



ATI-RTC-CAR Training and Extension

# WEAVERS

The official publication of the Agricultural Training Institute - Regional Training Center-Cordillera Administrative Region

ISSN 2599-493X

January - June 2024



## Center Celebrates the 37th ATI's Anniversary through a Community Outreach Program

The Agricultural Training Institute (ATI) traces its origins to Executive Order No. 116, signed by President Corazon C. Aquino on January 30, 1987. As ATI commemorates its 37th Anniversary, the institute has chosen the theme

"Innovate, Collaborate, Succeed" as a guiding principle for the activities and initiatives planned for this significant milestone.

This theme concisely captures the essence of ATI's journey over the past nearly four decades. It reflects the

institute's commitment to innovation, exploring and implementing new technologies, methodologies, and approaches to enhance productivity, sustainability, and resilience within the agricultural sector. Collaboration stands as a cornerstone of ATI's

*(continued on page 3)*

# CONTENTS

January - June 2024

1st semester of 2024



3

Center Celebrates the 37th ATI's Anniversary through a Community Outreach Program

6

Empowering Future Trainers in Rice Farming and Mechanization

8

ATI Cordillera trains AEWs on QGIS

17

Benguet Hosts to the 9th Regional 4H Youth Camp

19

ATI-RTC-CAR concludes its Enhancing Extension Delivery Training Program

23

The Scion and the Tree: Albert's Farm Citrus Technology Inspiration, Adoption, and Discovery

## Editorial Board

**Editor-in-Chief:** Maximino R. Aromin, Jr. **Contributing Writers:** Adrian Chris P. Velasco, Jaila S. Sagpa-ey, Bongbong L. Buli-e, Jaypee D. Na-oy, Esjay M. Zausa, Jomar T. Guerzon, Tiffanie Grace C. Beñgeg, Aldrin Sagao, Vicky May Guinayen, Ezra James Felix, Nikao Ramos, Dr. Christine Esnara, Maribeth M. Ladu-an, Lorna W. Sawac, Pearl Epie **Layout:** Karen Tagkitag **Photo Credits:** All Project Implementers  
**Adviser:** CHARLIE C. SAGUDAN, TCD

**WEAVERS** is the official semestral publication of the Department of Agriculture-Agricultural Training Institute-Regional Training Center-Cordillera Administrative Region (ATI-RTC-CAR).

This publication contains articles on the latest news relating to or about the training activities, technologies, updates, and success stories of the Institute and its clients.

**WEAVERS** welcomes comments and suggestions from readers.

For inquiries, please contact:

Agricultural Training Institute  
Cordillera Administrative Region  
BSU Compd., La Trinidad, Benguet  
Website: [ati.da.gov.ph/ati-car](http://ati.da.gov.ph/ati-car)  
TeleFax. No.: 074-422-2375;  
email: [ati\\_car@yahoo.com](mailto:ati_car@yahoo.com)

## Center Celebrates the 37th ATI's Anniversary through a Community Outreach Program

mission, recognizing the interconnectedness of agricultural systems and actively seeking partnerships with diverse entities, including government agencies, non governmental organizations, academic institutions, and private sector entities.

As ATI looks back on its achievements, it eagerly looks forward to the future, guided by the principles of innovation, collaboration, and a shared commitment to success. This anniversary celebration serves as a moment to reflect on the institute's contributions to the

agricultural landscape and to renew its dedication to fostering positive change in the years ahead.

This year, in response to the recent challenges faced by farmers in the rural community of Atok, Benguet, including issues such as low vegetable prices, frost, and forest fires, ATI-RTC-CAR extended its support to the affected farmers. Atok, known as one of the leading vegetable-producing municipalities in the province, has been significantly impacted by these challenges, affecting the local economy and community's well-being.

Recognizing the urgency of the situation and the importance of collective action, ATI-RTC-CAR views this initiative as an opportunity to stand in solidarity with the affected farmers and provide support to help them overcome these obstacles. This Center initiative is rooted in gratitude towards stakeholders, an acknowledgment of the municipality's significance in the regional agricultural landscape, and a commitment to fostering rural development.

In collaboration with partners  
*(continued on page 12)*

## 1st CUAMF Summit a Success



The Regional Training Center of the Agricultural Training Institute in the Cordillera through the Partnership and Accreditation Service (PAS) initiated the first Community Urban Agriculture Model Farm (CUAMF) Summit held on April 30, 2024 at Tabuk City, Kalinga with a total of 87 participants representing various urban and peri-urban agriculture

model farms from Baguio City and adjoining municipalities of the province of Benguet, Mountain Province, and Tabuk City in Kalinga.

The summit aimed to convene stakeholders and foster collaboration in promoting community gardening, presenting a unique opportunity to showcase

*(continued on page 13)*

## ATI-Cordillera Turns Over ICT Facilities for FITS Center of OMag-Bangued, Abra

As part of the enhancement program of the FITS Centers and for its continual operation, the ATI-Cordillera through its Information Services Section (ISS) turned over the ICT equipment to FITS Center in Bangued, Abra last April 15, 2024.

Before the turn over, Ms. Jaila Sagpa-ey, FITS Focal Person, oriented the staff on the updates and guidelines of the program. It was reiterated that: the Techno Gabay Program (TGP) is to enhance the operation of the OMAG especially its FITS Center services. Further, report submission and the presence of a logbook for FITS operation are underscored as part of their responsibilities. The FITS report submission is by semester – that is - expected to be submitted to DA-ATI-RTC-CAR before the end of June and December each year.

*(continued on the next page)*

## ATI Cordillera adds 5 batches of BBO Training this March, 2024

Targeting at least one Barangay Biosecurity Officer (BBO) per barangay, the Regional Training Center of the Agricultural Training Institute in the Cordillera Administrative Region has conducted three more batches of training for BBOs on specimen collection for the month of March 2024 in the provinces of Apayao, Mt. Province and Ifugao.

The first batch was conducted in Ifugao with a total of 20 BBOs trained on March 19, 2024; the second and third batches were conducted simultaneously at

Bontoc, Mt. Province with 31 participants and Calanasan, Apayao with 30 participants on March 21, 2024. Also the fourth and fifth batches were conducted simultaneously at Abra with 21 participants, and Kalinga with 26 participants on March 26, 2024.

The BBOs are volunteer animal health workers based in their respective barangays and are under the supervision of the PVO. Their tasks include assisting the PVO and the Municipal Agriculture Office in monitoring

*(continued on page 14)*

## Launch of FSTP Phase I Marks Milestone in Scientific Training



The first phase of the Farmer-Scientists Training Program (FSTP) was officially launched in a series of ceremonies held across three sites in the Cordillera Administrative Region.

The FSTP Phase I kicked-off on

May 7, 2024 in Asipulo, Ifugao, followed by the launch in Mayoyao, Ifugao on May 8, and in Sta. Marcela, Apayao on May 22. These events marked the beginning of a transformative three-year training approach designed to

*(continued on page 14)*

*FITS..ICT Turn over (from page 3)*

For the ICT support, it was mentioned that once transferred and the Property Transfer Report (PTR) is signed, it will now be the property and responsibility of the LGU. Thus, maintenance of the said equipment is their responsibility.

Staff from the accounting was also briefed about the request for JEV, which she willingly accepted as long as they received a copy of the PTR.

The set of ICT equipment given was: laptop, printer, tablet, LCD projector, and these were tested in the presence of the OMAg staff. Mr. Edward Saldivar, Network Controller and Mr. Adrian Chris Velasco, Information Officer shared with the OMAg-FITS staff the do's and don'ts of operating the ICT support given to them.

The FITS Center is part of the extension modality known as the Techno Gabay Program (TGP) initiated by the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD). In 2012 the TGP was transferred to the Department of Agriculture specifically the Agricultural Training Institute. The TGP aims to enhance the extension services of the municipal and provincial agriculture offices in the country with emphasis on the generation, adoption, and promotion of science-based technologies at the farmers' level.// with reports from Ms. Jaila Sagpa-ey

## ATI-Cordillera trains LSA Cooperators, MSs and RBOs of CAR on Intellectual Property Rights (IPR)

Clear and comprehensive documentation of innovations and unique practices from our LSAs through writing provides a formal record that can be used to establish ownership and protect intellectual property from unauthorized use or infringement. Writing also facilitates effective communication. It enables others to understand the novelty and significance of the innovation, fostering collaboration and investment and ultimately contributing to the commercial success of the innovation.

With this development, the ATI-Cordillera conducted the training entitled "Penning Innovations: Learning the Art of Intellectual Property Rights for Learning Site Cooperators, Magsasaka Siyentista's and RBOs of CAR" held on May 22-24, 2024 at the Dammu-han Hall, ATI-RTC-CAR, BSU Compd., La Trinidad, Benguet.

