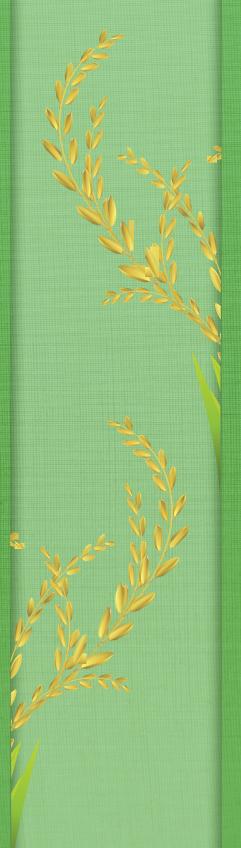
## MILESTONES 2011

Department of Agriculture

PHILIPPINE RICE RESEARCH INSTITUTE







# MILESTONES **2011**



#### MILESTONES 2011

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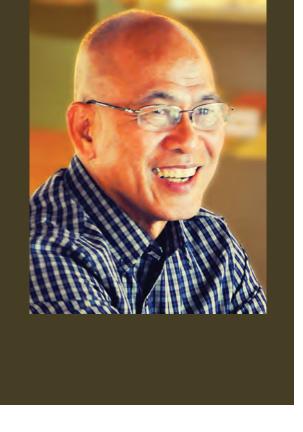
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## Foreword Providing Solutions

In his first State of the Nation Address in 2010, Pres. Benigno S. Aquino III in 2010 said, "we will not anymore import our rice needs." This is not just a promise but a committed goal with a target of achieving rice selfsufficiency by 2013.

"Could we be rice-self-sufficient by 2013?" then becomes a ubiquitous inquiry – from the farmers' *umpukan* to decision makers' board meetings. This is a tough question that requires more action than answers. Research and developmentanchored solutions will help the country become rice-self-sufficient.

As our milestones in 2011, we have developed eight new early-maturing varieties for irrigated and rainfed lowland, and saline-prone areas. These varieties will not only help farmers in adverse ecosystems achieve higher yield but also help reduce their expenses on fertilizers, irrigation, and fuel.

In response to the threat that climate change poses, we have started our work in developing rice varieties that can tolerate temperatures up to 40°C. As environment factors contribute 20% in attaining good harvests, these varieties will help farmers adapt to climate change and ensure the country's rice supply.

Our researches in our 26th year also produced recommended practices that farmers could use for more effective and efficient ways of growing their rice. Our researchers based in Ilocos Norte had developed an irrigation system that could save water by 55%. We have found the best date to plant rice in Agusan del Norte, where rice production is challenged by heavy rainfall, floods, and low solar radiation. In flood-prone areas, farmers could now efficiently produce vegetables through floating gardens.

As farmers' adaptation to climate change is on our top research agenda, we evaluated water management techniques and found that Alternate Wetting and Drying technology (or Controlled Irrigation) lowers methane emission. To also help farmers reduce fungicide applications that may contribute harmful effects to the environment, we worked on identifying a strain of fungal microorganism lethal to white stem borer, one of rice's major insect pests that can cause 25-50% yield loss.

Meanwhile, our engineers are helping seed growers and farmers reduce labor and post-production costs and improve quality of rice seeds and palay through the 8-ton Reversible Air Dryer, Saclob, and new prototypes of the brown rice milling machine.

We also bring good news to brown rice consumers as the shelf-life of this healthy form of rice has been prolonged from three to eight months using microwave treatment.

Moreover, we have added more value to rice with the development of rice fragrances that are environment-friendly and non-allergenic.

We feel proud when farmers inform us that our technologies have helped them increase their yield. In North Cotabato and Sultan Kudarat, adoption of *PalayCheck*, an integrated crop management system for rice, increased farmers' yield from less than 4 t/ha to about 6 t/ha. In Regions I and III, one of our projects helped increase rice and corn production by 30% and 63%, respectively.

We have covered 62 provinces and trained more than 10,000 farmers under our completed Location-Specific Technology Development program. The technology demonstrations, trainings, and Farmer Field Schools resulted in 170 technology packages relevant to and indispensable in achieving the country's goal of rice self-sufficiency.

We have also enhanced the skills of Mangyan farmers in Mindoro by training them in *Palayamanan*, a diversified rice-based farming system, and Abra women in planting rice-based vegetables more productively to improve their family, especially the children's health.

