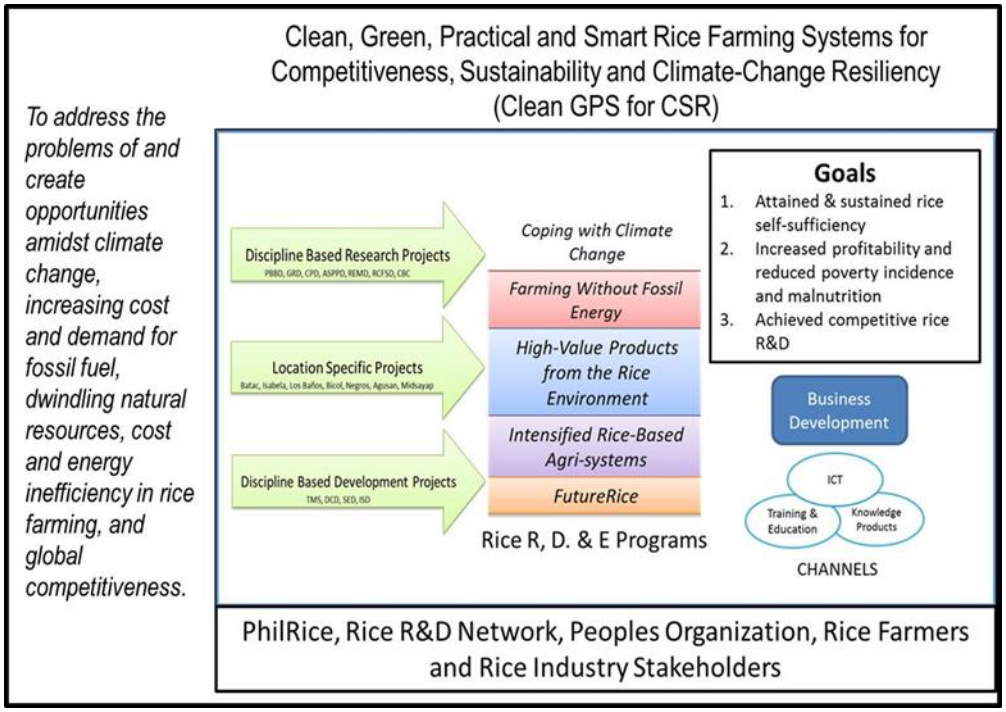
Department of Agriculture
PHILIPPINE RICE RESEARCH INSTITUTE
Maligaya, Science City of Muñoz, 3119 Nueva Ecija

Certified:
ISO 9001:2000; ISO 14001:2004;
OHSAS 18001:1999

EXECUTIVE SUMMARY

To pursue a more focused, efficient, and appropriate R&D efforts, PhilRice has developed its Strategic Plan for 2010–2020 with three main goals: (1) help in attaining national rice self-sufficiency by 2013 and in sustaining it in 2014 and beyond; (2) contribute in reducing the incidence of poverty and malnutrition; and (3) achieving competitiveness in rice science and technology. These goals are aligned with the Philippine Food Staples Sufficiency Program (FSSP, 2011-2016), the UN Millennium Development Goals, Philippine Development Plan (PDP), the Agriculture and Fishery Modernization Act (AFMA), and initiatives of civil society organizations (CSOs).

To achieve these goals, major programs and projects for 2011–2016 were conceptualized and developed in 2010, and implemented in 2011. After an R&D review in December 2012, the programs were recast into relevant and responsive themes, which have undergone review, consultation and critiquing during the PhilRice Board of Trustees meeting on March 4, 2013 and the quarterly meeting of the NAFC Sub-Committee on Cereals (composed of various private, government and non-government organizations in the rice and corn sub-sector) on March 15, 2013. The recast programs were partially implemented in 2013 and were fully implemented starting 2014:



A total of 83 projects were conducted and distributed widely among R & D programs, divisions, centers and branch stations. These projects are also implemented nationwide in partnership with DA research centers, state colleges and universities, government and non-government organizations.

