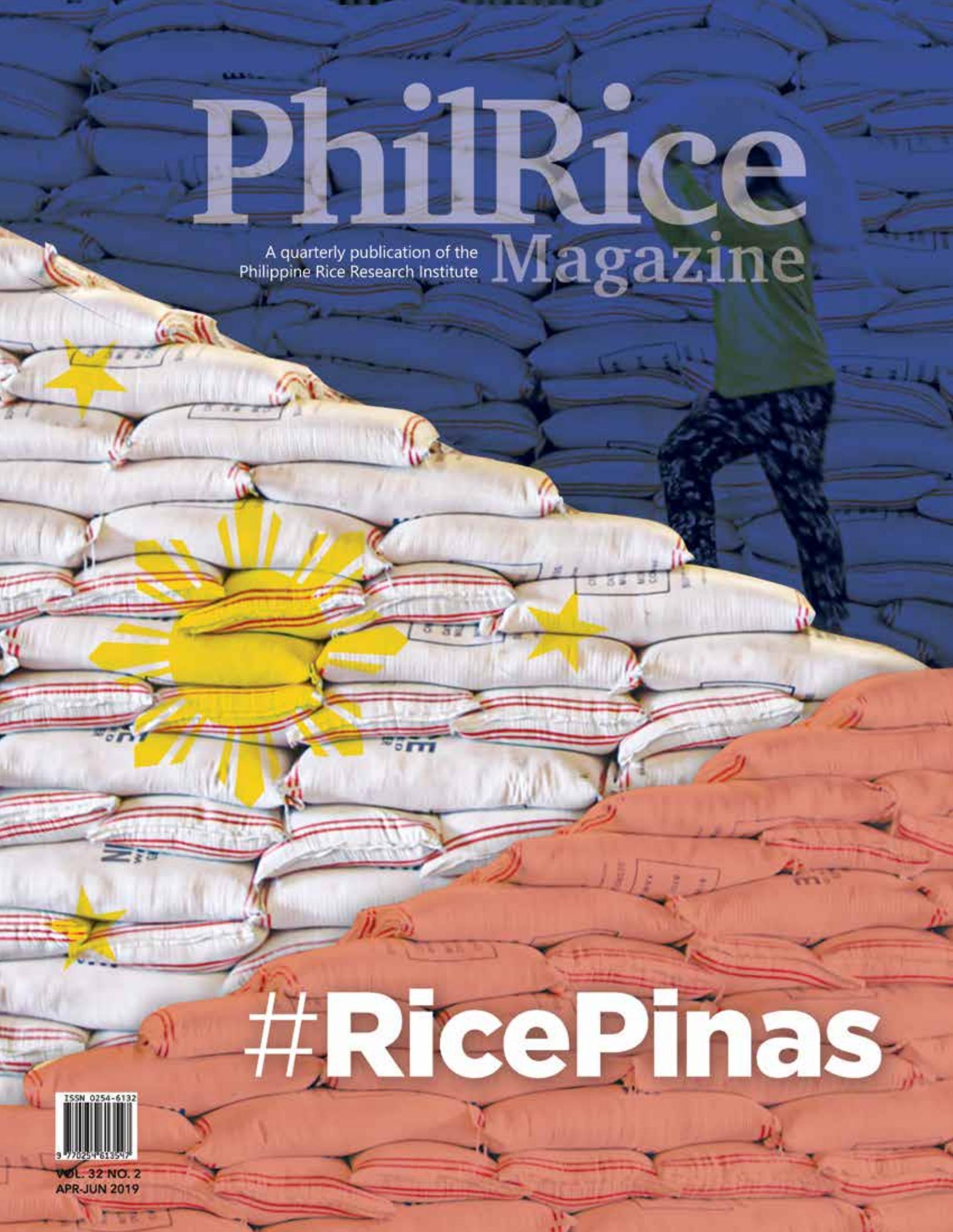


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#RicePinas

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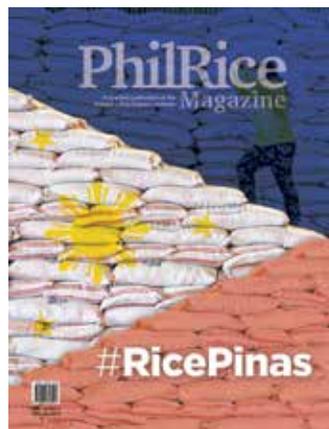


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ABOUT THE COVER

As imported and cheaper rice floods our market, now, more than ever, is the best time to rally behind our farmers. Let us help them produce more rice efficiently; buy their harvests at a fair price; and show them that we value their work. After all, the rice that they produce is what connects us and makes us Filipinos.



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#RicePinas

Rallying behind our farmers

Our farmers these days are facing a formidable competition, as more affordable rice from other countries enters our market. Worse, the average price of dry *palay* has gone down from P21.38/kg (June 2018) to P17.85/kg (June 2019). Are we just going to be passive bystanders?

Farmers need one another and us all to hurdle this struggle. Otherwise, they will probably not even comprehend what's hitting them.

This issue of our magazine underscores the primacy of patriotism and cooperation to come alongside our technology interventions. By patriotic support, we rally all Filipinos – particularly the 85% of us who remain satisfied with the performance of our President – to actively take part and give their share in this effort toward nation-building. After all, it's him

who had to give the go-signal to opening up our rice market. As reigning Miss Universe Catriona Gray had declared with conviction, we need to RAISE OUR FLAG in whatever we do and wherever we are as Filipinos. Deep inside her, she knew how droves of her *kababayan* were pushing her candidacy. In the same vein, millions of Filipinos feel as winners every time Manny Pacquiao's hands are raised in victory.

The technologies and services we will be deploying to farmers under the Rice Competitiveness Enhancement Fund (RCEF) must be seasoned with strong patriotic support and cooperation from every Filipino. As comprehensively discussed in our previous issue, RCEF is designed to enable our rice farmers to cope with the pressures associated with the open rice market.

Success in any collective endeavor like the RCEF can only be genuinely realized with proper values and behaviors. True enough, our national history reminds us that many of our victories were achieved due to unified patriotism. Once-poor South Korea attributes its economic triumphs to three values: self-help, diligence, and cooperation. With Christianity introduced to us way back in the 16th century, no one can claim that these values are Greek to us Filipinos. Instead of reciting these guideposts, we need to live them.

We bring you here stories of love for rice and our farmers. May these inspire us to unite and awaken our resolve to help our farmers and our rice industry toward rice-secure Philippines! Read on.

New rice specialists trained



A trainee operates the mechanical transplanter during a field exercise. According to PhilRice engineer Arnold Juliano, the machine can help lessen transplanting shock in young rice seedlings, promote early seedling vigor, uniform crop stand, and enough density of seedlings per square meter.

PhilRice has started training new rice specialists to maximize assistance to farmer-beneficiaries of the Rice Competitiveness Enhancement Fund (RCEF) and become as competitive as their ASEAN counterparts.

The Rice Specialists' Training Course (RSTC) heightens the technical competence of rice focal persons mainly from the Agricultural Training Institute (ATI) Regional Centers and DA-Regional Field Offices, May - Aug. A total of 29 participants have completed part 1 of the course that focused on mind-setting anchored on the transformational leadership framework to strengthen their sense of mission in helping farmers and farming communities liberate themselves from their underdog mentality and become more competitive. Part 2 gravitates toward strengthening the specialists' skills on diagnosing and managing field problems anchored on the *PalayCheck* and *Palayamanan* Systems.

The third part of the training, slated Sep 23-Oct 25, will focus on other knowledge

and skills that will help fine-tune the delivery and sharing of rice production technologies to farmers.

The modular season-long training, orchestrated by the Technology Management and Services Division (TMSD), is one of the preparatory activities necessitated by the implementing rules and guidelines of the so-called Rice Trade Liberalization Law (RA 11203).

"There is a need to train new rice specialists as most of the graduates of the earlier training programs have either been retired, promoted, or have transferred to the private sector," said TMSD head Lea Abaoag.

The first training of rice specialists was conducted in the early 1990s during the implementation of the *KASAKALIKASAN* Program, which focused on integrated pest management and facilitating Farmers' Field Schools (FFS). The second set of specialists were trained 2008-2011. They were hired by the Institute as Rice Sufficiency Officers deployed in major

rice-producing provinces. The Institute has also trained specialists in hybrid rice production.

According to Abaoag, PhilRice also conducted a different season-long training program through the project titled *Improving Technology Promotion and Delivery of the Next Generation of Extension Professionals and Other Intermediaries* (IPaD).

"The course catered to the expanded role of rice extensionists and increasing their capacity to respond to the more complex, rapidly changing, and challenging agricultural environment. We called the graduates as AgRiDOC," Abaoag said.

The current trainees will be divided into five groups to handle field demonstration in the PhilRice learning farm. They will also manage a FFS and establish *PalayCheck* techno demo farms in Llanera and Rizal, Nueva Ecija where they can immediately test and apply their learnings from the training.

"We are aligning our modules with the Technical Education and Skills Development Authority (TESDA) guidelines so that the trainees will be ready for NC II assessment on Grains Production," Abaoag explained.

After completing the course, the new generation of rice specialists will be included in the pool of resource persons for the rice production training courses/ programs. They will also handle technical dispatches in their respective areas.

RCEF or Rice Fund was created through RA 11203, an act liberalizing the importation, exportation and trading of rice, lifting for the purpose the quantitative import restriction on rice, and for other purposes. Sen. Cynthia A. Villar is the principal author and proponent of the said law.