The main objective of the training is for the participants to submit at least a written draft application of their farm innovations or products developed for IPR registration.

Ms. Jeanne Dugui-es Dangkeo, Intellectual Property Rights Specialist II of DTI-CAR is the lone resource person. She profoundly discussed with the participants the Intellectual Property Rights and System, IPOPHL Incentive Programs and Services.

During the closing program, Ms. Edna Bendadan, RIC Provincial President of Mt. Province expressed her gratitude for joining the training. She said that she has been in the industry of producing processed products for a long time and has no idea of Intellectual Property Rights. With this training, she learned the need to register processed products for intellectual property rights,

primarily to protect businesses and/or products, and to make it simpler to locate businesses, services, or goods offered. She was very happy and grateful for considering her as one of the participants.

Also, Ms. Vivian Grace Mangilinan of Healthy-Harvest Integrated Farm expressed her appreciation to the training. "This training is very crucial to everyone and their businesses to comprehend the legal framework surrounding intellectual property. It aids in protecting inventions, creative works, designs, and many more, thereby fostering innovation and competitiveness. With all the scope of what we had during this training, I realized that as someone who has been exposed to some of the topics such as trademark and copyright, and as a

*(continued on the next page)*



media practitioner, I have stopped working in line with my profession for nearly 5 years, so this training served as a refresher while also teaching me a lot. It is imperative that when we are given this kind of training opportunity, grab it and let us always remember that joining does not require only our presence but also our active participation and eventually apply it to our existing business or whatever sector we have," she concluded.

A total of 30 participants representing various LSAs and FITS Centers in CAR attended the said training.// with reports from Dr. Cristine B. Esnara



## Empowering Future Trainers in Rice Farming and Mechanization



**"I am ready"** claimed the future trainers after 12 days of being exposed to learning and skills development activity.

After being immersed in a dynamic learning experience such as participatory lectures, hands-on demonstrations, and interactive sessions, graduates of the Training

of Trainers on Production of High-Quality Inbred Rice and Seeds and Farm Mechanization are ready to take the challenge- to help the rice farmers in their respective locality through sharing their knowledge and skills gained.

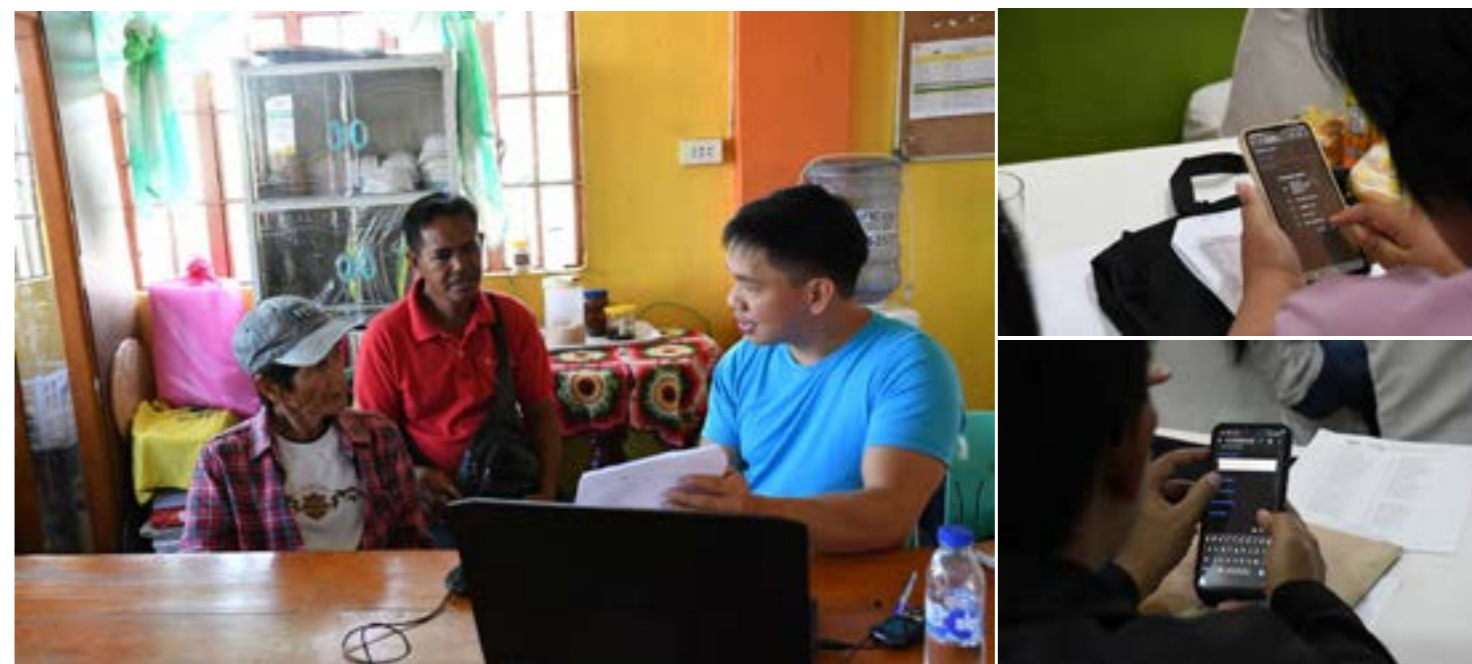
The training was conducted last March 14-27, 2024, with a

participant from the different RCEF-LSA Farm Schools from the provinces of Kalinga and Ifugao. Throughout the training, participants explored a diverse module that would help enhance their understanding and practical skills.

The module included delving into the introduction of rice morphology and growth stages to mastering the operation of farm machinery with precision and safety. The training extended beyond technical proficiency, embracing principles of adult learning and facilitation, transformational leadership, presentation skills, financial management, and the establishment of learning environments conducive to agricultural skill development.

Before the closing program, participants committed to assist their respective farm schools by being a facilitator or trainer, using the fresh learnings they *(continued on page 15)*

## Partners in Agricultural Development Collaboratively Implements the MEL Tool



**A** total of 32 actively engaged themselves to a Training on Use and Operation of the Outcome-based Monitoring, Evaluation, and Learning (MEL) Tool under 4D Farms at Tabuk City, Kalinga from February 26-29, 2024.

During the opening activity, Mr. Bongbong L. Buli-e, the project officer of the training acknowledged that as the world transitions to the 4th Industrial Revolution (4th IR), the Department of Agriculture most modernize the agriculture industry through digitalization. One of the ways to digitalize the sector is with the use of Site-Specific Nutrient Management (SSNM). As a result, the DA, in collaboration with the International Rice Research Institute (IRRI) developed the Rice Crop Manager Advisory Service (RCMAS) which provides a one-page rice crop management advisory tool that encompasses various stages of rice crop production such as crop establishment, fertilizer, pesticide,

irrigation, and weed management practices as well harvest prediction through historical data and crop variety characteristics.

This tool has been proven to be a complementary tool in various programs of the department. It has been used as the basis for the distribution of fertilizer vouchers through the Rice Resiliency Program (RRP) as well as the farm and farm lot registration as the basis for the Registry System

for Basic Sector in Agriculture (RSBSA) to which it provides data on a farm lot size of the farmer. However, data shows that there is low adoption of the RCMAS due to several factors. Hence, the DA and IRRI enhanced the RCMAS to broaden the reach and adoption of RCMAS and monitor the adoption of various programs of the department.

In addition, the project officer said *(continued on the page)*



that the 4DFarms' monitoring, evaluation, and learning (MEL) application serves as a digital tool for DA's Rice Program to monitor and evaluate the effectiveness of the various rice program interventions for farmers.

Mr. Ian Watawat, the Technical Support Staff of the PMEU served as the resource person throughout the training activity. He gave all the details on how the MEL should be undertaken and how to gather the data through an interview with the farmers. With the intensive training and hands-on exercise on the random sampling procedure and familiarization with the MEL application and its use would ensure quality information for analysis and reporting.

During the closing activity, Mr. Louis Andrei H. Luna, Supervising Agriculturist of the Office of the City Agriculture Services of Tabuk City said that the City of the Tabuk is grateful for choosing the City as the venue of the activity. He pointed out that the training is very important since this is about Monitoring and Evaluation of the subsidies provided by the government through the Department of Agriculture. He hoped that the participants gained knowledge about the activity and later apply in their own work and assignments.