Programs, Divisions, Center, Stations	2013	2014
R&D PROGRAMS	**22**	**26**
Coping with Climate Change	4	3
High Value Added Products from Rice and Its Environment	3	3
Farming without Fossil Energy	3	3
Developing Technologies to Break the Low Rice Yield Barriers in Rainfed, Upland, & other Adverse Environments *(to be completed June 2014)*	5	3
Intensified Rice-based Agri-bio Systems	4	11
FutureRice	3	3
DIVISIONS & CENTER	**40**	**48**
Plant Breeding and Biotechnology	4	8
Genetic Resources	4	5
Agronomy, Soils and Plant Physiology	4	5
Crop Protection	5	5
Rice Chemistry and Food Science	2	2
Rice Engineering and Mechanization	3	3
Seed Technology	3	3
Information Systems	2	3
Development Communication	2	3
Technology Management and Services	4	5
Socioeconomics	4	4
Crops Biotech Center	3	2
BRANCH STATIONS	**26**	**9**
PhilRice Batac	5	1
PhilRice Isabela	2	1
PhilRice Los Baños	4	2
PhilRice Bicol	2	1
PhilRice Negros	6	1
PhilRice Agusan	7	1
PhilRice Midsayap		2
TOTAL	**88**	**83**

Highlights of Physical Performance as per DBM approved Major Final Outputs (MFOs). For the year, PhilRice implemented 89 projects for rice R&D. These projects developed different technologies such as varieties, machines, crop management options and to promote these technologies, different strategies or approaches were utilized such as trainings, information materials, exhibits, and others. In summary, PhilRice have accomplished 100% of its targets.

MFOs and Performance Indicators	FY 2014 Quarterly Targets					2014 Accomplishments				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
Number of research projects implemented	89	89	89	89	89	89	89	89	89	89
Percentage of research projects completed within the original proposed timeframe	-	-	-	100% (9)	100% (9)	-	-	-	100% (9)	100% (9)
Number of varieties developed for commercial production (Submitted to the National Seed Industry Council (NSIC) for deliberation and approval)	-	-	-	15	15	-	-	-	24	24

HIGHLIGHTS OF ACCOMPLISHMENTS, 2014

I. VARIETIES DEVELOPED FOR COMMERCIAL PRODUCTION

For 2014, ten new inbred and fourteen new hybrid varieties were approved by the National Seed Industry Council (NSIC) for commercial cultivation in irrigated lowland conditions

NSIC name	Local name	Provinces adapted	Ave. Yield (t/ha)	Maturity (DAS)
IRRIGATED LOWLAND (Inbred)				
NSIC 2014 Rc352	Tubigan 27	Pangasinan, Cagayan, Tabuk Kalinga, Or. Mindoro & Camarines Sur)	5.1	111
NSIC 2014 Rc354	Tubigan 28	National	5.4	112
NSIC 2014 Rc356	Tubigan 29	Samar, Aklan & Bohol	5.0	116
NSIC 2014 Rc358	Tubigan 30	Samar, Aklan & Bohol	5.4	114
NSIC 2014 Rc360	Tubigan 31	Aklan & Bohol	5.2	118
IRRIGATED LOWLAND (Hybrid)				
NSIC 2014 Rc362H	Mestiso 52	Bohol, Iloilo & Leyte	6.1	115
NSIC 2014 Rc364H	Mestiso 53	Bohol, Iloilo & Leyte	6.0	106
NSIC 2014 Rc366H	Mestiso 54	Bohol, Iloilo & Leyte	6.0	107
NSIC 2014 Rc368H	Mestiso 55	National (for dry season)	5.9	109
NSIC 2014 Rc370H	Mestiso 56	Bohol, Iloilo, Leyte & Negros	6.1	109
NSIC 2014 Rc372H	Mestiso 57	Bohol, Iloilo, Leyte & Negros	5.3	108
NSIC 2014 Rc374H	Mestiso 58	Bohol, Iloilo, Negros & Leyte	6.0	109
NSIC 2014 Rc376H	Mestiso 59	National	6.3	111
NSIC 2014 Rc378H	Mestiso 60	National (for dry season)	5.7	110
NSIC 2014 Rc380H	Mestiso 61	Bohol, Iloilo & Leyte	6.0	109
NSIC 2014 Rc382H	Mestiso 62	National	6.2	108
NSIC 2014 Rc384H	Mestiso 63	Bohol & Leyte	6.0	111
NSIC 2014 Rc386H	Mestiso 64	National	6.4	108
NSIC 2014 Rc388H	Mestiso 65	Bohol, Iloilo, Leyte & Negros	5.9	106

NSIC name	Local name	Provinces adapted	Ave. Yield (t/ha)	Maturity (DAS)
SALINE				
NSIC 2014 Rc390	Salinas 19	National	4.0	112
NSIC 2014 Rc392	Salinas 20	National	3.2	113
UPLAND				
NSIC 2014 Rc25	Katihan 2	National	3.0	107
NSIC 2014 Rc27	Katihan 3	National	2.7	107
NSIC 2014 Rc29	Katihan 4	National	2.3	108

These new varieties for commercial release passed the yield criterion for national recommendation. It has high yield advantage over existing varieties and can increase the rice production.