Ten percent of the Rice Fund (P1B) will be used for the provision of extension services by PhilRice, Philippine Center for Postharvest Development and Mechanization, ATI, and TESDA. - **MARY GRACE M. NIDOY**

IPOPHL recognizes PhilRice

For being the government agency with the highest number of patents granted, PhilRice in April received from the Intellectual Property Office of the Philippines (IPOPHL) the IP Award for Top Patent Grant during the IP Convergence 2019 held in Manila.

The award is usually bestowed on private and public institutions with record-breaking achievements in IP protection, utilization, and/or commercialization.

Through its IP Management Office (IPMO), PhilRice garnered seven patent grants from 2009 to 2018 for its seed treating machine, mobile rice hull gasifier system for different applications, rice hull charcoal maker, and flexible hermetic storage container, among other inventions.

Atty. Jerry Serapion, IPMO head, said they now have only two trained patent drafters but they plan to capacitate more employees, especially those from the Business Development Division to secure institutional inventions for commercialization.

“We have been conducting IP awareness seminars in our stations. We intend to do this as well at the



Business Development Division head Fidela Bongat (center) together with IPMO head Atty. Jerry Serapion (2nd from left) receives the plaque of award from the IPOPHL management. As of writing, PhilRice has a total of nine patents granted and 19 filed patent applications.

Central Station for our top leaders and middle managers,” he announced.

Meanwhile, PhilRice has signed a Memorandum of Understanding with IPOPHL in support of its ‘Mind2Market’ Program that aims to strategically motivate IP creators.

We are the first government agency to join the Program, essentially

agreeing to be part of the official network of agencies that support IP owners through IP creation, protection, utilization and eventually, commercialization.

Through this partnership, IPOPHL hopes to help PhilRice in commercializing its technologies by connecting it with fund-granting agencies. - **ALLAN C. BIWANG JR.** WITH REPORTS FROM IPOPHL



Patriotic rice

A Philippine flag made of rice hull was showcased during the Independence Day celebration at SM Megacenter and SM City Cabanatuan, Nueva Ecija, June 12. PhilRice, known for the rice paddy art at its FutureRice Farm, manually dyed the flag with water-based paint to maintain the texture of rice hull.

Seed production area expanded



As it prepares to help implement the Rice Competitiveness Enhancement Fund, PhilRice partners with the USM (above) through its President and PhilRice trustee Dr. Francisco Gil N. Garcia to expand its seed production area in the region. It also extended its partnership with the MMSU (left) led by its President, Dr. Shirley C. Agrupis, to develop a 10-ha land for seed production.

PhilRice signed on June 24 a memorandum of agreement (MOA) with the University of Southern Mindanao (USM) in Kabacan, North Cotabato establishing a 50-hectare seed production area to increase accessibility to high-quality seeds in the region.

“We have to double our efforts in producing high-quality seeds. With the Rice Competitiveness Enhancement Fund (RCEF) that will be given to us, the demand for foundation, registered, and certified seeds will spiral,” said Dr. Sailila E. Abdula, PhilRice acting executive director.

Abdula underscored that for our farmers to become competitive, they should start with high-quality inbred

seeds. PhilRice will utilize some 90% of the P3 billion rice tariff money to procure and distribute such seeds to qualified farmers.

To be called PhilRice-USM substation, the area will be utilized largely for seed production, rice technology demonstration, and experiments. USM is one of four state universities in the country that have achieved excellence in agricultural education.

According to Dr. Cayetano C. Pomares, USM vice president for research, development, and extension, they are aware of the low adoption of certified inbred seeds in Southern Mindanao. With this collaboration, they hope to see farmers cultivating their rice fields with high-quality seeds.

Meanwhile, the Mariano Marcos State University (MMSU) in Batac City, Ilocos Norte and PhilRice have agreed to sustain their partnership for 25 more years. Signed June 26, the MOA will allow PhilRice to develop a 10-ha MMSU land for seed production, technology demonstration, and construction and renovation of state-of-the-art facilities.

“With this milestone, we hope to help our rice farmers cushion the effects of the Rice Trade Liberalization Law,” expressed Dr. Shirley C. Agrupis, MMSU president.

PhilRice Batac is located within the MMSU compound, and it focuses on dry land agriculture. - **ALLAN C. BIWANG JR.**

Zaragoza farmers' group to supply Nueva Ecija's special rice

Zaragoza, Nueva Ecija farmers have started to engage in special rice business to address the demand of the province's rice cake vendors.

In a ceremonial activity in Brgy. Mayamot, farmer-members of PhilRice's Rice Business Innovations System (RiceBIS) Community Program planted special rice varieties in a demo farm managed by the Ugat-Uhay Farmers Association (UUFA), June 21. The varieties included NSIC Rc 15 (Malagkit 2), Rc 21 (Malagkit 5), Rc 402 (Tubigan 36), Rc 428 (Sahod Ulan 19), and Rc 430 (Sahod Ulan 20).

Joel Pascual, PhilRice community development facilitator, said the

association selected special rice because rice cake vendors place a premium on this type of rice. Demand for special rice flour was also raised.

With 40 farmer-participants, the program involves season-long capacity enhancement through the Farmer Business School to help them increase their income from rice farming.

To sustain interest in the enterprise, the farmers' rallying slogan is "*Basta toGather, winner!*"

According to Pascual, the slogan embeds the benefits of gathering or

consolidating farmers' *palay* for better prices and negotiating power.

He explained that farmers can benefit from economies of scale that lower the cost per unit when *palay* is sold in bulk; which makes *palay* selling more attractive to bigger buyers such as consolidators and millers.

"When realized, this model will pull the farmers away from non-lucrative individual *palay* production. Aside from *palay* trading, organized farmers can also try other enterprises, such as labor and machine contracting, input selling, seed production, rice milling, wholesaling, and retailing," Pascual said. - **ELSIE E. REYES**



Tariffication Law explained

About 1500 farmers, seed growers, extension workers, and students join the April 11-12 PalayTalakayan, a forum orchestrated by PhilRice that aimed to clarify issues raised by farmers about the Rice Trade Liberalization Law (RA11203). Participating agencies discussed rice buffer-stocking, *palay* procurement, machine distribution plans, seed production allocation, and cooperative formation. The Departments of Finance/ Agriculture, Philippine Center for Postharvest Development and Mechanization, Agricultural Training Institute, National Food Authority, Regional Crop Protection Center 3, Philippine Crop Insurance Corporation, National Seed Quality Control Services, Land Bank of the Philippines, and PhilRice experts spoke in the forum.

What's new in rice research?



New trait ensures hybrid rice purity

(Lower photo) Induced purple coloration on the male parent of Mestiso 19; (Top) Typical male parent of Mestiso 20.

Hybrid rice farmers and seed growers can now quickly assess seed purity with the addition of a new trait in Mestiso 20 (M20), a public hybrid rice variety.

To assess seed purity as early as seedling stage, PhilRice researchers have introduced purple coloration on the leaf sheaths of the male parents of M20 while keeping the other traits intact. As hybrids are generated through outcrossing of two different rice lines, they are prone to contamination as female parents may be pollinated by males of other lines than their intended partners.

Hybrid rice specialist Mel Anthony Talavera explains that maintaining seed purity is crucial to attaining the maximum potential of any variety.

“Without use of sophisticated tools, the purple coloration inherited by M20 will make it easier to assess seed purity through visual observation of the seedlings. If the leaf sheath is not purple, then it's an off-type,” Talavera said.

Compared with grow-out testing that usually lasts for a season, initial purity of the seeds may be gauged in just a few days since the purple coloration starts to appear in as early as seedling stage, becomes more pronounced during vegetative stage, and fades as the plant matures.

Bred by PhilRice and UP Los Baños, M20 yields 6.4-11.7t/ha, matures in 111 days after sowing, and is moderately resistant to bacterial leaf blight, yellow stem borer, green leafhopper, and brown planthopper.

Purple coloration is also being introduced to other public hybrids like Mestiso 19. - **REUEL M. MARAMARA**

While pharmaceutical drugs are conveniently taken in when common illnesses strike, indigenous knowledge in three provinces recognizes traditional rice varieties (TRVs) as home remedies.

In the study *Ethnoguided Survey and Collection of Philippine Medicinal TRVs*, 18 varieties were tagged as medicinal in Palawan, North Cotabato, and Zamboanga del Norte against fever, coughs, measles, stomach ache, and diarrhea.

PhilRice's Floper Gershwin Manuel, research lead, reported that in Rizal, Palawan, a community herbalist who is regularly consulted for various illnesses, identified *Munahan*, *Minandiris*, and *Pindinga* TRVs as medicinal.

"The roots of *Munahan* are used to treat urinary tract infection; the grains and leaves of *Minandiris* or *Binaritos* are believed to restore men's virility and treat herpes; while the roots, leaves, and grains of *Pindinga* are supposed to cure allergy, itchiness, and bloating," Manuel explained.

Manuel, an anthropologist, drew attention to the common belief of preparing grains in odd number, seven grains in most cases. In remedying itchiness, for example, a decoction is produced by boiling seven grains. Not so long ago in many regions of the country, the use of boiled "*pitu-pitu*" leaves proliferated.

"This could be because in the Pythagorean era centuries ago, odd numbers were associated with origins of diseases," he said.

According to the senior researcher, locals use rice as medicine because it is readily available within the neighborhood and is much cheaper than synthetic drugs. Moreover, crossing rivers and streams 2-12 times to reach the nearest health center compels them to resort to household remedies before seeking physician's help, if symptoms persist.