The MEL is part of the RCMAS which is an app, it is accessible either online and offline mode. As an output of the training, the participants were able to interview 174 farmers coming from the 10 different sites which are as follows: Barangays Socbot, Mapaco, and Cawagayan of Pinukpuk; Liwan East, Liwan West, and Macutay of Rizal; and Lacnog East, Lacnog West, Agbannawag, and Bulo of Tabuk City. // *Bongbong L. Buli-e*

## ATI Cordillera trains AEWs on QGIS



Supportive to the Philippine Development Plan (2023-2028), where key transformation strategies for the economic and production sector that include modernization, revitalization, and digitalization of agriculture, the Regional Training Center of the Agricultural Training Institute in the Cordillera Administrative Region conducted the Training on the Application and Functionalities of Quantum Geographic Information System (QGIS) in Agriculture for AEWs of CAR held at the Aspulan Hall, ATI-RTC-CAR, BSU Compd., La Trinidad, Benguet with a total of 30 participants.

During the opening activity, Mr. Charlie C. Sagudan, the Training Center Director challenged the participants to complete the training activity since this is a very good input especially so that we are now in the digital world. He cited examples such as in New Zealand, one farmer can identify his herds of 100 cows that can produce

milk and those cows that are to be culled. Precision agriculture involving drone technology is also being used. Digitization is the name of the game. He encouraged the participants to complete the 4.5 day training for them to be equipped with this kind of technology.

The said training activity is in collaboration with the Geoinformatics Department of the Benguet State University headed by Dr. Roscinto Ian C. Lumbres. Mr. Lumbres served as the main Resource Person together with his team composed of 5 faculty members. As the training involved procedural techniques, eight students assisted the team so the participants could easily catch up. This is also to facilitate the smooth transfer of knowledge.

A total of 17 exercises were prepared for the participants to complete, these were: Exploring QGIS and some of its functionalities; Exporting Tabular Data to QGIS and Converting

it as Points; GeoReferencing a Raster Data in QGIS; Digitizing – Converting Raster Data to Vector Data; Joining Tables; Map Projection, Area Determination and Symbology Editing; Map Lay-outing; Creation of Sampling Points; GeoProcessing Tools; Field Calculator and Hyperlink; Spatial Data Collection Using GPS Receiver; Adding GPS data to QGIS; Tracking GPS Receiver; Geo-Tagging Using Android Phone; Working with Digital Elevation Model (DEM); Free GIS Data Source and 3D Modeling; and Working with Satellite Images in QGIS.

Geotagging of the Existing LSAs in their respective municipalities was the action plan of the participants.

A short briefing on the use of the UNEXSYS or Unified Extension



System was also administered. The Unified Extension System Planning, Monitoring, and Evaluation Information System (UnExSys), is designed to aid in the

effective data management of the agency's agri-fishery extension services.

## ATI-RTC-CAR, BAFE, and DOE Host National Training on Microhydro Power Systems

The increasing demand for electricity and fuel, along with the emission of greenhouse gases (GHGs), and the growing concern about climate change are critical issues worldwide. In line with the commitments made in the Paris Agreement on Climate Change, the Philippine government pledged to decrease its GHG emissions by 70% by 2030. As part of this effort, the Department of Agriculture signed a joint Memorandum Circular on February 22, 2021, to strengthen, develop, and promote the integration of Renewable Energy into agri-fisheries sector programs and projects.

One of the renewable energy projects with a significant impact on the agri-fisheries sector is

Micro-hydro Power (MHP) System. MHP is a small-scale renewable energy setup that generates electricity by harnessing the energy of flowing water, typically ranging from 1 kW to 100 kW in capacity. These systems, which utilize the kinetic energy of water streams, usually consist of a turbine, generator, and control unit, providing a sustainable and environmentally friendly source for rural electrification.

In collaboration with the Bureau of Agriculture and Fisheries Engineering (BAFE) and the Department of Energy (DOE), ATI-RTC-CAR conducted a training program on the Design, Installation, Operation, and Maintenance of Micro Hydro Power (MHP) Systems from April

29, 2024, to May 03, 2024, at ATI-RTC-CAR, BSU Compound, La Trinidad, Benguet. The training was attended by 30 Agricultural and Biosystems Engineers (ABEs) from various DA Implementing Agencies, including DA-RAED from the different regions of the country, BSWM, BAFE, and Local Government Units of the Cordillera Administrative Region. The main objective of the training was to enhance the competency of ABEs in designing, operating, and maintaining Micro-Hydro Power (MHP) Systems effectively.

In his message, Engr. Arioder Rico, BAFE Director, highlighted the importance of the training as part of the program of DA and DOE in promoting sustainable power supply to remote areas

and encouraged participants to participate in the advocacy as they learn from the training.

He said, "Let us embrace this opportunity to explore the world of Micro Hydro Power Systems, together, as we strive to enhance our capabilities on sustainable energy solutions. I encourage you all, to approach this training with enthusiasm and an eagerness to learn as you work towards a more environmentally conscious and energy-efficient future."

Meanwhile, Maximino Aromin, OIC-Assistant Center Director of ATI-CAR graced the event to welcome all the participants from the Regional Agriculture Engineering Division of CAR, Regions 1 to 13, as well as from the Bureau of Soil and Water Management and resource speakers from DOE and Sibol ng Agham at Teknolohiya Inc.

During the training, participants visited a Mini Hydro Power System installed at Sitio Asin, Nangalisan, Tuba, Benguet, on the third day. This hands-on activity provided them with an opportunity to evaluate and assess the existing mini hydro system and prepare observations and recommendations to improve the management and operation of the MHP. These findings were presented during the fourth day of the training and critiqued by experts from various fields, namely Ms. Fellicia Eira Reyes (Geologist), Engr. Mac Jayson Diaz of the Department of Energy, and Engr. Jeymart Erasquin from Sibol ng Agham at Teknolohiya, Inc.

Furthermore, Engr. Gliceria Dulnuan of PLGU-Ifugao shared her learnings from the training, highlighting the design considerations and regulations in building MHPS.

"As for me, on this training on Micro

Hydro Power System I gain deep understanding of the technical, social, and environmental aspects involved in implementing and maintaining such systems within the area. And I learned about the local regulations, community engagement strategies, and technical design considerations of the project," Engr. Dulnuan shared.

Also, Engr. Jerson Pagador of Bureau of Soil and Water Management stated his realization of the potential impact of establishing efficient MHPS in the country.

"I understand that MHPS have a great impact, especially in the remote areas wherein there is no grid electricity, therefore, there is a need to implement and establish more MHPS in many parts of the country. In this regard,



I want to use my knowledge and skills gained from this training to contribute and help for the establishment of many MHPS in remote areas in the Philippines," Engr. Pagador stated.

Mr. Charlie Sagudan, Training Center Director of ATI-RTC-CAR, delivered his message of support to the training. "Our level of mechanization is currently low at 2.31 hp/ha for rice and 1.23 hp/ha for all crops. As our Agricultural and Biosystems Engineer, you play a pivotal role in enhancing our farming systems through mechanization. The integration of Microhydro Power (MHP) Systems is just one avenue through which we can elevate our agricultural infrastructure. This technology not only facilitates irrigation in our farms but also fosters the generation of environmentally friendly electricity in our remote communities" // Ezra James Felix

## First CAR SWAIB Housing and Facility Inaugurated at Bauko, Mountain Province



The Agricultural Training Institute-Regional Training Center-Cordillera Administrative Region (ATI-RTC-CAR) with its partners from the Provincial Local Government Unit (PLGU) of Mountain Province, and the Municipal Local Government Unit (MLGU) of Bauko inaugurated the first Swine Artificial Insemination sa Barangay (SWAIB) Housing and Facility in the Cordillera Administrative Region on March 13, 2024 at Otucan Norte, Bauko, Mountain Province. The SWAIB facility in Bauko aims to support the provision of quality and superior male genetic materials and address the gap in the availability of male genetics due to restriction of animal movement imposed to counter the spread of the African Swine Fever (ASF). SWAIB is one of the Government programs to support the local swine industry's recovery from ASF and to further its overall development. It is part of the Department of Agriculture's Integrated National Swine Production Initiatives for Recovery and Expansion (INSPIRE) Program. Specifically, SWAIB is designed to complement INSPIRE's Component 2 which



is the establishment of swine breeder multiplier farms towards building, restoring, and recovering the breeder base to support the gradual restocking and repopulation of the swine industry.

The Department of Agriculture's National Livestock Program (NLP) leads the INSPIRE's overall implementation in the country while the ATI, and the DA Regional Field Offices in partnership with concerned stakeholders such as Local Government Units, execute the program at the field level. Following the SWAIB Project Implementation Guidelines, the proposal of PLGU Mountain Province Provincial Veterinary Office for the establishment of

a SWAIB facility in Bauko was approved and implemented in 2023.