II. INTEGRATED/CROP MANAGEMENT OPTIONS

Management Options	Accomplishments
Effect of habitat manipulation through vegetation diversity on population of key insect pests, its natural enemies, damage and species richness.	Results indicated the high population of these beneficial organisms and arthropod species richness in the ecological engineering field as compared to farmers' field. Conservation of the rich communities of these beneficial organisms in the rice ecosystem is an important component for an effective and sustainable Integrated Pest Management (IPM) in rice.
Enhanced the qualities of rice grain for higher value	3 pre-harvest and post-harvest management options evaluated for aromatic and organic rice in 2016.
Appropriate pre-harvest and post-harvest management technologies developed for aromatic and organic rice	The effects of fertilizer management on grain quality are not yet determined. Evaluation is still ongoing.

III. MAJOR MACHINES AND SYSTEMS DEVELOPED/IMPROVED FOR INCREASING EFFICIENCY IN PRODUCTION THROUGH LABOR SAVING, ALTERNATIVE/ RENEWABLE SOURCE OF ENERGY

Machines	Accomplishments
Prototype of crude and hydrous bioethanol distiller and power generating unit complete and ready for pilot testing	• Fabrication of prototype of crude and hydrous bioethanol distiller was completed and launched during the Lakbay Palay at PhilRice in April 2014 • Testing, evaluation and modifications were done on the prototype to improve performance.
Modification and improvement of the continuous flow rice husk gasifier	• Conducted 5 batches of drying in 2013 WS, 3 gasification tests in 2014 DS
Ride-on stripper combine	• Fabrication of header and other component parts, and jigs for the screw conveyor
Improvement of the Combine Harvester	• Field testing of previous model (1.3m combine harvester) on mungbean
Design and Development of a Village-Type Rice Silo to Reduce Storage Losses	• Conducted FGDs • Started fabrication of Silos
Design, Performance and Field Evaluation of a Downdraft Hydraulic Ram Pump for Irrigating Rice-Based Crops in Ilocos	• Identified 2 existing HRPs for improvement (Bacolod and Batangas) • Drafted profile data sheet for characterization of HRPs

IV. SOCIOECONOMICS, IMPACT AND POLICY RESEARCH

Impact evaluation, policy research, and advocacy measure the impacts of R&D on rice yield, farmers' income, and nutritional status of rice-based farming households to inform policymakers and donors, and help secure financial support for future R&D activities. Patterns and constraints to adoption, and social acceptability of rice R&D products are also analyzed. This provides feedbacks to R&D managers, scientists, and researchers toward improving technology development. With this information, PhilRice is in a better position to recommend appropriate policy actions toward the achievement of rice self-sufficiency, poverty alleviation, and improvement of the nutrition status of the population.

- **Palayabangan: The 10-5 Challenge (Cost and Returns Component).** There was one regional winner (able to achieve 10-5) and eight received consolation prizes (able to gain profit of at least PhP 80,000) in 2014 DS. The entry of Syngenta Philippines, Inc. in PhilRice-Isabela achieved 10-5 with a yield 10.54 tons per hectare (t/ha) with cost amounting to only PhP 4.94 per kilogram (kg). The eight participants awarded with consolation prizes were: LGU-San Mateo, Mr. Terte, Dynapharm, Mr. Jarvinia, Mr. Sevilleja, Pioneer, SL-Agritech, and Organic Resource Biotic Multi-Purpose Cooperative. The first five were from contestants from PhilRice-Isabela and the rest were from PhilRice-CES.

- ***Benchmarking Rice Economies in Asia – Philippines.*** At average age of 58, Filipino rice farmers are generally the oldest among their counterparts in 6 countries. They achieved 8 years of formal education though 64% of them have attended rice production-related trainings since 2008. They support a household with 5 members. Eighty-seven percent of Filipino rice farmers are male while 65% of them cultivate own land. Sixty-four percent are also members of organization. With an average yield of 6,344 kg ha^{-1}, PH ranked fourth in terms of land productivity. Its average price of 14.80 PHP ha^{-1} is the third least in the six countries. PH ranked fourth in terms of gross revenue at 93,902 PHP ha^{-1}.
    - Lower labor cost is the key factor why the other countries, especially the three exporters, were able to lower their cost per kilogram. Mechanization particularly that of harvesting and threshing plays a major role.
    - The use of direct seeding as mode of crop establishment in Can Tho and Suphan Buri also further the reduction in labor cost. On the contrary, about 79-99% of Nueva Ecija farmers transplanted rice, which required more labor. As a result, the annual labor productivity in Nueva Ecija is second to the lowest at 74 kg/man-day while that in Suphan Buri and Can Tho are 566 and 348, respectively.
    - The low usage of pesticides in Tamil Nadu is also a good practice that could be replicated. On average, Tamil farmers applied only twice per season. While Nueva Ecija farmers applied only five times in a season, it can be further improved to approach that in Tamil Nadu.
    - In terms of seeds, the use of hybrid varieties during appropriate season in Zhejiang led to their higher yield. Nevertheless, the use of hybrid was not able to lower the cost per kilogram in Zhejiang because of its labor-intensiveness