In Arakan Valley, North Cotabato, Manobo elders revealed that *Dinorado*, *Bagtok*, and *Sawwi* TRVs are used in treating indigestion and other maladies including those that may have been caused by "supernatural" powers and influences.

To treat indigestion, Manuel said that patients chew several pieces of raw rice grains. However, a community herbalist warned that raw rice cannot be eaten when suffering from other sicknesses.

Rice heals



Dinorado, a special rice known for its pink grains and aroma when cooked, is largely grown in the upland areas of North Cotabato.

In dealing with supernatural or "magic" spells, the community herbalist, who performs rituals and chants incantations, serves the cooked black variety of *Bagtok* to the patient. The white variety of *Sawwi* is eaten to help recover lost strength due to sickness.

In Sergio Osmeña, Zamboanga del Norte, *Magaraya* rice is reputed to treat fever, stomach pains, diarrhea, colds, coughs, measles, body pains, and other complaints.

During field work, Manuel interviewed a mother who told him that her nine children have never been confined in a hospital and that they were only treated with traditional/herbal medicine.

He also said that the municipal doctor is aware of the use of *Magaraya* as medicine, although it is not included in the country's list of traditional medicines.

"The doctor said that patients only go to the health center when their ailments linger for up to seven days. If he asks them what they have taken so far, they just say '*tambal* (herbal) only, *Magaraya*," Floper Manuel recounted.

Manuel added that ethno-botanical studies confirm that certain plants such as TRVs have long played roles in the healthcare system of some communities, providing the benchmark for scientists to explore opportunities that these plant species may have to offer.

Meanwhile, PhilRice food scientist Marissa Romero said that TRVs, which are usually pigmented, are rich in antioxidants such as phenolic compounds, vitamin E derivatives, and γ -oryzanol that are effective free radical scavengers; supposedly medicinal in short.

"There are claims about the medicinal benefits of rice but we have yet to conduct clinical studies to verify these properties," Romero said. - **ALLAN C. BIWANG JR.**

RICE ACROSS



PHILRICE AGUSAN

SHERLYN DAWN TAGLUCOP

Stem borer-resistant rices

Traditional varieties that have stronger resistance against the white stem borer during their reproductive stage are being identified. Researchers are monitoring and observing a total of 75 traditional varieties, some of which were sourced from the Plant Breeding and Biotechnology Division.

Stem borer is one of the major insect pests of rice that can rob up to 50% of its yield. - **ALONA P. TAPE**

Site for hybrid rice production

A 50-ha public hybrid (Mestiso 20) production site at Hagonghong, Buenavista, Quezon was visited April 25 by some researchers to further size up its potential. The *Hagonghong-Bukal* Farmers/Irrigators' Association reportedly reaped a handsome 8.3t/ha during the 2019 dry season, with the support of the DA-RFO 4-A and local government units that provided technical assistance and interventions to ensure good harvest. According to extension worker Nanelle Quinto of Buenavista MLGU, the joint efforts of the farmers and the government have paid off. - **RUBY MOSELLE O. TUMANGUIL**



PHILRICE LOS BAÑOS

RUBY MOSELLE O. TUMANGUIL



PHILRICE MIDSAYAP

MOHAMADSAID B. GANDAWALI

Teaching thru KSL

The latest rice production technologies were promoted through a series of knowledge sharing and learning (KSL) activities in Pigcawayan, North Cotabato.

The KSL episodes showed videos highlighting the challenges and importance of farmers in the agriculture sector. The PhilRice Text Center and *PalayCheck* System were also introduced and explained.

The activities target to influence 300 rice stakeholders in Maguindanao and North Cotabato. - **MOHAMADSAID B. GANDAWALI**

Mechanizing rice straw collection

More than 100 rice farmers and ruminant raisers in Isabela learned the basics of mechanized rice straw collection in the 3rd Rice Straw-Baling Demonstration at PhilRice Isabela, April 30. The activity was part of the DA-BAR-funded project *Development of Sustainable Rice Straw Practices and Technologies for Bioenergy*, which promotes the use of rice straw-baling as an easier way to collect rice straw and its potential use in mushroom growing.

The rice straw-baling initiative also advocates for the prevention of environmental pollution, unsustainable cropping, and increased carbon footprints caused by the open field-burning of rice straw practiced by the majority of Isabela farmers. - **MARITHA M. BALOY**



PHILRICE ISABELA

MARITHA M. BALOY

THE COUNTRY



PHILRICE BICOL

Agri-expo

The station joined the 2nd Bicol Agri-Expo celebration held at the Albay Farmers' Bounty Village, May 6-10, spearheaded by the provincial government of Albay in collaboration with DA-RFO 5. It was one of the highlights of the *Magayon* Festival 2019.

Local government units in Albay, private companies, and DA-attached agencies and bureaus graced the Agri-Expo. It featured agri-fishery and livestock/poultry technologies. It even displayed and sold agri-products, farm machines, and special delicacies of the region. Briefings, seminars, and conferences for farmers and other stakeholders were also conducted.

PhilRice Bicol's One-Stop Information Shop (OSIS) booth was set up to promote rice production technologies and campaigns. - **GILBERT H. MORENTE**

Training rice specialists

The DA-RFO I and the Offices of the Provincial Agriculturists (OPAGs) of the region's four provinces (Ilocos Norte/Sur, La Union, Pangasinan) will conduct a Rice Specialists' Training on Sustainable Rice Production with emphasis on the *PalayCheck* System.

The RFO will finance the training while senior personnel from the OPAGs will serve as facilitators and resource persons.

PhilRice Batac will lead the execution of the planned training in two batches, the first of which starts in July while the second will commence in November. Each batch will accommodate 30 agriculture extension workers (AEW) and local farmer technicians (LFT) from Ilocandia.

The season-long training supports the Rice Competitiveness Enhancement Fund, and is patterned after the ongoing Rice Specialists Training Course in Nueva Ecija. It will equip AEWs

Roaring machines

Rice Engineering and Mechanization Division in partnership with DA-BAR turned over motor-driven brown rice mill to the RiceBIS community in Victorias City, Negros Occidental for performance-testing and evaluation.

Jose Arnel Cordova, RiceBIS Negros focal person, said that the technology will help level off the prices of regular milled and unpolished rices. The Division also gave another village-type brown rice mill to one of the cooperatives here.

On the other hand, PhilMech gifted anew the RiceBIS Negros Agrarian Reform Coop in Murcia with a grain probe moisture meter. The meter determines proper moisture content during the rice milling process. PhilMech earlier provided the Coop a vacuum sealer that it has used over a year now. - **VANESSA A. TINGSON**



PHILRICE NEGROS

and LFTs with the necessary knowledge, attitudes, and skills on sustainable rice production and capacitate them to conduct innovative extension methods in their respective localities. Enhancing the capabilities of AEWs shall improve the effectiveness and efficiency of agricultural extension in the region. - **MARIBEL B. ALUPAY**



PHILRICE BATAC



Reviving the spirit of Bay**ANI**han

► RONAN G. ZAGADO AND KAREN ELOISA T. BARROGA

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With the promulgation of the Rice Trade Liberalization Law, competition has become global and free-for-all. While government assistance in the form of technology, resources, and farmer competence-building plays a crucial role in this competition, the spirits of cooperation and patriotism are equally vital. A timeless Filipino custom that promotes these is Bayanihan.



So why not bring it back?

The *Bayanihan* spirit is what makes Filipinos go out of their way in helping a *kababayan* in need without expecting much in return. It is what naturally comes out of us when a calamity strikes. Similarly, it's the spirit that unites us every time Manny Pacquiao fights or a Filipina vies for the Ms. Universe crown.

And it is precisely what our rice farmers and the rice industry need at this time of globalization.

There is a tall order: to bring down the cost of rice production by 30% (for example, from P12 to P8/kg) and to post an average yield of 6t/ha so that we will not be left behind by other rice-producing Asian countries. While there are government support mechanisms to enable this, the ultimate solution lies among us and in our hands -- to work together as a *bayan* (group/cooperative, community, town, and nation) so that we can produce the *ani* (harvest/yield) and celebrate together during the *anihan* (harvest season), where each one is a *bayani* (hero) especially the farmers. All together, these feats solidify into *Bayanihan*.

Enough of the individualistic behavior and government dole-outs.

Diligence (*Sipag at Pagpupunyagi*)

Bayanihan begins within us. While government aid will be provided to farmers, they must help themselves and not entirely depend on the bureaucracy. There's no better form of help than self-help. As the adage says, God helps those who help themselves. And diligence is key here. According to former PhilRice Executive Director and Academician Dr. Eufemio T. Rasco, out of 365 days in a year, Filipino farmers work for about 110-220 days in growing rice, leaving a "free time" of 145 days. They must work hard and make most of their time productive. They must optimize and put into good use whatever support they receive from the government. Not to mention that they must be resourceful and innovative,

making use of available resources on their farms, such as farm wastes, to create useful materials like biofertilizer.

Cooperation (*Sama-sama at Tulong-tulong*)

While farmers need to help themselves and work diligently, it is much better that they work together as members of a cooperative or an association. Most rice farmers operate individually and on a small scale, thus have become mere price takers. They are tied to the price set by millers and traders. If they are organized and would consolidate their harvests, learn and apply financial, marketing, and enterprise skills, then they can command higher prices and engage in more sustainable business enterprises. Farmers must help and build on each other to achieve higher farm productivity. Many technologies work well and give higher pay-off if applied in bigger tracts of land owing to economies of scale.