The NLP, through the ATI, funded the construction of the facility, the PLGU Mountain Province provided the project site, while the DA-RFO-CAR provided technical inputs during the project validation. The ATI, BAI, and DA-RFO-CAR will also continue providing technical assistance during the first three-years of the project's implementation. Aside from the climate-smart animal housing facility, the SWAIB Project, through the ATI, will also provide 10 boars from the ATI International Training Center on Pig Husbandry, farm office,

(continued on the next page)

### First CAR SWAIB... (from Page 11)

laboratory, and equipment. Once fully operational, the facility is expected to produce quality semen which will be administered through artificial insemination across hog farms which are located at most two hours from the facility.

Training Center Director (TCD) Charlie C. Sagudan led the ATI-RTC-CAR team during the event while Governor Bonifacio C. Lacwasan, Vice Governor Francis O. Tauli, members of the Sanguniang Panlalawigan, Provincial Veterinarian Rodelio B. Bagawi, and Bauko Mayor Randolph T. Awisan headed the Mountain Province delegation. Rev. Johnson Falitang, Rector of the Saint Paul Parish in Otucan, Bauko officiated the dedication and blessing of the facility.

Afterwards, a ceremonial turnover followed which started with the project contractor Tawid Builders

### Center Celebrates ... (from Page 3)

such as Benguet State University-Horticultural Research and Training Institute, Bureau of Plant Industry-Baguio National Crop Research, Development and Production Support Center, Encam Agri Marketing, SeedWorks Philippines Inc., Pilipinas Kaneko Seeds Corporation and East-West Seed Philippines, the ATI-RTC-CAR distributed assorted vegetable seeds, lemon seedlings, and learning materials to 75 farming families.

The community outreach was co-hosted by the Atok Municipal Local Government Unit, specifically through its Municipal Agriculture Office, the PCJEAM Farm LSA at Wagangan, Paoay, Atok, Benguet on February 20, 2024.//Nikao Ramos, HR Support Staff

Corporation turning over the facility to the ATI-RTC-CAR. TCD Sagudan then handed the keys of the facility to the PLGU Mountain Province through Governor Lacwasan.

Dr. Bagawi then led the guests around the facility where he explained the features of the structure. Leaders from both the ATI-RTC-CAR, the PLGU Mountain Province, and MLGU Bauko expressed their support and sustained commitment on the project. Aside from the Governor, and the Vice Governor, five members of the Mountain Province Sanguniang Panlalawigan were present during

the activity namely: Ezra Samson A. Gomez, Committee Chair on Agriculture and Agrarian Reform; Henry D. Bastian, Committee Chair on Appropriations; Ricardo M. Masidong, Committee Chair on Senior Citizens; Johnson Bantog, Committee Chair on Ways and Means and Peace and Order; Thomas Tawagen, Indigenous Peoples Mandatory Representative to the Sanguniang Panlalawigan. Dionisio K. Wakdisen represented Congressman Maximo Y. Dalog, Jr during the event while Otucan Norte Barangay Captain Alfredo Sabey completed the multi-level delegation of elected officials who graced the event. \\Adrian Chris P. Velasco



### 1st CUAMF ... (from Page 3)

their achievements, share experiences, and learn from fellow practitioners in the field.

Ms. Perla Epie, Project Officer, underscores that the summit serves as a pivotal platform for a wide array of stakeholders, including farmers, agricultural practitioners, government agencies, and community leaders. It facilitates a dynamic exchange of knowledge, experiences, and best practices in urban agriculture. By showcasing the achievements of Community Urban Agriculture Model Farms (CUAMFs), the goal is to inspire and empower other communities to establish similar endeavors tailored to their unique contexts.

Furthermore, the initiative to convene stakeholders and foster collaboration in promoting sustainable urban agriculture practices through Community Urban Agriculture Model Farms is rooted in the pressing need to address multifaceted challenges facing urban environments today. Also, the summit embodies a collaborative approach to addressing pressing agricultural and environmental concerns by weaving together diverse perspectives and expertise. It underscores the importance of collective action in fostering resilience and sustainability at the grassroots level. Through this concerted effort, the summit aims to catalyze tangible progress toward a future where urban agriculture thrives as a cornerstone of resilient thriving communities.

ATI-RTC-CAR Center Director Charlie C. Sagudan, BPI-BNCRDPSC Center Superintendent Jesus R. Aspuria, Mr. Bentres Goyo from the DA-RFO-CAR APCO Kalinga, Kalinga Provincial Agriculturist Engr. Domingo A. Bakilan, Kalinga

Governor James S. Edduba represented by Mr. Rogelio Lawad, and Tabuk City Agriculturist Mr. Lim Ducyogen graced the opening activity of the summit.

One of the highlights of the summit was the awarding of the successful implementation of CUAMF in their respective areas of concern. The Manuel L. Quezon Elementary School of Baguio City garnered 1st place showcasing their gulayan sa paaralan which continues to inspire students to engage in agriculture and agri-entrepreneurial activities. Coming in as 2nd place was Granjeros de Oeste Organization of Irisan, Baguio City showcasing their edible landscaping gardening techniques. The 3rd place was the Lagawa Organic Agriculture Farmers Association (LOAFA) of Lagawa, Bauko, Mt. Province. LOAFA is organized to showcase organic agriculture to the community. It serves as a practical and hands-on activity for students and local farmers who want to increase their knowledge concerning organic agriculture. A total of 25 participating urban agriculture model farms from Baguio City and adjoining municipalities of the province of Benguet, peri-urban areas in Mountain Province, and Tabuk

City.

The DA-RFO-CAR, BPI, DOST, DTI, FPA and PCIC shared their programs, projects, and services offered to help spread the community's urban and peri-urban agriculture endeavors during the afternoon plenary session.

The summit has the theme "Rooted In Unity: Fostering Community Growth via Urban Gardening" which underscores the summit's dedication in tackling global challenges, leveraging unity as a force for change, advocating sustainable practices, fostering social cohesion, and facilitating community involvement.

There were 92 attendees of the summit coming from various community urban agriculture model farms in CAR, representatives of partner LGUs such as Tabuk City, and the PLGU Kalinga, partner national government agencies such as the DA-ATI-Regional Training Center-CAR, DA-Regional Field Office-CAR, DA-Bureau of Plant Industry-Baguio National Crop Research, Development and Production Support Center, and Department of Trade and Industry-Kalinga. // Perla L. Epie



### ATI Cordillera Adds 5...

*(from Page 4)*

and surveillance of animal diseases. This program is one of the offshoots of the Philippine experience on the African Swine Fever (ASF) and is implemented as one of the measures to control and prevent the further spread of ASF through the wider Bantay ASF sa Barangay (BABay ASF) program.

This training is implemented by the Agricultural Training Institute-Regional Training Center-CAR (ATI-RTC-CAR) in partnership with the DA-Reginal Field Office-CAR (DA-RFO-CAR), Provincial and City Veterinary Offices, and Municipal Agriculture

Offices in the region. Primarily the BBO, through this training, are being capacitated to enhance their skills in collecting specimens for laboratory testing. This includes proper preparation and handling of materials and tools, restraining of animals, collection, handling, packaging, and transport of specimens.

During the training, resource persons emphasized that mastery in collecting blood for laboratory tests takes time and needs more practice. Hence, it should be done under the supervision of a licensed veterinarian from the MAO or PVO. Aside from specimen collection, participants also did drills in conducting farm

biosecurity assessments. Here, they were taught how to be very observant, objective, and creative in extracting honest answers from their fellow farmers. Moreover, BBO were also instructed to be vigilant and strict in the surveillance of animal diseases and in monitoring quarantine measures. Thus, they have to be in constant coordination with the MAO and the PVO. Finally, BBOs will be invited for more related training and also during livestock-related activities of the MAO and the PVO at their barangay to further enhance their knowledge and skills. // *With reports from Maribeth M. Ladu-an and Lorna W. Sawac*

### Launch of FSTP...

*(from Page 4)*

nurture farmer-scientists.

The Farmer-Scientists Training Program aims to raise farmers' incomes and standard of living above the poverty line. It is a three-phase, integrative, and holistic approach to agricultural research, development, and extension that focuses on helping farmers who grow crops like corn, rice, vegetables, and animals in a system to adopt sustainable and scientific farming practices.

The program includes the processes of learning and addressing problems in farming as an enterprise through lectures, fieldwork, and the development of values for love of God, nation, and people as well as the mobilization of resources from various stakeholders.

Under the first phase, participants will set-up experimental plots of corn to compare the effects of organic fertilizers versus inorganic fertilizers, integrated pest management, varietal trials, and intercropping, among others.