Our Intellectual Property portfolio continues to grow as our R&D workers maintain excellence in their fields. PhilRice workers do not ask, "Could we be rice-self-sufficient by 2013?" Rather, we reflect on what we could do to help provide enough food for every Filipino, then we act.

We have widened our R&D coverage with the establishment of our seventh branch station at Batang, Ligao City, Albay. To rise on a 25-ha site in the country's sixth largest rice-producing region, PhilRice Bicol is envisioned to lead in the development of varieties and crop management technologies for adverse environments caused by climate change.

We are glad that our works of minds and hands are proven to be productive as they are recognized by award-giving bodies in national and international levels and our partners continue to trust us in improving the quality of farmers' lives.

"Could we be rice-self-sufficient by 2013?" Our milestones may help provide answers. But more than answers, we help in creating solutions. As part of the rice sector, we encourage you to help us widen the reach of these solutions.

EUFEMIO T. RASCO JR Executive Director (*Effective July 4, 2011*) PhilRice Agusan. The Institute's nutrient management center based in Basilisa, RTRomualdez in Agusan del Norte.

The morning breeze, crisp! Warm wind intertwining grains To farmers' delight!

SIMA DE DENING



## Quality seeds, grown By minds, hands; keen, devoted A PhilRice wonder!

- Eight early-maturing (108 to 118 days) varieties were developed for irrigated, rainfed lowland, and saline-prone areas. These new PhilRicebred varieties include seven inbreds and a hybrid: NSIC Rc240 (Tubigan 22), Rc21 SR (Malagkit 5), and Rc244H (Mestiso 29); Rc272 (Sahod Ulan 2) and Rc288 (Sahod Ulan 10) for the rainfed lowland; and Rc290 (Salinas 6), Rc292 (Salinas 7), and Rc294 (Salinas 8) for salineprone areas.
- Work on new types of hybrid rice, the varieties bred by crossing two rice plants with superior qualities, has been intensified to make them perform better in the wet season when many hybrids are known to be susceptible to pests and diseases. They will soon have thicker and stronger culm, better root system, moderate resistance to prevailing pests and diseases, and more dense spikelets per panicle.

# Rice breeding



- To help further increase yield in irrigated lowland rice during the dry season, two elite inbreds, PR31379 and PR34126, were nominated by the Rice Technical Working Group (RTWG) to the Technical Secretariat for endorsement to the National Seed Industry Council (NSIC).
- PR34159, an elite line for direct wet seeding, was nominated by the Rice Varietal Improvement Group as a new variety. This line would be the first NSIC-approved variety for direct-seeded cultivation.
- Genetically pure nucleus and breeder seeds of 12 public hybrids (Mestizo 1, 3, 7, 16, 17, 19, 20, 21, 25, 26, 29, and 38) were continuously produced to support the country's goal of rice self-sufficiency.
- Eighty-five advanced mutant lines of gamma-irradiated NSIC Rc156 and Rc144 were screened for herbicide tolerance. Fifty-three lines with a total of 339 individual plants survived the irradiation and were advanced for agronomic performance evaluation.
- Nineteen new crosses, involving six varieties NSIC Rc130, Rc112, Rc142, Rc152, Rc154, and Rc160 and five F<sub>2</sub> cross combinations from conventional breeding, were generated for developing ultra-early-maturing (100 days or less) varieties.
- Four-hundred-forty-five new rice collections were added to the germplasm pool conserved in our genebank. The new collections include 46 Philippine traditional varieties, 376 advanced or elite rice breeding lines, and 23 varieties of international origin. Conservation of these important rice genetic resources will safeguard future stock and preserve the richness of rice genetic diversity.



- Four-hundred-two varieties were regenerated during 2011 DS. Regeneration of conserved germplasm is important to ensure viability and availability of seeds for research and development activities and use by farmers.
- Some 300 hectares nationwide were used to produce foundation (FS) and registered seeds (RS) for growers who supply certified seeds (CS) to rice farmers. All-time favorites of seed growers are PSB Rc18, Rc 160, and Rc82. Newly released varieties are also in the top spots, such as the NSIC Rc200 series.
- Our seed production and distribution schemes have benefitted about 4,000 farmers across the country.