Compassion (*Malasakit sa Magsasaka*)

All things said, we must also help our farmers. They literally feed us, yet they struggle to have enough food on their own tables. This is not only their battle, but every Filipino's. We must show our genuine desire and care to help our farmers, the rice industry, and our country. Let's buy their produce especially if we have the power of choice. Offices that provide rice allowance to their staff should purchase from cooperatives. Let us join in spreading information on how they could avail of free services from government to improve their farming. If you belong to a civic organization, find ways to help farming families and communities or convince your brother/sister in the rice trading business to offer a better price. Let's spread positive vibes in the social media about rice, farmers, and farming to awaken support to and lift the morale of our farmers.

We have all these traits naturally running in our blood as Filipinos. Let us help each other. Let us help our farmers at this crucial time! Let us revive the *BayANIhan* spirit for rice-secure Philippines. ■

Helping farmers do business

► ANNA MARIE F. BAUTISTA

While some farmers may look at the world of marketing as unfamiliar ground, farmers of Sta. Ignacia, Tarlac's Hardinero Agriculture Cooperative found that they can tame the trade game and be champions so long as they persevere. Through their participation in the Department of Agriculture's (DA) TienDA Farmers and Fisherfolks' Outlet, they have proven that the best merchants in agriculture are the producers themselves.



CARLO G. DIACUMOS

No traders

Launched in 2017, TienDA is a market linkage scheme conceptualized by Secretary Emmanuel Piñol to provide producers a venue to directly sell their products to consumers at farmgate prices.

"It seeks to eliminate unnecessary layers of traders in the supply chain, thereby allowing farmers and fisherfolks to command fair and reasonable prices for their produce. It also benefits the consumers as they are able to buy fresh and cheaper agri-fishery goods from the outlet," Carolyn Castro, DA marketing specialist explained.

In a setting similar to trade fairs, products sold at TienDA range from raw and processed products of rice, fruits, highland and lowland vegetables, among others.

Every month, the DA invites farmers/ farmers' groups from nearby areas such as Region 3, 4A, 4B, and Cordillera to participate in their regular TienDA, which is usually done every last Thursday and Friday of the month at the DA grounds in Quezon City. Some of their Regional Field Offices (RFOs) also conduct local TienDA's in their areas of operations.

Ready to be agripreneurs

Before joining TienDA, the Hardinero Coop members used to sell directly to farmers at small volumes.

Since their registration in 2016, they were invited by local government units and national agencies to participate in trade fairs. They also catered to customers who walked into their office in Sta. Ignacia to buy milled rice.

"It was challenging for the group. Members had to wait for the coop to sell all the consigned products before they were paid. Sometimes, we could not accommodate everyone who came to us because we do not have enough capital," coop chair James Tejada Ocampo narrated.

They also struggled in maintaining the quality of rice that they sold as some farmers do not have the capacity to properly dry their produce.

Through the assistance that they received from the DA, Department of Agrarian Reform, and the Bureau of Plant Industry, Hardinero members eventually improved their farming strategies. The group was also a recipient of various technology

interventions, which helped them reduce the cost of their farm expenses. Yet, the most remarkable for Ocampo was the market opportunity that presented itself to them.

In 2018, just as the group was storing a huge volume of milled rice supply, the DA-RFO 3 endorsed it to join in the TienDA outlet.

When they began selling there, the coop's representatives needed not to adjust because they have had similar experiences with consumers early on. However, they sought assistance in transporting their products, to which the DA-RFO 3 kindly responded.

"The DA-RFOs are providing necessary assistance to participating farmers/ groups until they are able to promote their products on their own," Castro noted.

At present, Hardinero is among the regular producer-participants in TienDA. Ocampo confirmed that they can now consolidate and sell 200-400 sacks of milled rice at 25kg/sack every month at the said outlet.

"We buy rice from farmers and members based on the prevailing market price, plus a P0.10/kg incentive for members. During production, they also pay lower prices for our regular services offered, such as rental of farm tractor, dryer, and harvester," Ocampo disclosed.

At TienDA, the coop sells milled rice at P875/sack (25kg/sack) or P35/kg, lower than the current market price of P38-39/kg.

Closing the gaps

Other farmer-groups are also participating in TienDA-related activities in the country.

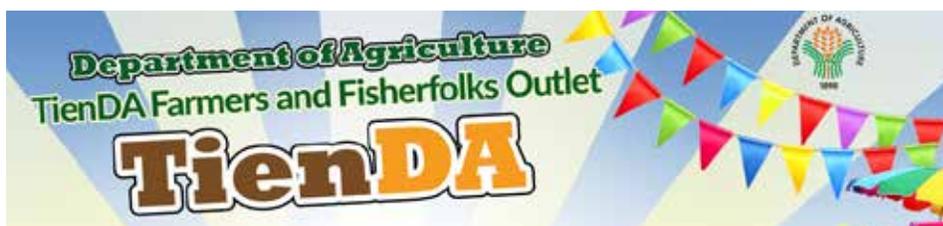
"This is one of the advocacies of the DA to ensure available and affordable food for Filipinos, and for farmers to have a sustainable market opportunity," Castro said.

For the Hardinero coop, challenges did not remain in their hands. They have acquired their own vehicle to transport their goods to the market, and their group is also expanding.

"The farm interventions have helped our members reduce their expenses and the TienDA washed our marketing problems away. We have also created more jobs for other people through our added services in the coop, and we are happy to help our clients have access to affordable, quality rice," Ocampo elaborated.

Today, they are focused on maintaining their strength as more farmers show interest in joining them. Recently, they welcomed 27 new members of the coop. They are also aiming to push for better quality of their products so as not to waste the trust that their customers have bestowed on them.

"As farmers, we now see the fruits of our labor and we are enjoying them. I learned that a farmer is not only meant to stay in the farm, but they can also venture into agribusiness," the 42-year-old chairperson realized. ■



In the TienDA outlets, farmers and fishers sell their produce such as rice, vegetables, and fish to consumers at affordable prices.



MGI FILE PHOTO

MGI's direct-to-farm program has started to expand its reach to rice farmers. Running since 2015, it has benefitted mainly vegetable farmers, such as the growers from Laguna.

How a Filipino company became a farmer's good keeper

► CHARISMA LOVE B. GADO-GONZALES

Mysticism or fact, we are taught that we are connected in the rhythm of life; that consciously or unconsciously, our actions affect our fellows.

In the 2019 dry season, traders bought fresh *palay* at a low farmgate price of P13/kg. Through a group in the social media, disappointed farmers were threatening to plant rice only for their own consumption, forget about commercial cultivation. A farmer in Nueva Ecija even sold her hectare of land after giving up on rice farming.

Meanwhile, Tatay Isidro, a vegetable farmer in Laguna, is contented with his life believing that farming will continue to sustain his family needs. But this was not his experience before his participation in the direct-to-farm program of Max's Group Inc. (MGI) that operates a chain of restaurants nationwide.

"In the past, part of our harvests were wasted as we had difficulty marketing our products. When bought by traders, they were bargained for a give-away price! Once, they bought my spring onions at P15/kg, against my production cost of P57. But through the help of MGI's program, some farmers are now better off," the 40-year-old Isidro said.



Tinawon rice is now among the special menu items of Max's Restaurant.

“MGI has not stopped looking for more ways to engage local farmers. From vegetables, rice is a logical progression as it is an important menu item for the company.”

Cynthia R. Villanueva
Supply Chain Management
Procurement Director, MGI

Since 2015, MGI had been sourcing agricultural products directly from small-scale farmers and cooperatives under its Corporate Sustainability, Synergies, and Relationships program to instill pride in products, support local agriculture, and bring fresh and quality food to the customers.

Supply Chain Management Procurement Director Cynthia R. Villanueva said that MGI have so far sourced over 1,000t of produce directly from farmers, cutting out layers in the supply chain, which “resulted in efficiencies for the company and increased profits for the farmer-cooperatives”.

“This program complements the company’s sustainable supply chain objective – secured supply, good pricing, and fresh and quality ingredients. [The group’s] efforts to develop local agricultural partnerships resulted in a shift in the company’s buying behavior – with over 40% of MGI’s unprocessed vegetable requirements now coming directly from farmers instead of traders-consolidators,” Villanueva summed it up.

Tatay Isidro, who is sending his three children to school, thanks to his farm income, is just one of the MGI’s

about 250 farmer-suppliers who are also cooperative members. Villanueva said MGI chooses farmer-suppliers thru referrals from the Department of Agriculture, DOST-PCAARRD, and the company’s own sourcing parameters.

“The farmer-groups are treated fairly like other suppliers and must comply with quality parameters set by the company, and commit to sustained supply and fair pricing,” she advised.

Farmer cooperatives in Benguet, Nueva Ecija, Laguna, and Leyte are not only benefitting from having the Filipino chain of restaurants as regular market of their produce. They are also provided with workshops and training programs on entrepreneurship, sustainability, and farming resilience by MGI’s partners including a non-government organization, a state university, and private seed companies.

Amidst the virtually unbridled entry of imported agricultural products, MGI chooses the local farmers’ produce because of its commitment to nation-building and to uplifting Filipino lives.

“MGI has not stopped looking for more ways to engage local farmers. From

vegetables, rice is a logical progression as it is an important menu item for the company. Exploratory talks have been conducted on the feasibility of directly sourcing rice from farmer cooperatives,” Villanueva said.

With this potential farmer project, Villanueva said that farmers would have a better return on their labor and equity than just selling *palay* to traders or their agents. On MGI’s part, she said that the company will be able to provide traceable and consistent quality supply of rice for its restaurants. Already, the company had introduced special menu items celebrating local produce, like the heirloom rice grown in the Cordilleras called *Tinawon*, in Max’s Restaurant’s flavored rice dish.