### Empowering... *(from Page 6)*



Cultivation of farmers' minds for love of God, country, and people is emphasized at this phase.

Government officials expressed their support for the endeavor during the launching ceremonies. They also emphasized the importance of investing in science education and fostering a culture of scientific inquiry and innovation. The leaders highlighted the potential of the FSTP not only to produce skilled scientists but also to drive economic growth, enhance national competitiveness, and address pressing social and environmental issues.

The launch events were participated by ATI-RTC-CAR Center Director Charlie C. Sagudan together with the Corn and Cassava Focal Person, UPLB staff (as the program lead), government officials from the respective municipalities, and 30 participants from each site.

The FSTP Phase I represents a significant milestone in the Philippine government's efforts to promote science and technology education and build a strong foundation for a knowledge-based economy. With the support of stakeholders from government, academia, and the private sector, the program is poised to make a lasting impact on the country's scientific landscape and inspire and attract more farmers.

As the FSTP participants begin their training journey, hopes are high that they will emerge as leaders, knowledge-bearers, ready to share their learnings, driving positive change and contributing to the advancement of the corn industry. // *Vicky May Guinayen*

accumulated during the training. Also, they were challenged to expand their learning process by joining various capability-building activities organized by the different sectors.

During the closing program, Ms. Florence Jose, Administrative Officer V of TESDA-Kalinga, expressed her admiration to the trainees, stating that "Graduation is not the end but it is just the start of your journey where you are going to venture into new learning that will mold you to be better. Based on the activities presented, I have seen that you have participated well. You were eager to share your own ideas and skills, and I also noticed that you enjoyed each activity, which is the most important thing of the learning process." She also expressed her hope that the completers would be like the Farm School owners by establishing their own learning sites for agriculture, thereby expanding the services available and meeting the needs of farmers in their localities.

Also, Mr. Lim N. Ducyogen, City Agriculturist of TabuK City, Kalinga challenged the participants on how they would utilize their learnings and

knowledge gained during the span of 12 days training. "We hope that you would use this learnings and skills mastered as a steppingstone towards a bright future for our agriculture sector. The agriculture sector is facing various challenges in our community so we hope that you, the completers, can also be tapped to assist us in fixing some of those problems. So, as you return to your farms and communities, remember the importance of sharing your knowledge and experiences with others."

The completion of the Training of Trainers on Production of High-Quality Inbred Rice and Seeds and Farm Mechanization marks not the end of a learning journey, but the beginning of a new chapter in the lives of our future trainers. Over the course of 12 days, these dedicated individuals have been equipped with the knowledge, skills, and determination to make a tangible difference in the rice farming communities of Kalinga and Ifugao.

A total of 30 participants coming from the different RCEF Learning Sites for Agriculture successfully finished the said course. // *Esjay M. Zausa and Jaypee D. Na-oy*



## ATI-RTC-CAR spearheads PGS Training for Organic Agriculture Organizations of Abra



To promote a locally focused quality assurance system for organic farming, ATI-RTC-CAR conducted Batch 1 of Training of Trainers on Participatory Guarantee System for Organic Agriculture Organizations on April 15 to 26, 2024 held at Arquitola's Integrated Farm, Calumbaya, Dolores, Abra.

The ten-day training headed by Mr. Edwin C. Dickson, Agriculturist II and Organic Agriculture Focal from ATI-RTC-CAR was attended by the members of Abra Organic Provincial Agriculture Cooperative (ABOPAC); Abra Diocesan Teachers and Employees Multi-Purpose Cooperative – Mt. Carmel Agri-tourism and Training Center, Inc (ADTEMPCO-MCATTICI); and Agricultural Extension Workers (AEWs) from different LGUs of the said province.

During the training, Mr. Dickson discussed the Organic Agriculture Act, its amendments, Implementing Rules and Regulations, Organic Agriculture

Standards, Establishment and Operation of a Participatory Guarantee System, and Peer Review and Certification Protocols which are key elements in organizing the PGS group.

Meanwhile, Mr. Jomar P. Tacio, Agriculturist I from DA-RFO-CAR talked about the Organic Agriculture Standards and the National List of Permitted Substances for Organic Agriculture as a tool for building and generating the cooperative's Internal Standard (IS) and Manual of Operations (MOP) in accordance to the Philippine National Standards (PNS). These (IS & MOP) are required by the Bureau of Agriculture and Fisheries Standard (BAFS) from cooperatives who want to be certified and accredited as an Organic Certifying Bodies (PGS).

Also, Mr. Doweno Santiago Jr. Agriculturist II from DA-RFO-CAR Regulatory Division, discussed on the Accreditation of PGS Group as an Organic Certifying body providing details on the

application, and processes for certification and accreditation.

During the training, workshops and field activities were provided to guide the participants in the needed requirements and regulations.

Furthermore, Ms. Jam R. Balingan, Chief of the Career and Development Section (CDMS) at ATI-RTC-CAR, graced the closing program. She provided encouragement and imparted an inspirational message to the participants.

The said training enables the cooperatives to adopt and comply with the PGS requirements to be certified and accredited as core PGS groups promoting consistent and applicable organic agriculture standards and corresponding technical regulations. If certified and accredited, they will be the first Organic Certifying Bodies through PGS in Abra. //with reports from Mr. Aldrin Sagao, Training Support Staff

## Benguet Hosts the 9th Regional 4H Youth Camp

In support towards developing innovative young farmers in the region and in preparation for the National 4-H Youth Convention, the Department of Agriculture through the Regional Training Center of the Agricultural Training Institute in the Cordillera Administrative Region conducted the 9th Regional 4-H Youth Camp on Capability Building and Skills Enhancement Training with the theme "RELIVE the 4-H in YOUTH: Re-Energizing and Empowering 4-H Leaders in Valuable Agri-Fishery Engagement at Benguet Agri-Eco Park, Bulala, Bayabas, Sablan, Benguet on May 17-19, 2024.

The three-day activity started with the parade of colors joined by 68 delegates coming from the different provinces of Cordillera, staffs of DA-Regional Field Office-CAR (DA-RFO-CAR), DA-ATI-RTC-CAR, Municipal Local Government Unit (MLGU) of Sablan and Volunteer Leaders' Association of the Philippines (VLAP) officers which were followed by the posting of the 4-H club emblem headed by Ms. Aida Pagtan and Ms. Gladys Alijo from DA-RFO-CAR



for the Head; Mr. Cristino Balancio and Ms. Segundina Magatanao, VLAP Representatives for the Heart; Ms. Delinia Juan, Benguet Provincial Agriculturist for the Health and Mr. Jay-ar Barana, MLGU Sablan representative for the Hands. Hon. Alfredo Dacumos, Jr. Sablan Mayor, welcomed the delegates and showed his support through his speech that was warmly delivered by Mr. Barana, envisioning the convention to be a testament to the power of youth leaders and catalyst for meaningful change in the agri-fishery sector.



Ms. Veronica Siloy, DA-ATI-RTC-CAR RBO Focal Person officially opened the activity, which was then followed by the inspirational message of support delivered by Ms. Pagtan, Ms. Juan, and Mr. Balancio centering their talk on the 4H club as a possible solution in addressing the problem of aging farmers.

Ms. Cristine Joy Crisologo, a former intern of the Filipino Young Farmers Internship Program in Taiwan (FYFIPT) batch 2022 served as the keynote speaker. She shared her experience as a 4-H club member, an intern and currently as an entrepreneur. She also said that she is eager to share what she has learned and encouraged her fellow 4-H Club members to grab every opportunity that comes their way as these will benefit them in the future.

Different lectures on Transformational Leadership cum Group dynamics; Mental Health Awareness and Management; and Plant Propagation were also delivered by Mr. Balancio, former DA-ATI-RTC-CAR Senior Agriculturist and RBO Focal

(continued on the next page)

Person; Ms. Ylona Veronica Aben-Bayod, Registered Psychologist and; Mr. June Bayeng, Agricultural Technologist.

Different contest categories were also joined by the different provinces. One, is the Regional Excellent Achievers' Awards that

recognizes and supports the excellent works and contributions of the 4-H Clubs and its members across the region that uphold the four-fold development of the head, heart, hands, and health. Two, the 4-H Agri-innovation Pitching which centers on addressing critical issues and concerns within the realms of the 4-H Club, Agriculture, and Fishery Sectors and encourages the participants to propose transformative solutions that elevate and revolutionize these sectors; the 4-H Agri-Tale Contest which is a video making contest featuring the real-life success stories of a 4-H Member. Three, is the 4-H Songcon Duet which is a songwriting and singing contest. Last, is the 4-H Trashformation which aims to create a design that focuses in promoting the 4H Club of the Philippines, its program and activities.

