



Shredder from DOST

S



Food processing facility

T



Mulching sweet potato

The CEST program in Perspective

The Community Empowerment thru Science and Technology (CEST) for Sustainable Crop Production and Improvement of Soil Health with focus on Potato Production, Processing, and Marketing Program is being implemented by PSRTC together with partner organizations with the support of the Department of Science and Technology Region 7-Dumaguete City. This project aims to address the various challenges in potato and sweet potato production. The focus is on production of planting materials of potato and sweet potato, conservation agriculture, value adding activities for potato and sweet potato, pilot of sweet potato flour technology and assistance in the marketing of products. Trainings are also being conducted.

Awareness campaign on Conservation Agriculture was done with a total of 84 farmers.

A total of 2,175 kgs seeds of corn, mungbean, and soybeans were distributed to the farmers. The seeds were from the Bureau of Plant Industry, in La Granja La Carlota thru its Center Chief Doris Discaya. A seminar was conducted prior to seed distribution.

Small trials on intercropping with corn were conducted by students from NORSU-Guihulngan. Seminars and awareness campaign were also conducted. Potato harvest were participated by NORSU students in Cabagtas, Brgy Codcod, San Carlos City. Awareness campaign was done at Compound to encourage farmers to again plant potato.

DOST provided greenhouse, shredder, trays and other logistic support to be able to multiply pathogen tested potato and sweet potato varieties demanded by farmers.



Greenhouse from DOST



Seminar with Department of Trade and Industry and Department of Agrarian Reform

Nutritious and Yummy Sweet Potato Products topped with the Sweetness of Collaboration

Sweet potatoes boast a multitude of health benefits, including being rich in essential nutrients like vitamins A and C, potassium, and fiber. Their high antioxidant content, including beta-carotene and anthocyanins, contributes to reducing inflammation and combating oxidative stress in the body. Despite their natural sweetness, sweet)blood sugar levels and supporting overall metabolic health.

In a ground breaking collaboration, the Technological University of the Philippines - Visayas (TUP-V) introduced its innovative sweet potato flour technology, marking a significant stride in agricultural innovation. Through this partnership, TUP-V aims to revolutionize the processing of sweet potatoes into high-value products from small size non-marketable sweet potato roots.

Product development from sweet potato flour were initiated through training conducted by the City Social Welfare and Development (CSWD) on making carrot cupcake production and pastillas de mani (peanut). Likewise, the On-the-Job trainees (OJT's) successfully created various sweet potato based products such as cookies, pancakes, pastillas de mani, brownies, doughnuts, hopia, and more. The products crafted by the OJT's were marketed by them to locals, nearby households, and schools.



Products developed within PSRTC were introduced to various age groups such as in daycare center wherein parents were taught how to cook puto cheese and these were given as snacks to children. Ten senior high students from Pula National High School were taught how to make sweet potato pancake and puto. While 150 youth from Canlaon Bible Community Church were taught how to prepare sweet potato pastillas de mani and puto.

Product Formulation and Development of Sweet Potato Gelato was conducted by the Department of Trade and Industry (DTI) with the Department of Agrarian Reform (DAR). Efforts were also being done towards licensing for commercial production wherein PSRTC Staff attended related seminars such as documentation-write shop for FDA LTO Application Requirements and Procedures (Aug. 31-Sept 1,2023); Seminar on Good Manufacturing Practices (May 3,2024) and, Seminar on General Standard for Food Hygiene.

PSRTC is so blest to be able to do potato value adding through DOST's CEST Program and in partnership with the TUP-V, DTI, DAR, CSWD, Canlaon Bible Community Church (CBCC-Lampara), and Pula National High School.



Enhancing Knowledge and Skills: On-The-Job Training of University Students

Senior Students of Negros Oriental State University (NORSU)-Guihulngan City Campus and Central Philippines State University (CPSU) - San Carlos students had gained invaluable experience through their On-The-Job Training (OJT) at PSRTC and Canlaon Potatoes and Flowers Co. (CP&F). This partnership between academia and industry had provided 40 students with hands-on opportunities to apply their theoretical knowledge in practical on farm settings.