#### Top-selling foundation seeds.

Variety	Total Volume Sold (kg)
PSB Rc18	13,547
NSIC Rc216	13,342
PSB Rc82	11,987
NSIC Rc222	8,886
NSIC Rc156	6,631
NSIC Rc122	8,886
NSIC Rc152	2830
NSIC Rc128	3,725
NSIC Rc138	3,150
PSB Rc10	2,620

#### Top-selling registered seeds.

rop benning register.	la occasi
Variety	Total Volume Sold (kg)
NSIC Rc160	43,591
NSIC Rc216	30,477
NSIC Rc224	24,116
NSIC Rc122	15,140
NSIC Rc222	13,277
PSB Rc82	12,318
PSB Rc10	9,691
NSIC Rc128	4,231
PSB Rc14	3,991
NSIC Rc138	3,448
NSIC Rc218	3,270

## We work with vigor And synergize with partners To reach and do more.

- Our collaborative breeding projects with UP Los Baños produced three new rainfed lowland varieties: NSIC Rc276 (Sahod Ulan 4), Rc282 (Sahod Ulan 7), and Rc286 (Sahod Ulan 9).
- Our partnership with Phil-Sino Center for Agricultural Technology (PhilSCAT) and Central Luzon State University produced the hybrid, NSIC Rc262H (Mestiso 38).
- Under the Korean Project on International Agriculture (KOPIA), ten Korean and five Philippine-bred rice varieties were tested and evaluated on their adaptability and yield performance under local conditions, and pest and disease resistance in San Luis, Aurora; Balilihan and Carmen, Bohol; Quezon, Isabela; Tabuk City, Kalinga; Naujan, Oriental Mindoro; and at the PhilRice Central Experiment Station.
- Top three high-yielding Korean cultivars namely Jinmibyeo, Dasanbyeo, and Hangangchal 1 with yields of 7t/ha were seed-increased. Analysis revealed their good to excellent grain and eating qualities.
- Under the Breeding Heat-Tolerant Rice Project of ASEAN-Korea Economic Cooperation, cultivars from Cambodia (IR66, RD6), Korea (Gayabyeo, Hanareum, Jinmibyeo, Junambyeo, Dongjin 1), Philippines (NSIC Rc150, Rc160), and Vietnam (AS996-9, OM 5930) were gathered for crossing work at PhilRice, Korea, and Vietnam.
- Three heat-tolerant donors (N22, Dular, and Nipponbare) and popular cultivars were used as parents to develop breeding populations for selection. The advanced breeding populations were established under heat stress environments in Nueva Ecija and Cagayan.
- Protocol on heat tolerance evaluation was developed and will be used by the National Cooperative Testing (NCT) group in recommending the release of heattolerant varieties.
- In the Accelerating Rice Self-Sufficiency through Integrated Research, Training, and Extension project, we are sharing with DA and IRRI, more than 300 Synthetic Aperture Radar images to be used in mapping rice areas across the country. This activity aims to map and assess rice areas to generate data and information on upto-date rice distribution, yield, potential-actual yield gaps, and yield-limiting and reducing factors.
- A non-exclusive licensing agreement was forged with Pioneer Hi-Bred Philippines, Inc for the production and commercialization of TGMS-based twoline hybrid Mestiso 19 for our varieties to be used by more farmers. We expect



more private companies, cooperatives, and individual farmers to avail of the nonexclusive licensing opportunity as our hybrids gain popularity among farmers.

- Our hybrid and upland seed production was intensified with financial grants from the Department of Agriculture.
- Our project with the Food and Agriculture Organization had benefitted 3,800 farmers in five rainfed provinces of Regions I and III. The project, which integrated the small-scale irrigation system and Farmer Field School (FFS), contributed to the regions' 34% increase in rice yield in the wet season in 2011. In the dry season, the project yielded 30% increase in rice and 63% in corn production. The regional field units funded the FFS.
- We helped craft the Food Staples Self-Sufficiency Plan 2011-2016, a product of a series of workshops spearheaded by the DA Rice Program and participated in by various agencies.
- We have also signed a 3-year Memorandum of Agreement with the Tulay sa Pagunlad, Inc (TSPI) that covers a series of trainings for TSPI staff and their farmerclients on the latest rice farming technologies.
- We had dispatched our staff to Tanzania for a two-month evaluation of the country's farmer organizations and associations. The activity is part of the bilateral agricultural cooperation between the Philippines and JICA, which aims to increase rice production and profitability in 150 irrigation schemes in Tanzania.