The candle lighting ceremony was also conducted on May 18, 2024, and was joined by the 4H Club Regional President, Mr. Ryan Palunan, the DA-ATI-RTC-CAR staff, Sablan MLGU, 4-H Club coordinators and the 4H club members.

Winners of the different contest categories were announced and awarded during the closing program on May 19, 2024. Mr. Charlie C. Sadugan, ATI-RTC-CAR Director reiterated to the 4H Club members during his closing message that they belong to the youth sector and it means that there are a lot of potentials that await them so they must never waste opportunities and for the youth to practice more to sharpen the talent that they have. // *Tiffanie Grace C. Beñgeg and Jomar T. Guerzon*



## ATI-RTC-CAR concludes its Enhancing Extension Delivery Training Program

**A**gricultural Training Institute - Cordillera Administrative Region (ATI-RTC-CAR), as an implementing agency in improving the extension delivery to the farmers of the region, conducts a training program for agricultural extension workers. With this, Course 5: Training Management as the ender course of the program concludes last May 29, 2024, at the Regional Training Center of Cordillera.

The said training program aims to continuously develop and enhance the knowledge, skills, and attitude of the LGU Agricultural Extension Workers for better agricultural extension delivery in their localities.

In addition, the training program is composed of five courses; Course 1: Basic Course on Agricultural Extension Delivery; Course 2: Community Needs Assessment; Course 3: Writing a Winning Project Proposal; Course

4: Resource Person Development Course; and Course 5: Training Management.

Furthermore, Course 5: Training Management, focuses on capacitating the participants on the definitions and concepts related to training, as trainers, and the training cycle.

To further capacitate the participants on managing a training program, Mr. Cristino E. Balancio, Private Extension Practitioner, discussed the key principles and considerations to conduct training effectively and efficiently where he elaborated on the things to do before, during, and after implementation.

Consequently, the participants conducted actual training from their respective offices in the application of the lessons learned from the lectures in which they were evaluated and were provided with a feedback session during

the closing program to create opportunities for learning through understanding their strengths and areas for improvement.

Also, Mr. Charlie Sagudan, Training Center Director of ATI-CAR graced the program where he congratulated the participants for completing the course and shared a message of encouragement for the participants to integrate their learnings into their extension services delivery.

Moreover, Ms. Kris-Anne Martinez, an Agricultural Technician from Tineg, Abra, expressed her gratitude for her learnings from the training and how it can help them as extension workers improve their implementation.

"Ditoy nga training ko nga na-experience nu kasanu ma-improve ti skills ko as a resource person. Actually, ditoy nga narugianan jay pagka-resource person ko. Sapay koma ta mas ma-improve pay ket





agpatraining kami manen tatta iti integrated rice-based farming system. Mausar ko daytoy nga skills nga apan mi naadal tatta (*Through this training, I was able to experience how to improve my skills as a resource person. It started through this training. I hope I can still improve more. I will certainly use these skills in our*

*upcoming training on integrated rice-based farming systems),” Ms. Martinez shared.*

Thus, Ms. Jam R. Balingan, the Project Officer of the said training, shared a message emphasizing hopes for the participants to apply what they have learned in their

respective localities and improve themselves to deliver quality extension service.

Further, the training program was concluded with 34 completers from 95 kick-off participants from Course 1 which was conducted last 2021. // Ezra James Felix, CDMSS Technical Support Staff

## Paella a la Cordillera: A Tribute to the Farmers and Fisherfolks of Cordillera



**A**s the main stakeholder and captain of the ship for agricultural development in the Region, the Regional Field Office of the Department of Agriculture in the Cordillera gathered its stakeholders to culminate the month-long celebration of the Farmers’ and Fisherfolks’ with a bang on May 30, 2024 at the Melvin Jones Grandstand and Football ground, Baguio City.

To mark the event memorable and to honor the farmers and



fishers who are the main actors in propelling agricultural development in the region, a giant pan was prepared to cook the first of its kind “Paella a la Cordillera.” Ingredients include Chong-ak heirloom rice from Pasil, Kalinga; Pinuneg from Kiangan, Ifugao; Kিনিing and Kinuday (from Benguet and Mt. Province); native chicken; broccoli, carrots, French beans, and cauliflower; green and red bell pepper; longganisa recado, onions (both red and white); mushroom (button, oyster, and shitake); tomatoes; parsley and lemon. Condiments used to spice the paella gigantes include olive oil, paella spices, chicken powder and salt.

Accordingly, local chefs from Baguio and Metro Manila, along with University of Baguio culinary students, prepared the dish.

Gracing the said occasion were Agriculture Undersecretary Christopher Morales, Assistant Secretary Daniel Atayde, Kalinga Gov. James Edduba, Baguio City



Councilor Maximo Edwin Jr, DA-CAR Regional Executive Director Atty. Jennilyn Dawayan, the different line agencies and bureaus of the DA family, World Food Expo (WOFEX) president Joel Pascua, local, national, and international chefs, and agriculture industry stakeholders.

Over 1,100 people were estimated to have partaken during the said event.

Another highlight of the activity is the Kadiwa ni Pangulo and Agriserbisyo Fair of the different line bureaus and attached agencies of the DA. For the ATI-RTC-CAR, products from various LSAs were on display and sold with matching advisory services to farmers who inquired about the services, programs, projects, and activities of the Center. // Bongbong L. Buli-e

# ATI-Cordillera Opens ATIng Kadiwa Center



In support of the ATI's extension modalities such as the Learning Sites for Agriculture (LSAs), Extension Service Providers (ESPs) and the Community Urban Agriculture Model Farms (CUAMF), the ATI-Cordillera formally opens the ATIng Kadiwa on May 3, 2024 at the ATI-RTC-CAR ground, BSU Compd., La Trinidad, Benguet.

The formal opening of the ATIng Kadiwa was graced by DA-RFO-CAR Regional Executive Director Atty. Jennilyn M. Dawayan, BSU President Dr. Felipe Salaing Comila, ATI-RTC-CAR Center Director Mr. Charlie C. Sagudan, LGU La Trinidad representative Ms. Nida Organo, CALSA representative Mr. Prahbat Marzan, and the different stakeholders.

The Kadiwa program is an initiative of President Ferdinand "Bongbong" Marcos, Jr. that seeks to establish a seamless farm-to-consumer market chain, eliminating intermediaries or middlemen and enabling local producers to realize higher incomes by directly vending their produce to consumers. This promising program is now

being decentralized to local government units, empowering local government units to foster self-sufficiency and economic resilience. Beyond providing affordable produce, the Kadiwa also serves as a catalyst for Micro, Small, and Medium-sized Enterprises (MSMEs), facilitating local product promotion and bolstering economic opportunities within communities.

At present, the Agricultural Training Institute has certified 93 learning sites for agriculture, funded by different banner programs, producing various kinds of both fresh and processed food products ready for market and need for promotion for a sustainable market. Aside from LSAs, the Center partnered with 25 Community Organizations for the establishment of Community Urban Model Gardens, also producing different food products. Lastly, the Center has accredited 3 Private Extension Service Providers with various agri-products.

As a support to these LSAs, ESPs and CUAMFs, the Center launched the ELSA project with a component

of the display center last November 2023. However, it was not fully utilized since the LSAs were not yet fully organized. Recently, the Cordillera Association of Learning Sites for Agriculture was organized (CALSA) and agreed to take charge of the operation of the display Center, now named ATIng KADIWA ni Ani at Kita.

RED Atty. Jennilyn M. Dawayan congratulated the ATI-RTC-CAR for initiating the Kadiwa to continuously bring safe, quality and affordable food to the consumers. She also encouraged the CALSA to register as an organization to DOLE and to collaborate with other Kadiwa centers and also to BFAR and other projects of the DA to bring more diverse products into the community.

President Felipe S. Comila of BSU expressed his support for the Kadiwa initiative of the Center.

Center Director Mr. Charlie Sagudan encouraged the CALSA to sustain the Kadiwa center and looks forward to more partnership with other Kadiwa centers and to the farmer groups and individuals to bring and sell more products in the center.

The schedule of the ATIng Kadiwa ni Ani at Kita would be every Monday and Friday, however, it may open on any day with the provision that there are available products to be sold. //with reports from Dr. Cristine B. Esnara

# The Scion and the Tree:

## Albert's Farm Citrus Technology Inspiration, Adoption, and Discovery

Sometimes, even simple ideas and ordinary life events are more than powerful enough to bring about wonderful results. Just like this tale of a humble orange tree and a persistent farmer wherein that one orange tree pushed the farmer to pursue his dream farm. It is a story of how a citrus tree grew into a farm, continued branching, budding, and finally bearing fruits.