Unlike many rice farmers who swallow the low farmgate prices, Tatay Isidro no longer worries about his produce being rotten or bought at a throw-away price.

“More importantly, sometimes we can now buy fried chicken, burger, and cake; foods we used to only watch on TV commercials,” he said.

Tatay Isidro is satisfied with his life; a contentment brought about by his produce’s good keepers. ■

Ricescapes

► PHOTO BY: JAYSON C. BERTO

A well-leveled field assures you of water and nutrient efficiency, and pest regulation. It can prevent 5% or 4cav yield reduction.

*80cav/ha national average rice yield

Steps to achieve a well-leveled field:

1. Clean and repair dikes and ditches.
2. Plow or rotovate field 21-30 days before planting.
3. Harrow field every seven days after plowing. The first harrowing is along plowing pattern; the second or initial leveling is crosswise.
4. Level the field with a wooden plank or tiller-attached leveler. The field must be filled with 5cm water depth for ease of leveling.
5. For direct wet-seeded rice, construct small canals surrounding the field near the dikes and at the middle of the field.



LGU's champion rice farmers

► ALLAN C. BIWANG JR.

Prices of fresh palay have fallen, and many farmers are disheartened. To their rescue, two local government units (LGU) in the country are going the extra mile to help rice farmers in their areas.



Six pesos more

A month after the February 2019 enactment of the Rice Trade Liberalization Law, the provincial government of Isabela, with an aim to cushion farmers from the painful impacts of the law, intensified its partnership with the National Food Authority (NFA) to raise the buying price of *palay* from P20.40 to P26.40. Farmers pocketed the P6.00 incentive if they sold their produce to NFA, clean and dry.

Dr. Angelo Naui, OIC-provincial agriculturist, said that hauling trucks were dispatched to far-flung villages to collect the produce of farmers. From March to June, the charitable initiative served 1,379 farmers with a total of 4.3 million kg (86,000 cav) of dried palay picked up and sold to NFA.

According to Naui, the move was pursued as buying price of fresh *palay* was reportedly at P14/kg in March 2019, as against P22/kg during the same period in 2018.

The P50 processing fee of an NFA passbook for each farmer was also shouldered by the provincial government. The program prioritized small-farm holders cultivating a maximum of one hectare of land. The income of each farmer grew by P24,000/ha, the provincial LGU calculated. (PHOTOS FROM OPAG ISABELA)





50/50 scheme

The local government unit of San Jose, Occidental Mindoro is presently subsidizing the procurement of certified seeds to help farmers survive the influx of imported rice that has dampened the buying price of local *palay*.

For 2019 wet season, P6.8 million was sourced out from the LGU's core fund to purchase and distribute 8,990 bags of seeds to 3,741 farmers.

OIC-Municipal Agriculturist Romel Calingasan said that farmers only pay P760 for every 40kg of certified seeds, or 50% less than the retail price of P1,520.

The LGU-sponsored Crop Enhancement Program started in 2011 when the DA's Ginintuang Masaganang Ani centerpiece program ended.

"Farmers at that time were already used to sowing high-quality seeds so we sustained their practice with the 50/50 scheme to accommodate more beneficiaries," Calingasan explained.

Calingasan remembers that the average buying price of dry and clean *palay* slightly fell in the 2019 dry season from P20 to P19/kg in Occidental Mindoro. He said that they are monitoring the possible buying prices this wet season as their area planted with inbred rice doubles during this period.

"We hope to influence other LGUs to implement similar or better programs for rice farmers to help them compete," he expressed optimism. (PHOTOS FROM OMAG SAN JOSE, OCCIDENTAL MINDORO)

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The LGUs of Isabela and San Jose have taken audacious actions beyond their functions. For Calingasan and Naui, now is the best time to rally behind our rice farmers. After all, if the initiative ripples, more farmers could benefit from it.

Prior to the passage of the Rice Trade Liberalization Law, certain LGUs like the Science City of Muñoz had been subsidizing hybrid rice seeds particularly during the dry season planting. The widespread use of hybrid rice in Nueva Ecija helps the province maintain its reputation as the country's rice granary. ■

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Los Baños cafe satisfies both diners & farmers

► MARY GRACE M. NIDOY

It is Thursday and Cherrys Abrigo is on her way to buy rice from the Dumagat farmers in Antipolo City, Rizal. A few years ago, the now 3-hour drive from her hometown Los Baños, Laguna leading to the community was anything but smooth.

"This was muddy back then. I had to ride a motorcycle and pay P250 every travel," Abrigo said as she pointed to the concreted road.

Her pick-up truck reached a valley set at the lower foot of the Sierra Madre mountain. They call it Sitio San Ysiro, and there, a farmer had been waiting for her arrival.

A few days ago, Joelito "Leroy" Vertudez descended from the mountain to the main road, where mobile telephone signal is available, to send a text message to Abrigo informing her that the community's rice is ready to sell.

Of calling and empowerment

Abrigo started her shoulder-to-shoulder partnership with the indigenous farmers in Daraitan, Tanay, Rizal through a UNDP-funded project.

The chemical engineering graduate from UP Los Baños attributes her calling for helping the marginalized to her college organization called *Ugnayan ng Pahinungod*.

This calling started occupying her inner mind after working for only three years in the corporate world. Armed with her passion and savings, she went back volunteering fulltime, this time for NGOs. With countless

programs and band-aid interventions, she realized the crux of the matter.

"I began to ask why real change was not materializing in our chosen community so that's when I learned that they have become dependent on us. I realized we were doing more harm than good," she confessed.

Abrigo, 34, wanted a more sustainable approach but her savings were not enough. She then proposed a one-year organic farming project worth P1.2 million to UNDP that involved a closed-loop intervention - from training to marketing. Her team began with 12 farmers chosen by the chieftains of the village.

"They wanted me to choose the beneficiaries, but I insisted that they should decide as I wanted to empower them," she pointed out.

Her college degree came in handy in simplifying technical terms in organic farming when she was educating the farmers. It also helped them produce value-adding products. For Abrigo, the marketing aspect of her project helped in empowering the farmers.

"I told them that since they know how difficult it is to come up with their produce, it is only but proper that they decide the price of their products. That's when we began fair trade," she said.

Abrigo contacted her friends and other network points to sell the farmers' produce. These included Good Food Community, an organization she used to work with that helped her connect the farmers to Healthy Options, one of the largest stores of all-natural products in the country.

The project lasted for a year (December 2016-2017) but the farmers in Daraitan wanted to continue what they had started.

"I wanted to maintain our momentum, but I had to secure a market because anytime, our clients can just stop ordering from the farmers," Abrigo disclosed.

Because of this, her café and zero-waste store Sierreza was born.

To date, Abrigo has established partnerships with three communities: Daraitan; Sitio San Ysiro; and General Nakar in Quezon.

Sitio San Ysiro

Leroy Vertudez emerged from one of the houses in the village as he saw Abrigo. The two walked to one of the houses situated near the end of the village.

The house belongs to Rolando "Rolly" Vertudez, Leroy's uncle and one of Abrigo's main suppliers of rice for her café.

The farmers plant mostly pigmented rice such as red, black, and glutinous black. Farmers name the rices *bakyaw*, *inengkanto*, and *iniput-ibon*. They sell these to Abrigo for P60-75/kg or P3,000-3,500/cav.

On Abrigo's visit, she was picking up garlic, mangoes, and 5cav of ecologically produced white rice sold for P65/kg or P3,250/cav. These came from 20 farmers in the upper areas of Sierra Madre and were consolidated by Leroy a few days before Abrigo came.

"Every time we harvest, we contact Ma'am Che first before anyone," Leroy disclosed.

"That's because I allow them to charge a markup price," Abrigo said in jest.

But for the Dumagat farmers, she is more than a customer, and rightfully so, as she helped empower the community.

"She taught us how to lower our production cost, veer away from chemicals through organic farming, and practice quality control regimen," Tatay Rolly enumerated her good points.

The community's partnership with Abrigo's Sierreza has also helped him send his seven children to school. From his last harvest of 80cav of red and black rice, he bought a motorcycle for his son who also assists him in the farm. This was made possible when Abrigo posted a photo of him and his harvest on Sierreza's Facebook Page. The followers and customers then responded and placed their orders through their comments. A photo of Rolly with the motorcycle is now posted on the same page.

The reality in the nearby market is different.

"There, we can't control the price as it is dictated by the 'market master.' We also need to pay for transportation cost," Tatay Rolly, 51, lamented.

With Abrigo, the farmers need not pay the necessary expenses since she is willing to go through the long-hour drive and pick up the supply personally.

While the farmers produce rice on a small-scale, Abrigo emphasized that "it is not all about the volume but also the right price."

The café

The Sierreza café and zero-waste store opened on August 8, 2018.

The pigmented and organic rice bought directly by Abrigo from the indigenous farmers are sold in the store and cooked for the café's rice plate series, such as mushroom sisig, tempura, and *chamorado*. The café, located a few blocks away from UP Los Baños, does not use synthetic MSG to camouflage the natural flavors of the food. Abrigo exerts efforts to source out all the ingredients locally.

"I want our customers to appreciate the food; that it's organic and produced by IP farmers and we practice fair trade," she said with conviction.

To inculcate her advocacy, Abrigo and her staff would visit the farmers and immerse themselves in the community. She believes that if she can bring across her advocacy to the farmers, she too, can do the same to her café staff.