## Rice is farmers' lives So precious, they hold hopes, dreams. Inspiring. Moving.

The study, *Growth and productivity of lowland rice under different meteorological conditions imposed by varying the dates of planting in Agusan del Norte,* revealed that regular planting on Jan. 30 produced the highest grain yield at 5.4-6.7 t/ha. The conditions on this planting date could be considered optimum for rice crop growth owing to minimal rainfall, good cumulative solar radiation, and favorable air temperatures during the crop's critical growth stages. Four lowland rice varieties: PSB Rc82 and Rc18, NSIC Rc146 and Rc122 were planted on six planting dates: early or regular (Jan. 15 and 30) and late (Feb. 14 and 28; March 15 and 30).

- As a pest management strategy, farmers may consider planting flowering vegetables such as okra and beans along rice bunds. These vegetables in Palayamanan (diversified farming) fields are sources of nectars for egg parasitoids (e.g. *Anagrus sp., Gonatocerus sp., Oligosita sp., Mymar sp., Tetrastichus sp.,* and *Telenomus sp*) of rice planthoppers, leafhoppers, and stem borers), and shelter for predators including spiders, coccinelid beetles, long-legged flies, and yellowishbrown ants.
- Study on identifying the most virulent strain of *Beauveria bassiana*, a fungal microorganism proven lethal to white stem borer, revealed that *B. bassiana* can control 95% of larva 3 days after applying the fungus.
- Farmers in flood-prone areas could now efficiently produce vegetables through the floating garden, a food production strategy that allows planting pechay, sitao,



and eggplant on floating materials. A floating garden that uses water hyacinth, plastic bottles, and bamboo poles withstood signal-number-3 winds and rains brought about by typhoon Pedring on Sept. 27, 2011.

- Fields of farmers practicing the Alternate Wetting and Drying (or Controlled Irrigation) technology, a water management strategy, were found to generate lower methane emission.
- The use of pure inorganic fertilizers attained the yield potential of irrigated lowland rice of 8-9 t/ha with the use of site-specific nutrient management practices. The combination of inorganic and organic fertilizers at lower nutrient rates gave comparable 5.7-7.2 t/ha yield with pure inorganic.
- When water is readily available, a well-prepared land can be achieved by one plowing, two harrowings, and three passes of leveler with a total duration of 7 days with 2 days interval. This practice resulted in low weed populations at 30 and 45 days after transplanting, and high grain yield.
- A low-cost drip irrigation system for rice and other high-value crops developed to use plastic drum, control valves, filter, mainline and manifold, and lateral lines (moldex hose), was found to be at least 70% cheaper than a commercial drip irrigation system for a 1,000-sqm plot and saves water by 55%.

Participatory video approach was used to capture local farmers' knowledge and practices, and share lessons learned their stories to experts, and *vice versa*.

## Farmers are saviors Who fill every nation's soul Their existence... life!

- Farmers, extension workers, and other rice stakeholders were trained on farm machinery and safety operation; *PalayCheck*, an integrated crop management system for rice; and on organic fertilizer production.
- More than 3,000 farmers, legislators, extension workers were updated about rice science and technology (S&T) through field days, and field problems were diagnosed through the mobile rice *teknoklinik*. *Teknoklinik* brings rice experts and scientists to provinces and municipalities to listen to farmers and offer solutions to farming problems.
- Aurora farmers were enabled to take part in the conceptualization, scriptwriting, and actual production of two technology videos: *LSTD-Dildikit: Ang Paggawa ng MOET* and *Kuhol Management: Mucdol Style*.
- Recommendations in the PhilRice 2012 wall calendar were guided by the vagaries
  of the four climate types in the country.
- Information and communications technologies were optimized through the launching of a new site www.palayaralan.com, in which farmers, extension workers, and those interested in rice farming could take e-learning courses. Eight web conferences were also conducted to immediately address farming needs.
- We launched the Rice Matters page in Facebook, Twitter, and WordPress. These
  were created not only to promote rice S&T but also to facilitate dialogue among
  the rice researchers, farmers, extension workers, and other stakeholders and to
  provide more interactive options for the public, rice advocates, and the media to
  connect with us.