The sources of inspiration in life are not necessarily extraordinary people, things, or events.



Throwback:

# Philippine Citrus History

According to the Philippine Journal of Science (Volume 28, No. 4, December 1925), the Washington navel variety was introduced in the Philippines beginning in 1910 from Australia. The same Journal recorded that the Valencia variety was first brought to the Philippines in 1911 from California. More planting materials of the said varieties were brought to the Philippines in the succeeding years from the same respective countries of origin. According to the Department of Agriculture (Technoguide in Citrus Production, DA-RTO-CAR CHAMP2 Scale-up, 2019), non-humid, irrigated, and subtropical areas such as Mountain Province produce some of the best quality oranges.

According to Albert, citrus trees had already been grown in Sagada for as long as he can remember so it was not just local citrus fruits but also planting materials that were already being sold in Sagada at that time. Mr. Langbayan added that while Sagada is also known for its lemon pies, lemon production was not evenly distributed in the municipality. He noted that prior to the COVID-19 pandemic most of the locally produced lemon

in Sagada were from barangay Bangaan which is located at the northern portion of the town while his barangay lies in the southern portion of Sagada.

**The citrus tree that started it all: A farmer and extension worker anecdote – extension through practical demonstration.**

Albert recalled how his interest in citrus production came about. The idea of citrus production as an alternative to vegetable production was inspired by Ms. Carmen M. Fomeg-as, who at that time was an AEW at the MLGU Sagada Municipal Agriculture Office. Ms. Fomeg-as has an orange tree planted at their front yard. During a visit at their residence Ms. Fomeg-as shared to Albert “dayta man daytoy maysa poon nga daytoy isu

*ti mangbibiyang iti gatas na daytoy buridek ko.”* (That sales from the fruits of that one tree takes care of the milk expenses of my child.) That is where he got the idea of going into citrus production. He realized “just think of how much is the cost of milk and the number of years the child will consume milk, so if just one orange tree can help that way, then how much more if there are more trees?”

He started his citrus farming journey searching for a local seedling source. He inquired at the Municipal Agriculture Office which referred him to a seedling producer in Poblacion, Sagada. Albert recalled that the seedlings he was supposed to purchase were still at the seedbed though these were already mature enough to be transferred in seedling pots. He shared “when I went there the seedlings were not yet transferred in individual seedling bags, so I have to transfer the seedlings myself then I bought 70 seedlings, but I was only able to plant 63 and I gave away the rest to my neighbors.” At present, the citrus varieties in Albert’s Farm are Navel (Washington), Ponkan, Clementine, Hamlin, Gayunan, Dancy, and lemon. The first variety he planted was the Queen variety, but he later reduced these and added more of the other varieties.

**Grafting farm diversity in citrus farming.**

Planting citrus was just the beginning, and as he cares for the seedlings



to mature, Albert cannot just fold his hands and wait for the fruits to fall on him. He had to find other ways to make his farm productive while waiting for the first fruits of his citrus orchard. Albert’s limitless imagination again came in handy this time as he explores opportunities from a citrus-based diversified farm. Thus, a citrusy flavor is not the lone aroma Albert’s Farm can offer. Drawing inspiration from the concept of grafting citrus, Albert also branched out into producing other high value crops in his farm.

One of these are strawberries, similar to those planted in La Trinidad, Benguet. While the Municipality of La Trinidad in Benguet holds the title of being the “Strawberry Capital of the Philippines” strawberry production is sporadically practiced in the highlands of Benguet, and Mountain Province. Mr. Langbayan attests to this as he noted that while strawberry production has been in Sagada for quite some time, the volume of production is not enough to satisfy even just the local demand. This gave him the idea of adding strawberries to his farm.

Initially, he planted the strawberries between the newly established citrus as these served as an alternative source of income while waiting for the citrus trees to mature and bear fruit. He further noted that “*siyempre pinilik met diyay ta nalaglag-an uray bassit ti e-eganam ngem dak-dakel ti kwarta na*” (of course I chose that because it is more convenient in terms of weight and volume, and it still yields considerable income). At the same time,

Albert is able to control weeds and maintain cleanliness since the empty spaces between the citrus trees are used as strawberry plots. Out of the sales from the strawberries he was able to start putting up a farmhouse. However, he observed that planting strawberries continuously in the same location results to lower volume and quality of harvest. This gave him the idea of replacing strawberries with eggplants as intercrop. Again, his decision to shift from strawberries to eggplant is not a mere coincidence or a test



of luck. According to him, eggplants also have a considerable market. So, everytime they sell oranges in their public market, they also sell eggplants. Meanwhile, Albert still maintained certain areas in his farm which are seasonally planted with strawberries. Mr. Langbayan also included dragon cactus in his farm adding a Sagada flavored dragon fruit to his fruit basket offering in the local market.

Albert continues to grow his farm just like how he grows his citrus trees. His recent addition to his increasingly diversified farm is a hectare of arabica coffee which is

also a signature crop of Sagada. His shift towards coffee production is basically a matter of practicality. He explained that farmers should never be complacent even if the times are good as he experienced with his lemon production. He shared that “during the COVID-19 pandemic the movement of people was restricted so the locals had to look for something productive to do. Many turned to planting lemons since it is early maturing and prolific bearer. While that was a good thing since there was a considerable increase in our

sales out of the seedlings which we produced, it also had some unfavorable consequences.” As a result, oversupply of lemons flooded the market and consequently, there is a significant drop in the market price. While Albert takes pride in being one of the sources of most of the lemon trees in Sagada today, he must also be ready to face the consequences of such. He shared “*isunga sinasakbayakon diyay lemon ko, minulaakon ti alnus, pinasirukak en ti kape oh, tata ngay agpaysu narigaten nga magatang ti lemon ta inmado.*” (Hence, my lemon farm must be ready, so I intercropped

coffee and started planting alnus trees for shade and indeed the demand for lemon went down as production increased.)

### Citrus technology exploration and localization.

Ms. Fomeg-as, the then Municipal Agriculturist of Sagada, describes Albert as “a gifted person” when it comes to farming as he is able to adopt, and practice recommended farm practices despite his limited academic background. She added “if he will do something such as grafting, the survival rate is very high.” Albert himself admitted “I did not have any formal learning, not even training or seminars on grafting citrus seedlings.” He added, “I started producing grafted citrus seedlings through plain self-learning. I replicated what I saw and observed from the nursery where I bought my first seedlings. I just tried, and it worked. *“Inbunobon ko, in-pot ko nga kasjay, nagramot, kasano ngata? Basta napanunot ko nga nakitak ijay nang-gatangak iti planting materials, nakitak jay inkasta na nga nagsilpo isu tinured ko nga siyak mismo ti nag-aramid ti dagita planting materials ti citrus.”* (I sowed, transferred the seedlings to seedling bags, and let it stabilize. I asked myself, how will I do it and I remembered how it was done at the nursery where I bought my first seedlings then I took the courage to just try it.)

He recalled his experience when the Municipal Agriculture Office of LGU Sagada referred to him a farmer from Bangaan who wants to propagate his more than a decade old lemon trees. According to Mr. Langbayan, these lemon trees are excellent source of scions. Since Albert has available rootstock at that time, he agreed to produce grafted lemon seedlings for the said farmer. Aside from the scions, Mr. Langbayan also noted some of his experiences in selecting rootstocks. He prefers the kara

mandarin variety as rootstock because it is more compatible, or in Albert’s own words “it accepts,” any variety grafted with it. He noted that while the trifoliolate citrus is also a good rootstock it is only compatible to the Ponkan variety. Again, he was asked how he learned all of these to which he replied *“Siyempre tapnu agnaynayonak idiy da amok ket nu ada makitak ngay nga apay nga sabali ti kwana daytoy, apay nga sabali ti bunga na, apay makan dayta?”* (Of course, I need to continuously learn. So, whenever I see a different citrus tree I often ask about it, why are the fruits different, and are the fruits edible?) He then related his experience with the trifoliolate variety which he encountered in the neighboring municipality of Besao while selling oranges. He asked the residents about the trifoliolate citrus trees and why are they not harvesting the fruits. Albert found out that residents in the area dislike the fruits because of its strong sour taste. This is where he got the idea to try the trifoliolate as a rootstock. *“Ah nu naarsem dayta, kunak ijay panunot ko, mabalin dayta nga ibunobon nga pang rootstock.”* (Since the fruits have a strong sour taste then it can be a good rootstock.) However, Albert experienced that the presence of the trifoliolate variety in his farm has a disadvantage. He revealed that *“madi ta napigsa ti pollination na ngay paarsemena jay asideg na isunga pinukan ko.”* (I have to removed it because it has a very high tendency of spreading its strong sour taste through pollination specially on the nearby trees.)