and higher use of material inputs. It must be noted that labor in China is increasingly becoming expensive because of their industrialization.

- Nutrient management is another area where we can learn from other countries. It was found that nitrogen productivity in Nueva Ecija is the third least among six sites. On average, only 46 kilogram of paddy is produced for every kilogram of nitrogen applied. This means that Nueva Ecija farmers were not able to maximize the potential yield during dry season (January-June) when palay is more responsive to nitrogen due to higher solar radiation.

- **Adoption of Crop Insurance in the Philippines: Lessons from Farmers' Experience.** Results revealed that adoption of insurance is generally low in all provinces. Only 10 percent of the total respondents have participated in a rice insurance program from 2007 to 2012. Among the three provinces, Nueva Ecija had the highest percentage of crop insurance adoption with 20 percent followed by Leyte with 5 percent. Iloilo respondents are least adopters of insurance with less than 3 percent adoption. About 68 percent of the farmers who participated in a rice insurance program have purchased the traditional type of insurance while 27 percent have experienced enrolling their crop under a weather based index insurance (WBII) program.

V. TRAININGS, BRIEFINGS, AND OTHER TECHNO-PROMO STRATEGIES

The Be RICEponsible Advocacy Campaign Accomplishment Report. Taking off from the National Year of Rice 2013, the Be RICEponsible is an advocacy campaign that aims to promote the RICEponsibility of every Filipino to their bodies and to our country for better health and rice self-sufficiency. Apart from the role of the farmers, it is informing the consumers and policy-makers on how they can help the country achieve rice self-sufficiency.

For consumers, the campaign called for four things (4Ks in Tagalog). First, it called for reduction or elimination of rice wastage (konti-konting kanin muna, para walang tira). The second is thanking and showing appreciation for our rice farmers (kilalanin at pasalamatan ang mga magsasaka) by literally saying thank you and by valuing every grain of rice on the plate. The third is eating of brown rice (kumain ng brown rice) which has 10% higher milling recovery and the fourth is mixing rice with other staples (kakaibang kanin naman). The third and fourth, while helping lower the demand for rice, are also promoting better health as these are healthier than plain white rice. Thus, they are not only good for the country but good for the individual as well.

Policy-makers were also targeted since they are crucial in making consumers RICEponsible. The campaign lobbied for an ordinance requiring the serving of half cup of rice and making it the default serving for plated meals to reduce rice wastage. We lobbied for this knowing that without complementary policies, the call to not waste rice would not be heeded by outside

diners especially since people would not normally force themselves to eat beyond what their appetites can take. Thus, the half cup of rice was suggested to give people more option – smaller rice denomination for those with smaller stomachs. This ordinance/bill do not only do good to the country but also to the consumers as they can also save by ordering half cup instead of ordering one whole and end up wasting half of it. Another resolution being lobbied to LGUs and congress is the serving of healthier rice such brown rice and rice mixes which would ultimately promote better health among rice consumers.

For farmers, the call was for them to feel proud of being farmers and to inspire them to produce even higher. Along with that, just as in the past, different efficient technologies and different forms and sources of farming information were promoted to help them improve their yield and income through the various bureaus and attached agencies of the Department of Agriculture (DA). And since these are but part of the mandates of different bureaus and attached agencies of DA, more focused was given to the consumption side as it is the first full-blown initiative to involve consumers in the achievement of the country's long-time goal to be rice self-sufficient.