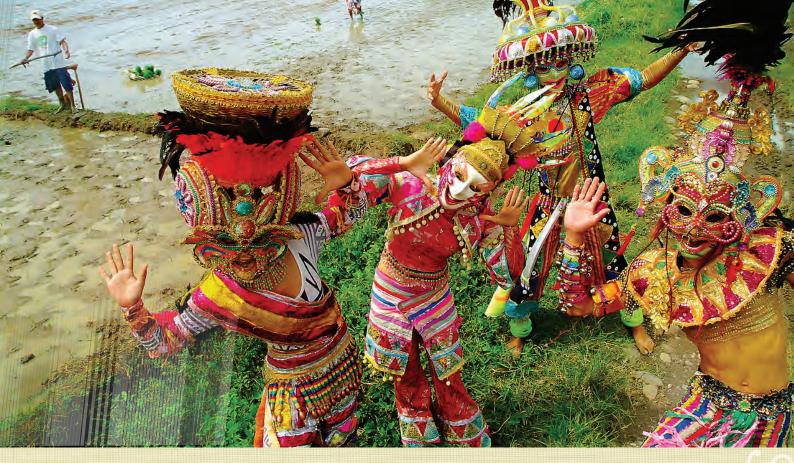


Ahh, harvest is here The labor, the sweat, so sweet As good grains turn gold.



## Rice tillers all smile Carrying loads of produce For nation's millions.

- Seed viability is extended by 6-12 months using saclob, a flexible hermetic container. It is a locally developed airtight container, equipped with a simple sealing mechanism, where bags of rice seeds are placed during storage. Saclob can preserve the quality of stored seeds much better than the conventional open storage method, and is comparable with its imported counterpart.
- Palay traders and cooperatives may now earn more with the 8-ton Reversible Air Dryer that increases drying capacity while reducing labor cost. By reversing the direction of air flow at a certain point during drying, this dryer reduces moisture content by 1.0% per hour, lessening the risk of spoilage, preventing pest buildup, and precluding grain discoloration caused by grain heating at high moisture content.
- Two prototypes of a brown rice milling machine with promising outputs were developed. One assembled a dehulling unit, an aspirator, and a single-layer separator. The other included a Satake SB10 single-pass rice mill (to produce brown and white rice), 4-layer paddy separator (for separation of brown rice and unhulled paddy), bucket elevator (for loading of input paddy and recirculation of unhulled paddy).



## And harvest has more! For as ingenuity strides, Rice gets more value.

- Our researchers' creativity had resulted in prolonging the shelf-life of brown rice from three to eight months through microwave treatment.
- Inspired by modern expensive perfumes in the market, we created lines of rice scents that are environment-friendly and non-allergenic. The scents are by-products of rice wine production, as their base alcohol is from oxidized rice wine.
- The 750-ml bottle of *Tapuy* is now available in dark green bottles, for better product protection.
- Our *Tapuy* Rice Wine production plant is now fully operational, and is partly mechanized. The production machines were made available through a partnership with the Department of Engineering of the Tarlac State University.
- A product ID barcode for rice seeds has also been generated and approved by GS1 Philippines. GS1 designs and implements global standards and solutions to improve the efficiency and visibility of supply and demand chains globally and across sectors. The GS1 system of standards is the most widely used.
- We launched the PhilRice *Tapuy* Rice Wine Cookbook & Cocktails, which features recipes from top chefs and food enthusiasts all over the country, including Chef

LTOCITOLY



Gene Gonzales of Café Ysabel, Chef Nancy Reyes of Food Magazine, and Chef Bruce Lim of Tablescapes. The Philippine Bartenders' League also helped in the mixing and styling of the cocktails.

- We help farmers gain more value from their rice fields and become more creative in rice farming by educating them on *Palayamanan*. In Lagangilang, Abra women were educated on good vegetable farming practices to help reduce malnutrition in their town. Five of them now guide recipients of the government's Pantawid Pamilyang Pilipino Program (4Ps) who plant vegetables in their backyard.
- Mangyans in Romblon and Occidental Mindoro were trained on *Palayamanan* to help them ensure year-round supply of vegetables and other foods in their communities.



## Creativity Olympian Muse enticing New ways, novelty.

- The completed LSTD program had established 535 technology demonstration sites covering 62 provinces and trained more than 10,000 farmers in the Farmer Field School. About 400 rice specialists were trained since 2008 and 170 technology packages were developed, which local government units could use in their locality.
- To reach and serve more rice farmers, we started establishing our seventh branch station at Batang, Ligao City, Albay. PhilRice Bicol is envisioned to lead in the development of varieties and crop management technologies for adverse environments caused by climate change.
- Twenty-five extension agronomists from Mozambique, Rwanda, Tanzania, Uganda, and Kenya learned PalayCheck (integrated crop management system) and *Palayamanan* (diversified rice-based farming system) at PhilRice for four months to increase rice production in Sub-Saharan Africa.