### Why use sour orange varieties as rootstock?

In 2012, the US-based Farm Progress Network published an article titled “Sour orange rootstock carries pros and considerable cons.” It claimed that sour orange rootstock is



fairly tolerant to calcareous, salty, poorly drained soils. However, there is a downside as the same article advised farmers to be very careful in adopting this technique because the Citrus Tristeza Virus (CTV) or the Quick Decline disease have caused the death of millions of citrus trees from sour orange rootstock.

Albert also stressed the critical role of pruning in maintaining the overall health not just of each individual tree, but more importantly, of the entire orchard. He shared “the techniques which I use in maintaining my citrus trees such as identifying and removing infected parts, all of those I discovered through self-learning and trying these firsthand. I had to learn all of these because if I will just totally remove an infected tree and replace it with a new seedling, then I will have to wait for years again before I can harvest. The advantage of mastering pruning in citrus is that when, let us say, one branch is infected, I can just remove that while the other branches remain.” He then shared how he applied this to the Queen variety which was the first variety he planted. He however, had to reduce these later and added more of the other varieties. He explained “I removed most of the Queen variety because it has this behavior of reducing the number of its fruits which it will support until maturity. In other words, it has this natural characteristic of aborting by just dropping the rest of the other immature fruits which it cannot sustain until maturity.”

He added “while I did entirely cut some of the Queen variety trees, I also “converted” the others into the Dancy variety. What I did was to cut the main branches and then graft scions from the Dancy variety. The outcome is a citrus tree, the trunk of which is of the Queen variety while the productive branches are



of the Dancy variety.” This grafting technique is called “top working” according to the Information Bulletin No. 305/2012 titled “Plant Propagation Technique Inarching” of the Department of Trade and Industry (DTI), Department of Science and Technology – Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD), and the University of the Philippines Los Baños Institute of Plant Breeding (UPLB-IPB). The purpose of top working, as explained in the said reference, is “to change the top of established trees that have undesirable characteristics with superior varieties.”

Albert further narrated that there are cases in his farm when a productive tree is lacking structural support. This usually results to branches breaking since the tree

is unable to carry its fruits. Strong winds from typhoons or during stormy weather conditions can also easily damage the tree to the point that some are even uprooted entirely. There are also times when a productive tree is either injured or infected with diseases and there are no other remedies than pruning most of its branches thereby reducing its productivity and structural strength. One technique which Albert tested and adopted in his farm is to plant another seedling near the base of the damaged or weakened tree. The seedling is then allowed to stabilize and then later on will be grafted, usually through bark grafting, to the trunk of the damaged or weakened tree.

Aside from providing further structural support, Albert explained that through the said technique, the root system of the tree is expanded and thus, nutrient

absorption is enhanced. He noted that there can also be more than one seedling involved in this technique. In fact, there are also cases when three seedlings are used and then when the seedlings are grafted and are matured enough to support the entire tree, the original trunk can be removed making the entire lower trunk and the root system new. This technique is consistent with the description of inarching as a grafting technique as described in the previously mentioned DTI, DOST, and UPLB-PCAARRD publication. Albert, however, made some modifications in adopting the inarching technique in his farm other than what was defined in the said reference. Instead of applying the said technique to two seedlings, he applied it to a seedling and a matured tree. Moreover, it is not always the case that the trunk of the original tree is totally removed as this can be on a case-to-case

basis.

Albert also shared his experience wherein the lower part of the trunk was damaged either by disease or other physical factors. However, he is not keen on cutting the entire tree since it can still be saved. Planting a new seedling for grafting purposes is also impractical because there are no readily available seedlings and time is of the essence. The spacing between the trees can also be too close and canopy cover is

too dense to allow seedlings to properly grow. Hence, one remedy is to allow water sprouts to grow just below the damaged part of the trunk. The water sprouts are then thinned to at most the three healthiest and making sure that these are distributed around the trunk. When the water sprouts are matured enough, these are then grafted back to the trunk just above the damaged portion. This technique bypasses the damaged area and as the grafted water

sprouts mature, these become an alternative set of trunk and thus saving the entire tree.

Asked about how he further maintains the productivity of his citrus trees, he smilingly replied “the secret is simply the weeds. I will let the weeds grow but just before the weeds mature, I cut these down and let these rot and decompose around the trees.” Albert noted that this practice can significantly reduce the gestation period for



citrus and is also an effective strategy for newly established citrus orchards. He shared his experience using this technique with lemons, "after seven months I started harvesting lemons and at that time there was a very high demand. There was even a time that I had to immediately get back at the farm from the market and harvest more lemons because the content of my fully loaded delivery vehicle was not enough. These scars on my arms, I actually got most of these from harvesting lemons, but it is worth it because I was able to acquire one of my farm expansion areas out of my sales from lemons alone."

**Albert's Farm LSA: Expanding the canopy of a citrus-based diversified farm in the community.**

The Sagada Municipal Agriculture Office recognized the potential and willingness of Albert as their partner in extension services. Thus, on March 28, 2016 the Municipal Agriculture Office of Sagada nominated his farm as a potential Learning Site for Agriculture (LSA) specializing on orchard crops such as citrus. After going through series of evaluation, Albert's Farm became an ATI-certified LSA on September 1, 2016 which he was able to sustain and renew on August 18, 2021 making his farm an ATI-certified LSA until 2025. Mr. Langbayan shared that he was already doing coaching sessions on citrus production with his fellow farmers either on his private capacity or through serving as a resource person with the Municipal Agriculture Office even before his farm became an LSA.

As an LSA, Albert accommodates farmers, students, and other farm enthusiasts not just from Sagada but also from other municipalities and provinces in his farm either for on-the-spot hands on assistance, lectures, or technology demonstrations. Albert also took this

as a chance to further improve his farming practices and management system. He joined a series of trainings on Good Agricultural Practices (GAP) and implemented GAP recommended practices in his farm. These include establishing designated areas for composting, farm sanitation through washing area, comfort rooms, farm waste management, judicious use of fertilizer and pesticide observing safety measures in the use and storage of these farm inputs, and more. While he acknowledged that adopting GAP practices in his farm has its challenges, he allayed the fears of other farmers that GAP is difficult and impractical specially among small holder farmers.

He highlighted his experience wherein he adopted and implemented GAP one step at a time noting that small farms will surely have difficulties if they are to instantly implement

GAP. Moreover, farmers should not view GAP as an expense or waste of resources but rather as investment as the facilities and the systems once in place will make farming more efficient and systematic. In 2018, after undergoing rigorous farm and farmer evaluation and assessment, Albert's Farm became GAP-certified for the first time. Albert was able to sustain his farms' GAP Certificate with the latest issued on August 8, 2022 and is valid until August 7, 2024.

Indeed, that one orange tree from which Albert took the seed of inspiration for his astonishing journey and his ever-thriving farm is a practical testament that truly, great



things always start from small things. It is also true that making his dream farm a reality may seem a daunting task, but Albert endured and most of all, continues to trust in the generosity of the Master of the harvest. As it has always been said "night and day, whether he sleeps or gets up, the seed sprouts and grows, though he does not know how (Mark 4:27). Hence, dreaming is sowing the seed and no matter how small the seed is and how uncertain things are, a person who believes and perseveres is bound for a bountiful harvest. For it has already been established that "...though it is the smallest of all seeds, yet when it grows, it is the largest of garden plants and becomes a tree, so that the birds come and perch in its branches" (Matthew 13:32). // *Adrian Chris P. Velasco*







Republic of the Philippines  
 Department of Agriculture  
**AGRICULTURAL TRAINING INSTITUTE**  
 Regional Training Center - CAR  
 BSU Compound, La Trinidad, Benguet

Our salute to all our partners, and stakeholders.  
 Iyaman. Thank you. To God be all the glory and praise.



Photo courtesy of ATI-CO-15D

## ATI-RTC-CAR BRINGS HOME THE ATI'S BEST PERFORMING CENTER AWARD

### FARMERS' CONTACT CENTER

*"Ang inyong kaagapay sa usaping agrikultura"*



1-800-10-982-2474 (Provincial toll-free)



0920-946-2474



info@e-extension.gov.ph



www.ati.da.gov.ph



www.e-extension.gov.ph

ati.da.gov.ph/ati-car

rtccar.dcc@ati.gov.ph

aticordillera  
 aticordillera-region