The following is a summary of the campaign's accomplishments:

- **RICEponsible farmers.** Through the efforts of all DA offices - its regional offices, bureaus and attached agencies, International Rice Research Institute, leading seed companies and agri suppliers in the country together with east west seeds, we communicated the Be RICEponsible messages to farmers all over the Philippines through different trainings and events. We also exerted efforts to make them feel proud by asking all consumers to thank our farmers. We did that through different media – print, radio, TV and internet.
- **RICEponsible departments.** Through the support of different Department Secretaries (DILG, DepEd, DOTC) and Commissioners (NTC) to help disseminate and more importantly, promote the campaign messages to and through all their units and services, more people are now aware of the campaign. These departments and offices displayed the tarpaulin of the campaign during the National Rice Awareness Month in their buildings, recited the Panatang Makapalay (Rice Pledge) for consumers, and conducted related activities.
- **RICEponsible students.** Through the Department of Education, all students will soon know of the campaign, as they will be including it in the 10th grade curriculum for implementation in 2015. The Philippine Science High School System, by writing to DOST Secretary, also disseminated the campaign information to students. Different colleges and universities are also continually supporting the campaign by including it in their nutrition month activities, National Rice Awareness Month Activities, of other school events.
- **RICEponsible policy-makers.** We wrote to different local executives and legislators and asked their different associations to help promote the ordinances in support of the campaign, explaining how it might impact our rice industry. Based on the published articles alone, there are now 4 provincial ordinances and 14 city/municipal ordinances

on half cup of rice, and more than 20 more pending. For brown rice, there is one house bill and a number of pending resolutions.

- **RICEponsible travellers.** The campaign messages were communicated to the different travellers in the Philippines, from land, to air, to sea, to train travellers. This is by asking for the help of DOTC who issued a memo to all of its offices so that they would support the campaign. This facilitated and enforced our partnership with PPA for the promotion to sea travellers; MMIAA and different airports for promotion to air travellers; and LRT and MRT for train travellers. For land travellers, on the other hand, MACEA helped to reach tunnel passers in Makati; AFP used its LED TV in EDSA; and Quezon City Memorial Circle allowed the use of their 50 billboards around QC. All of these were for free.
- **RICEponsible texters.** The help of NTC was requested to communicate the messages to texters or mobile subscribers. They endorsed our request to major telecoms. Among our loyal partners were Sun cellular who sent Be RICEponsible messages to its millions subscribers per month; and Smart communications who promoted our advocacies also in their office.
- **RICEponsible televiewers.** With the help of NTC's and KBPs endorsement, the campaign video ads were shown in different TV stations and cable networks for free. There were also TV programs that featured the campaign and conducted short interviews.
- **RICEponsible radio listeners.** With the help of NTC's and KBP's endorsement, the campaign audio plugs and songs were also aired in different national and regional AM and FM radio stations for free. There were also radio programs that featured the campaign and conducted short interviews.
- **RICEponsible mothers.** Through the continuous help of CARD-MRI, which is one of the leading small micro-financers in the country, the campaign reached around 5M debtors who are mostly mothers.
- **RICEponsible spenders.** Through the help of Megaworld malls, Robinsons Malls, and Seven-Eleven, the advocacies reached the many mall-goers and shoppers.
- **RICEponsible museumgoers.** Through the different exhibitions at the Mind Museum, National Museum, and GSIS museum, the campaign messages were communicated to students and other museumgoers in a fun and creative way.
- **RICEponsible medical professionals.** Through the help of Philippine Hospital Association, Nueva Ecija Medical Society, and Philippine Medical Association, more doctors and hospitals are now promoting brown rice to their patients.
- **RICEponsible researchers/professionals.** Through the presentation and exhibits of the campaign during national conferences and conventions for free, more research and professional associations and offices are now supporting the campaign.
- **RICEponsible diners.** More diners are now aware of brown rice and rice-corn mix through the help of the Hotel and Restaurants Association of the Philippines, Megaworld mall, and Robinsons. Particularly, they served brown rice and rice mix as part of the NRAM celebration. They will also take part in the wastage research in food establishments.
- **RICEponsible netizens.** Through the campaigns social media accounts (fb, twitter, youtube, instagram) more netizens are now aware of the campaign advocacies

Training activities. Among other technology promotion strategies, PhilRice commonly uses training to develop the skills and enhance the capacities of its partners in the field. Through training, the adoption of rice and rice-based production technologies by farmers is enhanced. Training complements other promotion strategies and it reinforces learning. Over the years, PhilRice had proven the usefulness of training particularly to those that need some degree of specialization, accuracy, and precision.

For the year 2014, customized training courses including field days and were packaged and were implemented in close coordination and partnership with other divisions and stations.