As summer brings glee Grains await the next cycle Of seasons, sweet, harsh!

## Intellectual

## Question then echoes, Could nation's millions be fed? Act, more than answer.

#### Patents

 We have 10 pending patent applications, four of which are machines and six are for methods and processes. The approved patent for our seed cleaning machine is valid until 2025. We have acquired 15 patents since 2004.

#### Plant Variety Protection (PVP)

 PVP applications for TGMS varieties - PRUP 7 (Mestiso 19) and PRUP 9 (Mestiso 20) - had been approved, adding to the four PVPs granted to us since 2006.

#### Intellectual Property Licensing

 Five companies entered into a non-exclusive licensing agreement with us, which include Pioneer Hi-Bred Philippines, Inc, to produce, distribute and sell the F<sub>1</sub> hybrid seeds of M19 and to produce and maintain the seeds of the parent lines; Morallo Industries, Lakas Kuliglig Inc, Suki Trading Center, MTP Mach & Metal Craft Corp. to commercially manufacture seed cleaner, riding attachment, gasifier, and riding attachment, respectively.

#### Royalties

 About 4.2 M was generated and is available as a revolving fund to defray intellectual property management costs and expenses and to fund research and development, science and technology capability building, and technology transfer activities as per Republic Act No. 10055 or the Philippine Technology Transfer Act of 2009. We expect a continuing increase in royalty revenues as we obtain more patents and PVPs.

#### Copyright

• Twenty-two knowledge products were deposited at the National Library, with Certificate of Copyright Registration and Deposit. We now have 268 copyrights accumulated since 2004.

#### Researches published in journals

 Eighteen articles were published, four of which landed in ISI journals. Our researchers also published their works in two books as chapters, while Executive Director Eufemio T. Rasco Jr published a book titled, The Nypa Palm: Nature's Gift from the Age of the Dinosaurs.



## Changes season growth To optimize resources, Innovate, excel.

## Administrative Orders have effected the following changes within the last quarter of 2011:

Integration of the Rice Engineering and Mechanization Center into the Rice Engineering and Mechanization Division (REMD)

Institutionalization of the PhilRice Business Development Office

Integration of the Open Academy for Philippine Agriculture into the Development Communication Division

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同時以下學家的語言

Transferring the Farm Operations Unit under the Physical Plant Division (from REMD)

Streamlining the Germplasm and Seed Health Division into the Genetic Resources Division, Transferring its Seed Health Functions to the Crop Protection Division

Creation of the Information Systems Division

Transfer of the Security Unit under the Office of the Acting Director for Administration

Transfer of the Socioeconomics Division and Impact Evaluation, Policy Research, and Advocacy Program to the Office of the Acting Deputy Executive Director for Development (from Research)

## Enough rice, a dream! Intense dream molding the best Never giving up.

Our accomplishments in 2011 are products of the harmonious efforts of our human resources.



For our human resources to be more productive and creative, we added to our online subscriptions the ProQuest Agriculture, a database which covers over 645 titles from 1970 to present on a range of agriculture-related topics: plant sciences, farming and farming systems, agricultural economics, food and nutrition, aquaculture and fisheries, and animal and veterinary sciences.

Our branch stations in Batac City, Ilocos Norte; San Mateo, Isabela; Midsayap, North Cotabato; and Murcia, Negros Occidental had adopted the framework on Integrated Management System. Adopting this framework ensures quality in R&D activities.

We also improved our good laboratory practices. From 56% in 2010, 90% of our laboratory equipment are now calibrated.

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## Tough question resounds To move high, seek solutions Answering the call.