"You have to be consistent in everything that you do."

With this concept, Abrigo is certain that "there is no competition." In fact, if there are those who want to copy her business, she thinks it is an advantage because her advocacy will be replicated as well.

"By putting up Sierreza, I hope a lot of people would adopt our framework to support more farming communities."

Lifetime investment

Before Abrigo left for Antipolo, she was busy preparing for the opening of a branch store along Maginhawa Street in Quezon City.

It has been almost a year since she opened Sierreza and never thought that a branch would pop up sooner than she expected.

While the café's popularity keeps on growing and the Los Baños community continues to support her cause, she too, remains committed.

"I never spent a peso on advertising. But we invested on stories. Every time there is an interested customer, we tell how we started," Abrigo said.

Before long, it is Thursday again. Another 3-hour drive from Los Baños to the farming communities.

"I don't get tired of telling our story because our farmers never get tired." Cherrys Abrigo speaks. ■



Abrigo (left) visits Sitio San Ysiro in Antipolo City, Rizal to buy rice directly from farmer Rolando Vertudez (middle) and Joelito Vertudez.



Abrigo (first from R) with the Dumagat farmers from Tanay, Rizal.



MAKING FARMERS GO GLOBAL

► **WRITTEN BY: DONNA CRIS P. CORPUZ**
ILLUSTRATED BY: HANNAH MAE E. TOLENTINO

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Aside from highly skilled professionals and dependable workers, the Philippines exports food and agricultural products, garments, and many more.

Let's take a close look at Bios Dynamis Don Bosco Multi-Purpose Cooperative (DBMPC) in M'lang, North Cotabato that earns through organic agriculture products. Don Bosco specializes in producing certified organic rice because it believes it is safer to eat and it does not require huge production costs. Their primary products are organic black, red, and brown rices.

"We have been exporting rice for 6 years already to countries such as Germany (2013), Hong Kong (2015), Switzerland (2015), USA (2015), Italy (2016), and Dubai (2017). For now, we are prioritizing the local market," said Cesar O. Gran, DBMPC's Grains Center Supervisor.

According to Gran, their cooperative anchors its goals on four main areas: to provide safe and healthy food options to consumers (People); to rally against the use of harmful fertilizers, pesticides, herbicides, and other synthetic chemicals that pose threats to the environment (Planet); to gain consistent and sustainable income (Profit); and most importantly, to help raise farmers' standard of living (Peace).

He also detailed the processes that their cooperative and its products go through to export rice.

Local enterprises consolidate their export products by:

1

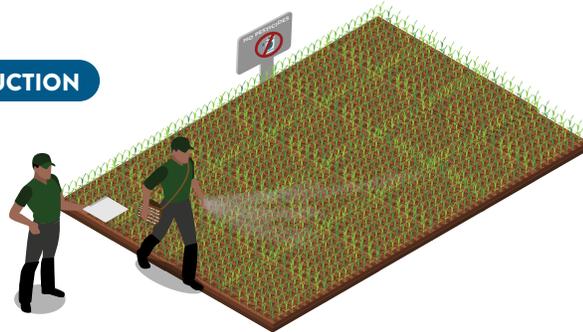
PLANNING



- Brainstorming on product strategies
- Negotiations with customers regarding product specifications
- Setting production schedules and timelines
- Preparing documents
- Organizing the logistics, equipment, supply, and workforce

2

PRODUCTION

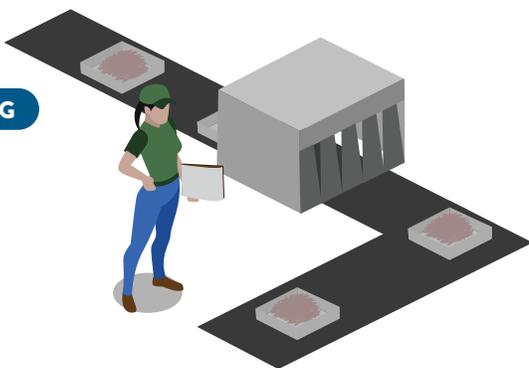


- Checking the availability and condition of logistics, equipment, supply, and personnel
- Ensuring the facilities and production activities from seed selection to harvest pass certain internationally set standards

*Since their products are organic, there must be no hint of synthetic fertilizers and chemicals inside their identified area/facilities.

3

PROCESSING

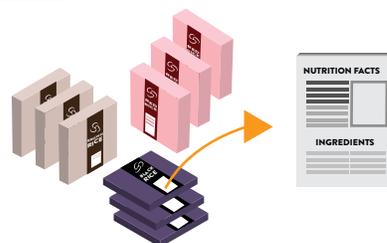


- Checking if the drying pavements and rice mills are clean
- Implementing extreme quality control from harvest to postharvest

*Rice products have to go through the metal detector before packing.

4

MARKETING



- Deciding on the volume, quantity, and containers of the products
- Properly placing the label

*The label must contain the product's basic information, company's or cooperative's logo, seals of the certifying bodies.

5

SHIPPING



- Selection of the products for export
- Setting the shipping schedule
- Securing the products from contamination
- Securing documents

The prize for cultivating heirloom rice

► HANAH HAZEL MAVI B. MANALO

Pasil, Kalinga is a 3-hour drive from Tabuk City, the provincial capital. It has a long, winding, unpaved, and one-lane narrow road hemmed in by landslides that makes its users get a scary glimpse of the steep cliffs. It is in the mountains of Pasil where Chong-ak, a red heirloom rice, is also widely grown.

"From the road, we have to climb the mountain for two hours just to reach our farms. But we never get tired of cultivating heirloom rice because we are reliving our tradition. That's more important to us," emoted Balbina T. Bakidan, 57, of Pasil.



REUEL M. MABAYARA

Higher value

Belonging to specialty rice, heirloom rice like *Chong-ak*, is handed down from several generations through family descendants and grown by small landholders in their ancestral farms. These rices have exceptional cooking quality, color, texture, aroma, flavor, and nutritional value.

Food scientist Dr. Marissa Romero of PhilRice said that pigmented rice like *Chong-ak*, is a rich source of antioxidants, including anthocyanins, which are colors embedded in cereals, fruits, and vegetables that act as antioxidant. Antioxidants protect the body from damage caused by free radicals that are linked to high incidence of cardiovascular diseases, cancer, and diabetes.

Yet, despite its exceptional eating quality and health benefits, *Chong-ak* had been sold at a very low price. But even if it didn't earn much, *Chong-ak* still thrives in the terraces of Kalinga.

"For more than two decades, I was selling my produce at P20/kg. We ate what wasn't bought," reported Arden P. Bomon-as, 57, of Pasil.

But through the project *Raising productivity and enriching the legacy of heirloom or traditional rice through empowering communities in unfavorable rice-based ecosystems*, heirloom rice farmers realized that there is high demand for these varieties and they command higher prices in both the domestic and international markets, making a good income out of it.

According to Dr. Glenn Y. Ilar, program lead of the PhilRice Rice Seeds Systems, during the initial implementation of the project by the DA-Cordillera Administrative Region (DA-CAR), IRRI, and PhilRice in 2014, the Kalinga Rice Terraces Farmers Agricultural Cooperative (KRTFAC) was one of the coops formed and registered in 2016. Now, the KRTFAC has 169 members with an area of 75.9ha and heirloom rice production of 256t.

"The project learned that we had individually sold our produce at a very low price - P20-P30/kg. DA-CAR and IRRI helped us organize ourselves into a coop and sell our produce at a higher price - P60/kg," said Jane-ai B. Lomas-e, 56, chairperson of KRTFAC's board of directors.



Arden Bomon-as, Rowena Sawil, Wendy Sambat, and Balbina Bakidan (from L-R) are grateful for the 30% increase in their income after selling their produce directly to their coop.

Ilar also said the Kalinga heirloom rice farmers through their coop were trained for higher productivity in a farmer field school, linked to local and international markets, and provided with machines, such as tractor, dryer, thresher, rice mill, and vacuum packing machine. They were also provided with a warehouse and community seed bank. Their fields also benefited from the restoration activities of DA. Currently, DA is helping them market their produce.

Lomas-e told us, "We usually participate in trade fairs in Manila and Baguio City, supply heirloom rices to serve as tokens to DA and other government offices, and sell our produce in the Baguio *Pasalubong* Center and tourism offices."

"We plan to increase our production as coop because our produce is not enough to cater to the needs for heirloom rices of the government offices," said 60-year-old KRTFAC manager Rowena D. Sawil.

To strengthen their coop, Sawil also hopes that they would receive a certification this year that their produce is organically grown.

More rewards

"We start preparing our land in November and harvest in June or July. We don't mind spending about nine months to produce *Chong-ak*. We will remain faithful in cultivating it. It preserves our identity," said Wendy G. Sambat, 42, of Pasil.

And joining the coop gives them more reasons to continue cultivating heirloom rices.

"Before joining our coop, there were times that we only consumed our produce as there were no regular buyers," recalled Sambat, KRTFAC's secretary and a farmer for 10 years.

Sambat said, "The coop pays us right away. I gained a net income of P7,800." From her 850m² area, Sambat harvested 380kg of *Chong-ak* at a production cost of P15,000 and sold it to the coop. She said with a smile, "I wouldn't worry about going home empty-handed as the coop is an instant and constant buyer of my produce. I felt financially secured."

On the other hand, Rowena Sawil used to lose more than P4,000 when she was selling her produce on her own at P30/kg. Last year, she scooped an income of P4,520 after selling it to their coop. She harvested 292kg of *Chong-ak* from her 800m² at a production cost of P13,000.