Training activities conducted

Course Title	Date Conducted	No. of Participants
1. Rice Production Updates for Selected Farmers under the Farmer-to Farmer-Extension Approach	Februry 3-4, 2014	26
2. Farm Machinery Operations and Safety, cum PalayCheck System for Young Farmers	February 10-15, 2014	20
3. Training Course on Seed Testing and Quality Assurance in Hybrids	February 19-21, 2014	10
4. Seminar on Organic Rice Production for UMFI Staff	18-Mar-14	12
5. Lakbay- Aral for Universal Hrvester Inc. Farmer Benefeciaries	2-Apr-14	123
6. Training of Farmer Trainers on Farmer-to-Farmer Training Approach (1st Batch)Lubao, Pampanga	April 21-25, 2014	18
7. Training on Rice and Rice-based Technologies for Areas Affected by Typhoon Yolanda (1st Batch-UEP, Catarman, N. Samar)	May 1-8, 2014	42
8. Rice Boot Camp for Newly Graduates of Agriculture,and, Rice and related Sciences	May 5-6, 2014	23
9. Training Course on the PalayCheck System for DuPOnt Technical Staffers	May 13-15, 2014	31
10. Training of Farmer Trainers on Farmer-to-Farmer Training Approach (1st Batch) San Fabian, Pangasinan	May 5-9, 2014	12

11. Training of Farmer Trainers on Farmer-to-Farmer Training Approach (2nd Batch) Manaoag and San Jacinto	May 19-23, 2014	24
12. Training of Farmer Trainers on Farmer-to-Farmer Training Approach (2nd Batch Batch) Floridablanca, Pampanga	May 21-25, 2014	18
13. Training on Rice and Rice-based Technologies for Areas Affected by Typhoon Yolanda (2ndt Batch-VSU, Baybjay City, Leyte)	May 20-27, 2014	43
14. Appreciation Course on Rice Science and Technology for PhilRice' Non-Technical Staff	June 5 to July 10, 2014	23
15. Training Course on the Retooling Training cum Field Exposure for Agricultural Extension Workers (AEW's)-Rice in Region 5	June 23-24, 2014	21
	June 25-26, 2014	31
	Jly 2-3, 2014	21
16. Refresher Course for NISRIP RiceTechs (Agusan)	August 13-14, 2014	8
17. Crash Course on Tour Guiding Technique	26-Aug-14	16
	24-Sep-14	14
18. Refresher Course for NISRIP RiceTechs (CES)	September 10-12, 2014	6
19. Proficiency Examination for Laborers	22-Sep-14	263
20. Lakbay-Aral/ Rice Science and Technology Updates for Universal Harvester Inc. Farmer Beneficiaries	September 24-25, 2014	137
21. Technical Briefing for PhilRice CES Laborers	October 13, 2014	
22. Technical Briefing for PhilRice CES Laborers	November 11-13,27, Dec. 4-5 and Dec. 11-12, 2014	25
23. Rice Boot Camp for New Graduates of Agriculture and Related Sciences	November 17-28, 2014	26
24. Training Course on Seed Testing and Quality Assurance in Hybrids for Bayer CropScience Personnel	December 8-11, 2014	5

25. Training Course on Seed Testing and Quality Assurance in Inbred Production for PhilRice Staff	December 17-18, 2014	18

Field Days conducted, 2014

Station	Date of Field Day	Theme	No. of Participants
Agusan	October 16,2014	Sa IRBAS, Milyonaryo ka, Sakay Na!	1,106 farmers, seed growers, technicians, students, and other guests.
Batac	October 21-22, 2014	Maysa a Milyon Magun-odan no Kabarwanan a Teknolohiya Awaten ken Pagraranudan (One Million is Attainable if New Technologies are Adopted and Shared)	159 students, 630 farmers and other guests
Bicol	November 11, 2014	Iba-iba, Sama-sama, 1 Milyong Kita,Kayang-kaya!	250 farmers, technicians
Los Banos	October 23, 2014	Akmang Pagsasaka at Makabagong Teknolohiya, Susi sa Mas Mataas na Kita"	549 farmers, technicians and guests
Midsayap	May 28,2014	“Wais na Magsasaka, Hitik ang Kita.”	598 farmers, local officials, technicians
Negros	May 7 and November 25,2014	Intensive Diversity (DS) Prosperity in Diversity (WS)	250 & 473 farmers, technicians and guests, respectively.

Information, Education, and Communication materials. Primarily intended for extension workers and rice specialists, print and video materials were produced to increase awareness and knowledge on technologies generated by the Institute. Below is the list of materials published by PhilRice in 2014.