#### Awardees

Awards Received

#### Charisma Love B. Gado

Best Regional Feature Story Bringing back the grains; 4th Philip Morris Fortune Tobacco Corp. Bright Leaf Agriculture Journalism Awards, Sofitel Hotel, Manila, January 18, 2011

#### Dindo King M. Donayre, TUDalisay, RGBayot, and AMBaltazar

#### Second Best Paper

Diversity of Endophytic Fungi in Echinochloa glabrescens Munro ex Hook. f. and their Potential as biocon agents against rice sheath blight pathogens; 13th Annual Scientific Meeting and Symposium on Fungi and Climate Change, UPLB, Los Baños, Laguna, April 14-15, 2011

Awardees	Awards Received

#### Henry F. Mamucod, EDizon, RMabesa, and NBasilio

Second Best Poster

Biopigments from Monascus purpureus Went: Functional properties, antimicrobial activities and Food Application; 13th Annual Scientific Meeting and Symposium of the Mycological Society of the Philippines, Inc.; Drilon Hall, SEARCA, UPLB, Laguna, April 15, 2011

#### Noel D. Ganotisi, RABatuac, and RCCastro

Best Paper (Irrigation, Soil, Water, and Geographic Information System Category)

Regulated deficit irrigation for rice-based watermelon under Ilocos conditions, 61st Philippine Society of Agricultural Engineers (PSAE) Annual Convention, Dapitan City, Zamboanga Del Norte, April 25-29, 2011

Third Best Paper (same category as above) Design and development of a low-cost drip irrigation system (LDIS) for rice-based high-value crop production, 61st PSAE Annual Convention

#### Arnold O. Juliano, JARamos

Second Best Paper (Renewable Energy Category) Development of a mobile rice hull gasifier-engine pump system, 61st PSAE Annual Convention

#### Juanito M. Maloom

Second Best Paper (Irrigation, Soil, Water, and Geographic Information System Category)

Development of a GIS-based model for predicting rice yield, 61st PSAE Annual Convention

#### Ricardo F. Orge

Third Best Paper (Renewable Energy Category) Development of a continuous-type rice hull carbonizer, 61st PSAE Annual National Convention

#### Maricel D. Duque, KJPanaligan, LMarquez, and HXTruong

Best Poster

Ecological risk management of blast endemic in rainfed lowland rice; 42nd PMCP Anniversary and Annual Scientific Conference, L'Fisher Hotel, Bacolod City, Negros Occidental, May 3-6, 2011

#### Evelyn B. Gergon

G.O. Ocfemia Outstanding Plant Pathologist Award in Research (Individual Category) Philippine Phytopathological Society, L'Fisher Hotel, Bacolod City, Negros Occidental, May 6, 2011

#### **Open Academy for Philippine Agriculture**

2011 CSSP Achievement Award in Extension: Group Category, La Piazza Hotel and Convention Center, Legazpi City, Albay, May 12, 2011

#### **Awards Received**

#### Flordeliza H. Bordey and CHNelson

Best Paper

Productivity of rice farming in the Philippines: Patterns and sources, 21st Federation of Crop Science Societies of the Philippines (FCSSP) Scientific Conference, La Piazza Hotel and Convention Center, Legazpi City, Albay, May 12, 2011

#### Jovelyn J. Unay, EPRico Jr., LBorines, CVCruz, and DATabanao

Best Poster Combating bacterial blight disease in hybrid rice cultivars through pyramided resistance genes, 21st FCSSP, La Piazza Hotel and Convention Center

#### Vicky T. Dimaano

Third Best Poster Development and evaluation of floating gardens as food production strategy in flood-prone communities in the Philippines; 14th PSSST Annual Meeting and Scientific Conference, VSU, Baybay City, Leyte, May 27, 2011

### Antonio A. Alfonso, EOEspejo, CJADilla, GBRavelo, NSGarcia, JJSomera, and ESAvellanoza

Best Poster (Agricultural Science Category) Marker-aided transfer of B-Carotene biosynthesis into popular Philippine rice varieties, National Academy of Science and Technology (NAST) Annual Scientific Meeting, Manila Hotel, July 13-14, 2011

#### Evelyn B. Gergon, GBAmar, and DASaclangan

Best Poster (National Category) Minimizing bacterial leaf blight and other diseases in rice using organic pesticides, NAST Annual Scientific Meeting

#### Flordeliza H. Bordey

Second Prize, Talent Search for Young Scientist, Individual Category, NAST Annual Scientific Meeting

#### Noel D. Ganotisi, RABatuac, and RCCastro

Best Poster

*RDI, Ipakatmon kayong iti pakwan*; 22nd Regional Symposium of R&D Highlights, University of Northern Philippines (UNP), Vigan City, Ilocos Sur, August 11-12, 2011