Aside from food processing, the OJTs were immersed in various aspects of the agricultural industry, including tissue culture, greenhouse propagation, cultivation techniques, pest management, harvesting practices, and marketing strategies. They also gained experience in extension related activities, with students (day-care and youth) and farmers.

Hence, they not only learned new skills but also gained insights into the intertwining relationships in agricultural communities.

Students also developed crucial soft skills such as teamwork, communication, problem-solving, and adaptability. They learned to collaborate effectively with colleagues, communicate ideas clearly, tackle challenges head-on, and adjust to the dynamic nature of the agricultural sector.

By working with machineries and innovative techniques, they are staying abreast of the latest developments in agriculture and positioning themselves as competent professionals in their field.

Beyond skill development, the OJT program fosters a deeper understanding of the socio-economic and environmental aspects of agriculture.



Students gained firsthand knowledge of the challenges faced by farmers and the importance of sustainable practices in ensuring long-term viability.

Overall, the OJT experience had empowered students from both universities to become well-rounded professionals equipped with both the technical expertise and the practical experience needed to excel in the agricultural industry. Mabuhay to our future Agriculturist and Agroentrepreneurs!

A Glimpse into the Potato Harvest: On-The-Job Trainees Experience in Cabagtasan

In the heart of the chilly highlands of Sitio Cabagtasan, Brgy. Codcod, San Carlos City, which favor potato production, lies a unique opportunity for trainees from NORSU-Guihulngan City Campus. Here, students embark on a journey of agricultural discovery, immersing themselves in the age-old tradition of harvesting potatoes.

As the trainees delve into their tasks, they are struck by the meticulous care and attention to detail that define every aspect of potato cultivation in this rural area. From selecting the finest seed potatoes to meticulously tending to the crops as they flourish in the cool mountain air, the farmers' expertise shines through, inspiring the trainees to approach their work with equal dedication and precision.

The experience fosters a profound sense of connection to the local community and its rich agricultural heritage. As they toil alongside the farmers, the trainees gain not only practical skills but also a newfound appreciation for the resilience, resourcefulness, and camaraderie that define rural life in Sitio Cabagtasan.

In the end, as the harvest draws to a close, not only with bags full of produce but also with hearts full of gratitude and minds enriched by the timeless wisdom of the land. For in this remote corner of Negros Occidental, they unearthed not just potatoes but a wealth of knowledge that will shape their journey as stewards of the earth for years to come.



Implementation of Agroentrepreneurship NCII Qualification

The Technical Education and Skills Development Authority (TESDA) has accredited Canlaon Potatoes and Flowers - Integrated Diversified Farm as one of its Technical Vocational Institutions. In April to June 2023, it implemented Agroentrepreneurship NCII with 25 learners from Barangay Pula, Canlaon City,

The Agroentrepreneurship curriculum consist of basic, common, and core competencies that a person must achieve to be able to assess market opportunities, establish farm production plan, handle finances, and market produce.

The 2nd batch of learners were from Barangay Masulog, Canlaon City. Classes were held on February till May 2024 . All 24 students who took the "Assessment" passed. The 3rd batch of Learners from Sitio Kalubihan, Barangay Linothangan.

TESDA classes are being held even in remote places to also reach out to under privileged communities. Scholarship with daily allowance are provided to learners of varying ages and background for them to access additional knowledge and skills, equipping them better for the workplace. This indeed is the application of their slogan "Sa TESDA, Lingap ay Maasahan".



Training Induction Program with PD Fletcher Gumahad, TESDA Provincial Director, Ms. Emelia Demafilis, PESO Manager/CTEC of Canlaon City, and Victoria Demonte Verde



TESDA Convention



National TECH-VOC Day



Linothangan graduates



Pula graduates



Masulog graduates

Participation on 2nd International Conference on Home School Plus Gardens cum Biodiversity Enhancement and Enterprise (SHGBEE2)

This International conference served as a platform for sharing experiences and research initiatives that could contribute to biodiversity enhancement and enterprise development. It also aims to discuss different lessons, impact stories, strategies, and challenges related to nurturing healthy, diverse, and entrepreneurial communities. SHGBEE2 held on November 14-17, 2023 at Kabankalan City, Negros Occidental was convened by Central Philippines University in coordination with Southeast Asian Regional Center for Graduate Study and Research in Agriculture and Kansas State University.