"The high price of heirloom rice and the benefits that we enjoy for being part of a coop helped us send our children to school and gave us the chance to buy what we want and need," Sawil, a farmer for 16 years, said.

Together with Sambat and Sawil, Bakidan who's been farming for 35 years now didn't regret joining their coop. She was immediately paid in cash after selling to their coop her 300kg of *Chong-ak* from her 800m² area. She earned a net income of P5,000 at a production cost of P13,000.

This increase in the price of heirloom rice has helped finance her children in school – she has a medical technologist and biologist-teacher, and others taking up engineering and law courses.

"Blessings such as these are worth sharing so we encourage our fellow heirloom rice farmers in Kalinga to also join our coop to earn more while preserving our culture and sharing a part of us," Balbina Bakidan concluded. ■

PARTNERS IN THE FIELD

Why not buy from local farmer groups?

► ELSIE E. REYES



RFAC officials

More restaurants, malls, grocery stores, hotels, and other institutional buyers are finding it handy to source out rice and other food items from local farmer groups. Aside from the patriotic pressure of buying local, there is wisdom in doing so because structurally, these farmer groups have the potential of providing both the quality and quantity demanded.

This budding story of the Rayuray Farmers Agriculture Cooperative (RFAC) in Batac City, Ilocos Norte, while still far from its climax, shows the first steps to realizing such potential. RFAC, composed of 59 members, has been a part of the PhilRice-led multi-agency program called Rice Business Innovations System Community (RiceBIS) since 2017. RiceBIS aims to organize rice farmers and link them to the market.

In 2017, their members were trained on yield-increasing and cost-reducing rice production strategies and in September last year, RFAC finally registered as a cooperative. They are currently marketing four products: dried *palay*, milled rice, brown rice, and onion pickles. In dry season 2019, they managed to sell 5,800kg of dried *palay* to NFA at P21/kg. They also applied and got qualified to become an accredited NFA supplier. Their linkage with NFA also helped the group to avail of a rotovator grant from DA-RFO 1.

Except for dried *palay*, their products attract the spotlight through trade fairs, community retails, and a public market kiosk, which opened in April this year. One of the major exposures they had is the monthly Producers to Consumers (P2C) trade fair and exhibit in Quezon Memorial Circle, Quezon City. Through this, they are starting to gain momentum and recognition from the locals. While they have yet to reach the apex of being an organized group, RFAC certainly has promising initial linkages and market exposures to bank on.



The Rayuray Farmers Agriculture Cooperative kiosk in the Batac City public market, which was inaugurated in April 2019, features produce of local farmers such as vegetables, brown rice, and pickled onions, among others.

Expediting quality production

Since farmers are organized by leaders/facilitators, they are motivated to produce quality products; otherwise, their group's reputation will be smeared. Structurally, it is also more convenient for bulk buyers to deal with a handful of people like farmer group facilitators and agree with them on quality standards. Those quality demands and expectations can then be relayed by the facilitators to the members before planting.

The same is true with RFAC. The group's manager Guillermo "Guilly" Quemquem told us that one lesson they learned from marketing to NFA is the importance of influencing their members in terms of production practices, especially on the rice variety planted. He said that if majority of their members would plant the same and good-quality variety, they could get better market prices. That is why Guilly entreats the group to be united in that matter.

Meeting the quantity demanded

Combining this discipline to produce good-quality products with a multitude of members would complete the recipe of increasing farmers' income and improving agricultural standards in the country. As a young group, RFAC is still grappling to master the quantity aspect of marketing.

Wet season in 2018, RFAC managed to sell almost 30 tons of *palay* to different traders, though not through the more economic one-time consolidated buying and selling mode owing to small monetary capital. What they did instead was to buy and sell 2-60 bags of *palay* daily for almost a month, depending on the available rolling capital and *palay* supply.

With more operations in their growing enterprises, the group shifted to a consolidated mode of *palay* trading to NFA this dry season. Through this, they cornered a higher and more stable price, Guilly confirmed. However, financial capital still took its toll on them. RFAC chairperson Ruthbell Pammit told us that they could have sold more *palay* to NFA if they had bigger capital. Even though the members managed to produce 40 tons of *palay*, the coop could only afford to buy more or less 10 tons from them, four tons of which were for the brown rice enterprise. But when given better access to opportunities like capital and more members joining, local groups like RFAC could earn a heftier income because of economies of scale - the more units sold, the lower the cost of production, hence, the bigger the net income.

Hurdling both quantity and quality

Organized farmers' potentials in providing both quality and quantity are well-

discussed in books and other scholarly publications. These principles have also transcended to success stories of some cooperatives in the Philippines, but they tend to be sparse.

As starters, RFAC members know that they will still walk a long way with their linkages and government partners in preparing the social infrastructure they need. Local business owners can also help see more groups like RFAC transform into more progressive and dependable suppliers.

For instance, local grocery stores, restaurants, canteens, among others, can partner with coops or farmers' groups in their locality and fairly deal with them as suppliers. With regular demand from bulk buyers, these local groups will have better chances of flourishing and surviving the initial hurdles like the ones facing RFAC. So the next time people affiliated to such institutions conceptualize their corporate social responsibility thrusts, for example, they might consider working with these groups knowing its prospective impacts.

When the market has become more viable for the existence of sustainable local groups, soon, buyers might not have to choose anymore between quality and quantity as both can already be carried by local farmer groups. ■

RICEbusiness makes profit

► CHRISTINA A. FREDILES

Among the 500 documented rice varieties today, the three nationally recommended – NSIC Rc 222 (Tubigan 18), Rc 216 (Tubigan 17), and Rc 160 (Tubigan 14) – are exceptionally different for one farmer and one seed grower in San Jose, Occidental Mindoro. What separates these varieties from the rest? They are high-yielding and taste good.

Combo preferences

Farmer Krenz Michael Saligumba, 26, has tried and tested the three varieties and he prefers Rc 216 and Rc 160. He runs after varieties that bring in more profit. For him, farming is a business. Hence, he chooses varieties that are in demand in the market, high-yielding, and suitable to his local setting.

Saligumba has been managing his family's 6-ha farm since 2015. According to him, rice consumers prefer soft, steamy, and fluffy white rice.

"Rc 216 and Rc 160 are the answers to the demand of consumers for good taste while Rc 222 brings in more yield," Saligumba said.

For him, this rice combo is a "win-win" strategy for farmers to earn more.

When Rc 222 started making a buzz owing to its hybrid-like yielding abilities, Saligumba tested it in his 600m² farm at a rate of 2kg. He then harvested six sacks at 60kg each, which can be grossly converted into 6t/ha.



NSIC Rc 216 and Rc 160 are the answers to the demand of consumers for good taste while Rc 222 brings in more yield.

Krenz Michael Saligumba

ALLAN C. BIWANG JR.

"I'm impressed with its yield potential and resistance to some pests but it is not as soft and as delicious compared with other varieties," Saligumba said. To earn from Rc 222, he sells its seeds to other farmers or traders.

IRRI bred and released Rc 222 in 2010. It averages 6.1t/ha, up to 10t/ha. It is moderately resistant to blast, bacterial leaf blight (BLB), tungro, brown plant hoppers (BPH), and green leafhoppers (GLH). Thelma Padolina, PhilRice research fellow, said Rc 222 can be planted both in irrigated and rainfed conditions.

"It also moderately tolerates drought and salinity," the fellow said.

Soft white rice

Rc 216 and Rc 160 are Saligumba's bets for good taste. Before the harvesting season, buyers go to him to reserve his produce. He sells them as milled rice at P60-70/kg.

Released in 2009, Rc 216 produces 6-9.7t/ha and is moderately resistant to BPH, GLH, and stem borer. When cooked, it is medium soft.

"Rc 216 resulted from the cross breeding of PJ7 and Matatag 1. PJ7 is a widely adapted variety, early-maturing, has excellent milling recovery, and resistant to white stem borer in the irrigated lowland ecosystem. The only downside is, it's highly shattering," Padolina admitted.

To solve the shattering issues, PJ7 was crossed with Matatag 1.

Like Rc 216, Rc 160 commands good price from traders who buy it at P1/kg higher than other varieties because of its high milling and head rice recoveries. Rc 160 grains are long and slender, tender, and delicious, Saligumba promised.

"Rc 160 has heavy grains that means better yield and income for me," he added.

It averages 5.6t/ha, up to 8.2t/ha. It matures in 107 days after direct seeding; in 122 days if transplanted. It moderately tolerates blast, BLB, and GLH.

Padolina warns farmers not to grow the variety in tungro-stricken areas where it is susceptible.



CHRISTINA A. FREDILES

Maria Lim Lañada (R) pays the NSQCS in San Jose for seed testing. Lañada sells certified seeds of Rc 216, a PhilRice-bred variety with an average yield of 6t/ha.

Let's do arithmetic

Maria Lim Lañada, 56, is a San Jose seed grower since 2003. She points out that the demand for certified seeds (CS) of Rc 216 in Mindoro is high. In a hectare, Lañada's yield has reached 120 sacks (6,000kg). Each 40kg-sack of CS is sold at P1,520 that rakes in P228,000 gross income. At P60,000 production cost, she earns a net income of P168,000.

Meanwhile, Saligumba sells his Rc 216 as commercial rice and half of it as good seeds.

"If I had a storage area, I could have obtained 91 sacks of milled rice and sell it each at P2,000, equivalent to P182,000," Saligumba computed.

With P50,000 production cost, his net income could have been P118,400, which is one of his goals this year. For now, he's happy and contented pocketing P90,000 as his net income from both polished rice and seeds.