Summary of Knowledge Products Produced

Type	Quantity
1. Magazine • ASEAN Free Trade • Ripples of Change • Farmers' primer on production of quality inbred seeds • Creating a Farm of Abundance • Touches of Transformation • El Niño ay di na bago kaya natin 'to	5
2. Primer/Booklet • Kontroladong Pagpapatubig • Q&A Climate Change (Tagalog) • El Ni Niño ready varieties booklet	3
3. Leaflet/Brochure • Climate change leaflet (English and tagalog) • PhilRice Text Center Brochure • Riceponsable brochure (for farmers, consumers and policy makers) • Reduced tillage brochure • El Ni Niño ready varieties flyer • MOET Leaflet • STCBF Leaflet • Golden Rice leaflet (Filipino) • 40-kg certified seeds leaflet	12
4. Q&A • El Niño • Rice Biotech • Varieties and Seeds • Climate Change (English and tagalog) • Organic Fertilizer • Controlled Irrigation • Rice Biotechnology • Integrated Nutrient Management	9
5. Billboards • Gusto naming milyonaryo ka (2 concepts) • El Niño billboards (3 concepts)	5
6. Banners • Gusto naming milyonaryo ka (7 concepts)	7

Type	Quantity
7. Posters • Gusto naming milyonaryo ka (2 concepts) • Helpful organisms (2 concepts)	4
8. Technology Videos/Teasers • Gusto naming milyonaryo ka (5 concepts) • Be RICEponsible Logo Animation • Kumpyansa sa Sarili • Kaakibat na Teknolohiya • Infomediary Campaign Teaser • Nutri Rice Milk • Gusto Namin Milyonaryo Kayo Teaser • 2014 Gawad Saka Awardee: Dr. Manuel Jose Regalado • Hybrid Rice Growers Testimonials • Infomediary Best Practices • Riding type Teaser • Drumseeder Teaser • Combine harvester Teaser	18
9. Rice Science for Decision Makers • Rice Smuggling	1
10. Modules • Climate Change 101 • Climate Change Adaptation and Mitigation: Palayamanan • Climate Change Adaptation and Mitigation: Integrated Crop Management System	3
11. Rice Technology Bulletin • Patok na Hybrid • Saclob Rice Technobulletin • Methane Emissions Rice Technobulletin • Stemborer Rice Technobulletin • Carbonized Rice Hull Rice Technobulletin • Metarhizium Rice Technobulletin	6

A. SUPPORT TO OPERATIONS

CERTIFICATION INTERNATIONAL

AUDIT REPORT
Continuation Page

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Item #	Potential Non-Conformities (Stage 1 Audits only) /Observations/Opportunities for Improvement NB: For Stage 1 Audits potential non-conformities may result in the Stage 2 Audit being delayed or these becoming documented Non-Conformances during the Stage 2 Audit

Auditor: Romeo M. Ramirez

SURVEILLANCE AUDIT – ISO 9001:2008; ISO 14001:2004;OHSAS 18001:2007

Areas Audited:

- **March 04 –** Legal Compliance; Customer Feedback, Site inspection, Office of DED for Admin and Supply and Procurement Office
- **March 05 –** Management Review, Physical Plant Division

Audit Findings:

A. <u>Overall summary of findings in areas audited:</u>

Except for a few issues needing improvement, the overall implementation of the specified QESH policies, processes and controls were generally consistent with specified requirements of ISO 9001:2008, ISO 1400:2004, and OHSAS 18001:2007.

B. Audit summary and OFIs of areas audited

1. Legal and Other Requirements; Evaluation of Compliance

GPM-06 Rev. 06 was verified. Compliance with legal and other requirements was verified. Permits, reports (SMRs) were verified.

OFIs:

a) Quality-related laws were not yet included in the List of Applicable QESH Laws and Regulations.
b) It may be useful to define the specific responsible and accountable functions for legal compliance with regard to EMS-, OHS-, ERC-, and PDEA-related laws and regulations as well as for other applicable laws identified instead of merely "Process Owner"
c) The "Summary of Legal Requirements Compliance Schedule" is no longer practiced but was still required by the procedure.
d) Although monitoring of legal compliance was carried out, the status of compliance sometimes was lumped for different requirements being monitored, e.g. for discharge permit.
e) Records of evaluation of legal compliance need to show how compliance to permit conditions is being evaluated and compliance status monitored. e.g. Discharge Permit, Permit to Operated.
f) Actions to address exceedance in workplace total respirable dust to be formally documented. Standard was 5.0 mg/m3, actual was 7.0 at Supply Property Room, and 5.67 in Grd.
g) There's a need to clearly reflect in the SMRs submitted to reflect effluent quality and not only influent.