Victoria and Vickie Joy Demonteverde participated in this event. Victoria shared the research on Improving Soil Health and Biodiversity thru Conservation Agriculture: A CP&F Experience. This is an experience on how Conservation Agriculture improved poor soils in the CP&F farm. In 2013, the soils were almost dead with no earthworm found in holes dug around the farm. Corn in rotation with other crops were planted. No Till, Minimum Tillage, Strip Till were done. Observations taken on March 2024 showed that soil texture and organic matter improved and earthworm population had increased in farm lots wherein intervention were done. CP&F experience will be shared to other farmers for validation thru the DOST's CEST Program.

Participation in 2024 Technology Convention



Display of products from Sweet Potato Flour. From Left to Right: Victoria Demonteverde, Prof. Faith Palay, Jeann Redoble, Dr. Darlyn B. Posas, Dr. Francis Galon and Prof. Alan Faburada. At the back is Dr. Peter VanderZaag

The 2024 Technology Convention dubbed "Sustainable Innovations through Emerging Technologies in Agriculture, Aquaculture, and Natural Resources (AANR)" was held on March 6, 2024, at the Technological University of the Philippines Visayas, Talisay City, Negros Occidental. The event was strategically designed to boost collaboration and innovation within the realms of Agriculture, Aquaculture, Natural Resources (AANR), and Artificial Intelligence (AI).

Dr. Peter VanderZaag, President of World Potato Congress and Executive Director of Sunrise Potato Systems Institute was one of the Keynote speakers during the Plenary Session for Agriculture. He spoke about recent trends and development in Agriculture in several countries.

Victoria Demonteverde participated in the Reverse Pitching: Industry

Partner's Presentations where she shared valuable insights and other needs for the sweet potato flour technology to flourish.

Sweet potato based products and other agricultural products from Canlaon City were displayed in PSRTC booth.

The processed products were made by DOST's CEST Project Study Leader, Beverly Olacio and OJT students from NORSU-Guihulngan and CPSU-San Carlos City. The event was meaningful for staff and students as they were able to present their products to media outlet and other visitors.



TUP University President Engr. Reynaldo P Ramos, Ph.D., EnP and Dr. Eric Malooy, Campus Director of TUP-V with the Plenary Speakers

Guimaras Livelihood Empowerment for Farmers and Fisherfolks Association (GLEFFA), formerly Guimaras Livelihood Empowerment Program (GLEP) program is a tripartite partnership of PSRTC, Foursquare Gospel Church of Guimaras, and Guimaras State University-Baterna Campus. The goal is to promote livelihood initiatives and opportunities in different farming and fishing communities in Guimaras.

The visit and dialogue with Peter VanderZaag ushered a new Empowerment Model whereby project support were based on agribusiness project proposals. In line with this, GSU conducted a project proposal making workshop. Participants availed of technical advice from GSU. After a week, interested parties, presented their proposed project to a panel composed of Dr. Julius Vergara, GSU Vice President; Dr. Rhea Flora Descalso, Dean; and faculty members specialized in their own fields. The workshops facilitator was Mr. Reynro T. Herrera, the Community Extension Coordinator. Looking forward that this new initiatives will strengthen the existing livelihood projects being implemented by each of the 8 communities and now by individual agribusiness project proponents

Progress in Guimaras Livelihood Empowerment Program

Courtesy visit to Dr. Julius T. Herrera, Vice President for Research, Extension, Training, and Innovation



GLEFFA Members from the Foursquare Gospel Church of Guimaras with Adviser and Consultants



Courtesy Visit of Dr. Peter VanderZaag to Guimaras State University President Dr. Lilian Diana B. Parreño (2nd from left) with Prof. Rhenro T. Herrera (Director, Mango and Tropical Fruits Research Center and Extension Coordinator), Dr. Rhea Joy Descalso Flora (Campus Director/Dean GSU-Baterna Campus) and Dr. Victoria Demonteverde.