#### Noel D. Ganotisi

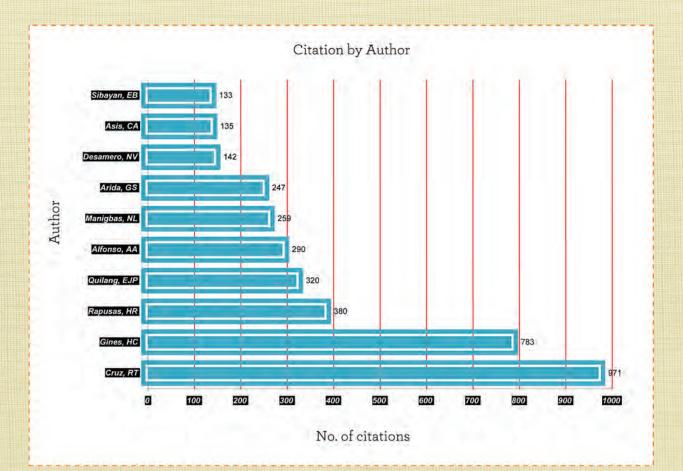
Second Best Poster LDIS ti usaremon gayyem; 22nd Regional Symposium of R&D Highlights

#### Marissa V. Romero, NMPanajon, RVManaois, and HFMamucod

Best Poster Health-promoting antioxidants from pigmented rice, 22nd Regional Symposium on R&D Highlights, Aurora State College of Technology, Zabali Campus, Baler, Aurora, August 12, 2011

Awardees	Awards Received
Antonio A	. Alfonso, EOEspejo, CJADilla, GBRavelo, NSGarcia, and JJSomera
	Best Paper Marker-aided transfer of beta-carotene biosynthesis genes (Golden rice 1) into two Philippine rice varieties, 23rd National Research Symposium, DA-BAR, Diliman, Quezon City, October 10-11, 2011
Roel R. Su	ralta
	Japan International Award for Young Agricultural Researchers 2011, Ministry of Agriculture, Forestry, and Fisheries; Tsukuba International Congress, Japan, November 14, 2011

• Using Google Scholar, our most highly cited authors are prominent. Factors influencing citation include: value of research work, professional years in research, and publications in international, high-impact, peer-reviewed, widely circulated journals, as well as those covered by indexing and abstracting services. They are:

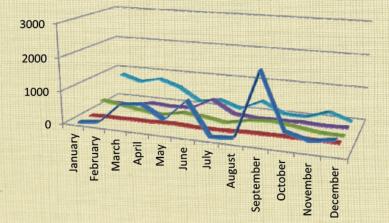


Source: Google Analytics, 2011.

Farmers across the country regularly visit our experiment fields to learn new farming practices.

## Share this noble dream Of having abundant rice. Let's move, advocate.

 We shared ways on how to achieve rice self-sufficiency to about 13,000 guests and visitors.



- Farmers/ Extension workers
- Collaborators/Researchers
- Students/Teachers
- Walk-in visitors/Agencies





Together we act To make better horizon Tough question, resolved.

• To help tackle the tough question of achieving rice self-sufficiency, we encourage you to work with us. In 2011, we conducted activities that aimed to educate the children and youth on their roles in helping provide enough rice for every Filipino such as ceremonial harvesting at the Luneta Rice Garden; information exhibits; and publication of *Bagong Bayani*, a 16-page comics intended for youngsters 11 years old and above, tells how a girl, caught in the battle between the good and evil forces, learns to save rice to save thousands of people. Fun runs and monthlong student forums were also conducted in different universities across the country. The theme for rice conservation was *Eat Your Rice, Right*!

24 MILESTONES 2011

Subtle fragrances Now permeate the morning air Reliving old hope!

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We are a chartered government corporate entity under the Department of Agriculture. We were created through Executive Order 1061 on 5 November 1985 (as amended) to help develop high-yielding and cost-reducing technologies so farmers can produce enough rice for all Filipinos.

We accomplish this mission through research and development work in our central and seven branch stations coordinating with a network that comprises 57 agencies and 70 seed centers strategically located nationwide.

To help farmers achieve holistic development, we will pursue the following goals in 2010-2020: attaining and sustaining rice self-sufficiency; reducing poverty and malnutrition; and achieving competitiveness through agricultural science and technology.

We have the following certifications: ISO 9001:2008 (Quality Management), ISO 14001:2004 (Environmental Management), and OHSAS 18001:2007 (Occupational Health and Safety Assessment Series).

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