2. Customer Feedback / Customer Satisfaction Monitoring

The internal customer satisfaction survey was conducted quarterly per Division and summarized. Actions taken to address internal customer issues were verified. A Summary of Visitors Feedback was conducted for Jan-March 2013.

FOR NON-ENGLISH WRITTEN REPORTS ENGLISH TRANSLATION IS TO BE INCLUDED AGAINST EACH FIELD

Distribution: Original to Client, Copy to CI

RP1-1 Gen Rev 1.2

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OFIs:

a) The 2012 overall summary and analysis of customer feedback was much more comprehensive than the 1-page summary for 2013.
b) The external customer satisfaction survey covers only "visitors". However, it's not clear if these "visitors" surveyed are those that had any transaction with and who availed of the services of PhilRice.
c) It may be useful to analyse the responses given (by the "Visitors") and evaluate whether or not target level or index of customer satisfaction is achieved.

3. Site Inspection

Overall site upkeep was observed to be generally adequate. (Pls refer to the report of Mr. RJD and Mr. LDC for other details.

OFIs:

REM AREA

a) Oxy-ace gas cylinders in REM area were mostly not secured from potential toppling over.
b) The area is a fabrication area where multiple active hazards/risks abound. It may be useful to define minimum PPE requirement for this area of PhilRice.
c) Operational controls in the painting area need to be enhanced, such as adequate ventilation and fume control. The entire area and its operation need to be subjected to HIRADC.
d) The finished products of REM (e.g. tillers) do not have records of final inspection to demonstrate conformity to design criteria and provide evidence of operability and functionality.

RICE LAB AREA

e) The electrical panel was blocked at the time of audit.
f) There's a need to evaluate the workmanship and material quality of the electrical works in this panel. The conduit used was a water hose, not electrical-grade conduit or equivalent. The electrical tapping work exposed the 3 wires at the tapping point, defeating the purpose of concealing other parts of the electrical system.

4. Office of the Deputy Administrator for Administration (ODA)

The OPCR for 2014 was verified. This was the result of the workshops in Nov and Dec 2013.

OFIs:

a) It may be useful to define clearly in the OPCR the relevant objectives of the Deputy Executive Director for Admin that were cascaded to the Divisional and Sectional levels, instead of just defining the work of the ODA office.
b) OPCR objectives do not consistently bear measurable or quantifiable targets as basis of performance monitoring and measurement.

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Item #	Potential Non-Conformities (Stage 1 Audits only) /Observations/Opportunities for Improvement NB: For Stage 1 Audits potential non-conformities may result in the Stage 2 Audit being delayed or these becoming documented Non-Conformances during the Stage 2 Audit

5. Supply and Procurement Office

The OPCR for 2014 was verified. Records of transactions were verified.

OFIs:

a) Review and ensure that objective on compliance in ALL purchasing activities are clearly defined and practical to monitor and measure.

b) Ensure that the controls for reporting receipt of procured items as defined in the memo are effectively implemented.

6. Management Responsibility.

Please refer to the reports of Messrs. David and Del Carmen.

7. Physical Plant Division

The OPCR for 2014 was verified. Controls for the warehouse construction and plant maintenance activities were verified to be generally adequate.

OFIs:

a) The 2014 OPCR reflected specific tasks being implemented rather than measurable desired outcomes achieved through those tasks.

b) Current maintenance plans are focused only for PhilRice's water system, and none for civil, mechanical, electrical, plumbing/sanitary, grounds, emergency exits, toilets, and other maintenance aspects requiring either inspection or maintenance activities.

c) The current rate of defective emergency lighting was rather high. Although it was explained that two gen-sets were available to provide continuous lighting, there may be already a violation of the intent of the legal requirement for this equipment. Also, it's not clear if the gen-sets can still be effectively operated in case of occurrence of fire as usually electrical systems are cut-off to prevent further damage to the facility.

d) The ground inspection record needs to incorporate the identification / detection of EHS hazards/risks that needs attention from PPD or other appropriate function.

e) Consider recording the vehicle safety inspection done prior to any long trip, using BLOWBAGS criteria displayed in motorpool (for the vehicle) and safety checking of the condition of the driver (e.g. by disclosure of any potential threat to his effectiveness in driving such as over-fatigue, use of medicine that can be a downer, or prior consumption of intoxicating drink).

NC Report – Item 2 of RJD/RMR-01 SV1 – PPD: non-conduct of HIRADC assessment for the warehouse construction project.

-End of Report-