The 12th World Potato Congress

The World Potato Congress is the leading networking organization for the potato value chain. This year's congress was held at Adelaide, Australia on June 23-26 with a Theme "Old World Meets New World". Dr. Peter VanderZaag, President of the World Potato Congress expound on the theme as how potato has played a vital role in food security in the ancient world, the Andes of Peru, to the old world (Europe) including the late blight plague that resulted to famine in Ireland and to the new world (Asia and Africa) where it is to one of the most important food crop for this present generation.

The congress was also a good platform to exchange knowledge, breakthroughs, innovations, and state of the art technologies on various facets of potato germplasm conservation, breeding, cultivation, trade, and emerging industries. Its contribution to health, nutrition, and food security were emphasized.



PSRTC along with partners, Sunrise Potato Systems Institute, Department of Science and Technology, Northern Philippine Root Crops Research and Training Center and Canlaon Potatoes and Flowers had a poster presentation on the topic "Community Empowerment for Sustainable Potato Production" which is also a part of the project funded by the Department of Science and Technology - Region VII.

The Congress culminated with a Gala Dinner and attended by more 1000 participants from over 40 countries. The highlight of the event was conferring the Industry Award that recognized exemplary contribution of person/s. One of the awardees was Mr. Nelio Compelio, a farmer from La Trinidad, Benguet received the "Industry Award" for his significant contribution to the Philippine Seed Potato Industry by pioneering the utilization of Apical Rooted Cuttings (ARC) to rapidly multiply the variety "Igorota", that his fellow farmers urgently wanted because of its Late Blight and PVY resistance and other desirable agronomic characteristics. At present, Nelio and his son Alvin, produce clean potato seed tubers for other farmers.

Practicum Students from Foundation University



Food processing



Foundation University, a private educational institution from Dumaguete City, offers Bachelor of Science in Agriculture course. One of requirements for this course is for First Year students to undergo Practicum (AGR 150) training to develop their various managerial and manipulative skills. The experience can contribute to their development into competent Agriculturist in the future.



Practicum Students from Foundation University

Field



Greenhouse



With mentors



There was a total of 31 students which came in 2 batches of 16 and 15 per batch who stayed for 2 weeks each. Students did hands-on activities in the field, greenhouse and food processing facility.



Meet PSRTC's New Member

Dr. Dao Huy Chien



Dr. Dao Huy Chien, is a Potato Breeder based at Genetics and Crop Improvement, International Potato Center (CIP), Vietnam Office in Hanoi, Vietnam. Dr. Chien had made significant worldwide contributions to the Potato Industry. One outstanding clone developed by Dr. Chien was the clone LBR-05 which is registered in the Philippines as the variety "Igorota" or the variety "PO3" in Vietnam. This variety is widely grown in various countries due to its excellent processing and eating quality, desirable agronomic characteristics, and resistance to late blight "Phytophthora infestans". Another variety "Cooperation 88" is widely grown in China. The 2 varieties are being used as parental materials in many breeding works. Dr. Chien's membership to PSRTC will surely add to technical expertise that could help promote PSRTC's vision of Empowering Communities.

For further details on PSRTC membership, you may contact us at potatosystemsrtc@gmail.com or mobile number +639668661031. Please refer to www.sunrisepsi.com for PSRTC's program.

BE RELEVANT

Relevance is simply having meaning or purpose. How can PSRTC be relevant to the agricultural and other sectors it seek to serve? PSRTC should better understand the changing needs of the community and tailor its services accordingly. It has to continually ask “What are we doing? Are we doing meaningful impact on the lives of others? Hence, self evaluation and continuous improvement must be a way of life and its key components for success.

“Wisdom may be perennial but to see its relevance, we must see it lived out”

- Eknath Easwaran

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