Strategies

To ensure quality of seeds, seed grower Lañada uses *madre de cacao* to shoo away weevils. She arranges the fresh leaves beneath the wooden palettes and between the sacks of her seeds. She also sprinkles 1kg of grounded black pepper or *paminta* in her bodega that rats abhor.

How often do seed inspectors visit her? At least three times: after transplanting, flowering stage, and seven days before harvesting.

"It's important to rogue your rice during pre-flowering, flowering, and before harvest," Lañada preached. According to her, roguing or removal of undesirable off-type plants helps maintain varietal purity.

Saligumba, on the other hand, advised farmers to prepare the land before the water comes to their farms.

"My farm is rotovated dry so when the water arrives, I immediately harrow it and mix it with organic fertilizer," Saligumba told us.

He said the practice ensures thorough decomposition of plant residues, reduction of pests, weeds, and water loss, efficient nutrient uptake, uniform water distribution, and crop maturity.

"There are other high-yielding, good-tasting, and pest-resistant varieties other than the three nationally recommended rices, but we must choose varieties that are suitable to our environments, resistant to pests and diseases, and in-demand in the market," Saligumba reiterated.

With the right choice of rice variety and proper crop management, rice is a good business after all. ■

VOXPOP

* Amid tariffication, how can you help the rice farmers in your own way?

COMPILED BY ALLAN C. BIWANG JR. &
FREDIERICK M. SALUDEZ

*Crowdsourced through PhilRice Facebook Page
and Text Center

Fernando M. Dela Peña, 39 **Fire fighter/Farmer, Surigao del Norte**

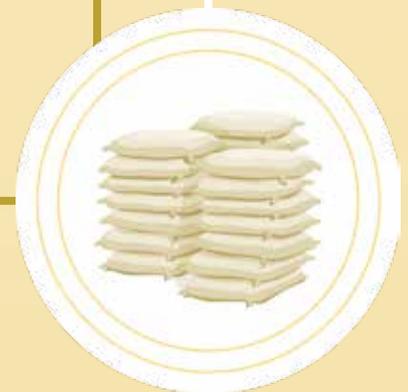
We can encourage our farmers to plant traditional rice varieties or embrace organic rice farming. In our place, farmers get the same yield even without fertilizer and pesticides. This way, we will have lesser input cost and rice will be safer for consumption.

Ronnie G. Lopez, 49 **Farmer, Bataan**

We encourage neighboring farmers to reduce the use of commercial pesticides and fertilizers. We promote the utilization of compost and hybrid or certified seeds to get higher yield. This may not be the permanent solution to the low buying price of *palay*, but we can increase our yield to slightly recover from losses.

Zodemil Jose T. Caga, 56 **Seed grower, Agusan Del Norte**

Let us teach our co-farmers how to reduce cost and get higher yield. Our government must extend help to rice farmers by providing high-quality seeds.





Milagros Artus, 57
Farmer, Bulacan

In our place, we encourage farmers to allot 500m² for vegetable production as this can provide additional income.



Marjorie T. Repol, 23
Government employee, General Santos City

I am thinking of an online campaign through social media that provides awareness to the real status of rice supply in our country and encourage consumers to buy freshly harvested rice from our local farmers.

Janet Pablo, 55
College dean, Benguet

At the academe, we continuously accept invitations from farmers if they need technical expert services: training, monitoring, among others. We also conduct research with them as research collaborators.



Adelaida R. Pulma, 60
AEW, Leyte

Support for buying price of *palay* must be intensified by our government to stop the wrong practices of traders and millers.

Lloyd Jason Andiano, 33
Farmer, North Cotabato

As a knowledgeable farmer, I help link my co-farmers to NFA by initiating the collection of their harvest and deliver it to get the incentive. With the current low buying price, it's the right time to sell as one.



Jayson Ragay, 32
Farmer, Quezon

Let us buy our local produce at a reasonable price. I see this as one of the keys to protect our rice farmers from imported rice.

Joey G. Villanosa, 60
Agriculturist, Zamboanga del Sur

Urge our farmers to establish their own cooperatives to become eligible for farm machines. To avoid the selfish scheme of abusive traders, rice processing facilities should be granted to productive provinces.

STAFF EXTRAORDINAIRE

► ALLAN C. BIWANG JR.

Cantila is DA-RFO 12's Outstanding Agri-Researcher



PhilRice Midsayap's senior researcher Aldrin Y. Cantila was recognized for his efforts in plant breeding, genetics, and agri-statistics. He was earlier awarded by PhilRice as Outstanding Junior Researcher (Special Citation) and by LGU Midsayap as Outstanding Government Worker in 2017.

His recent studies found that rice lines with bigger flag leaves for the upland ecosystem and those with longer panicles for the lowlands should be selected since these traits are early indicators of higher yield.

Among 29 varieties he tested in General Santos City, NSIC Rc 240 averaged 7.07t/ha, higher than the 6.4t/ha national average.

Prior to joining PhilRice in 2015, he worked on the molecular characterization and diversity of local rubber genetic resources at the University of Southern Mindanao (USM) Agricultural Research Center, his alma mater. He published his first molecular research of 86 rubber clones.

Cantila finished BS Agriculture major in plant breeding and genetics at USM-Kabacan in 2010 (Cum Laude), and MS Plant Breeding at UPLB in 2014 where he was inducted as a member of the Phi Sigma Biological Sciences Honor Society of UP. Currently, he is pursuing PhD in Biological Sciences at the University of Western Australia. ■

Plant pest experts tapped to assess infestation in PNG

On instructions of the DA, PhilRice crop protection experts Genaro Rillon and Dindo King Donayre in May conducted a 2-day field assessment in a rice techno demo farm established at the Pacific Adventist University, Port Moresby, Papua New Guinea (PNG).

They identified brown planthopper (BPH) as the cause of yellowing and browning of the leaves and stems (hopper burn) of the varieties NSIC Rc 160 and Rc 216.

Rillon reported that 1.7ha of the 5.25ha total area planted were infested. "The damage was caused by high BPH populations at 100 to 200 hoppers per hill," he calculated.

To prevent its recurrence in the next cropping season, they recommended the use of BPH-resistant varieties such as NSIC Rc 222, Rc 238, and Rc 300, practice of synchronous planting, no excessive fertilizer application, and proper irrigation.

Donayre particularly observed only minimal presence of snails and weeds such as *Cyperus iria* (payong-payong), *Echinochloa crus-galli* (antenna), and *Ludwigia octovalvis* (malapako).

The rice demo farm was put up under the signed agri-trade relations between the Philippine and PNG governments in 2018. ■

Biotech researcher now a scientist



Ordonio is the 14th staffer of PhilRice conferred with a scientist rank.

Senior researcher Dr. Reynante L. Ordonio was recently conferred a scientist rank by the Civil Service Commission and Department of Science and Technology under the Scientific Career System.

Ordonio has published 14 quality scientific papers on plant molecular biology and genetic engineering, and has secured a patent involving the use of multiplex reverse transcription polymerase chain reaction for simultaneous detection of the rice tungro viruses.

Ordonio specializes in molecular breeding. He leads the Healthier Rice Program that includes the *Golden Rice* and *High-Iron and Zinc Rice Project* that applies biotechnology in breeding micronutrient-rich rice varieties in collaboration with the International Rice Research Institute.

"I hope that Golden Rice, and rice with high iron and zinc, would soon be made available to the public. These would bring good nutritional benefits to Filipinos, especially those already suffering from micronutrient deficiencies," wished Ordonio.

To help address the challenges of climate change in rice farming, he also works with British and Vietnamese scientists as part of the Newton Project to identify useful genes from rice, which can be used for breeding multi-purpose rice for the farm and industry.

He believes that government support is needed to fast-track the development of better varieties through modern biotechnology.

"It would be more fulfilling if I can contribute to modern biotech in the Philippines not only through research, but also by being involved in crafting policies or simply by educating the general public," he stressed.

Ordonio earned his BS/MS in Biology in 2002/2007 from Central Luzon State University. He pursued additional graduate studies at Nagoya University, Japan to obtain MS/PhD in Agricultural Science in 2010/2014, and Postdoctoral Research in 2017. ■

Awards

PRISM Team 1st Place, Best Paper

Title: "Operationalization of PRISM: Revolutionizing Philippine Agriculture thru ICT & Satellite-based Crop Monitoring"

and

Ricardo F. Orge, Katherine C. Villota, Derose A. Sawey, Lolita V. Leal 1st Place, Overall Best Poster

Title: "Development of Kwebo: Simplifying the Design and Construction of a Typhoon-Resistant Multi-Purpose Farm Structure"

both at the
16th International Agricultural and Biosystems Engineering Conference and Exhibition,
Date: April 27, 2019

Congratulations to our newly appointed/promoted staffers!

Cielo Luz C. Mondejar
SRS II, Negros

Fernando D. Garcia
Supervising SRS, Isabela

Gian Carlo C. Enot
SRS II, Bicol

Ma. Ethel P. Gibe
Supervising Administrative Officer, CES

Mohamadsaid B. Gandawali
SRS I, Midsayap

Sylvia Therese C. Quiring
SRS II, Midsayap

Virginia P. Salvador
Librarian III, CES

Using high-quality inbred seeds could yield 10% or more. It also ensures high seedling vigor, purity, and uniformity of crop stand.



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Zamboanga Satellite Station, WMSU Campus, San Ramon, 7000 Zamboanga City; Mobile: 0975-526-0306; 0910-645-9323

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