HIGHLIGHTS OF ACCOMPLISHMENTS
First Semester of 2014

1.5 Other Infrastructure and Postharvest Development Services

I. Postharvest Facilities Support Services

1. Agricultural Tramline System

2012 HVCC Budget

- Conducted site validation for the proposed agricultural tramline system
- Conducted coordination activities with Project Management Committee meetings with DA RFUs, LGUs
- Conducted regular monitoring and inspection of construction activities including the monitoring of operations, coaching/mentoring and documentation of tramline project’s utilization
- Conducted initial testings, debuggings, final inspections and testings
- Facilitated the conduct of 3 recipient’s trainings on the operation, maintenance and management of the tramline system
- Provided technical assistance for the turnover of 2 units (Claveria, Misamis Oriental and Josefina, Zamboanga, Del Sur)

50M Budget

- Facilitated the conduct of 2 recipient’s trainings on the operation, maintenance and management of the tramline system
- Provided technical assistance for the turnover over 3 units agricultural tramlines (Dolores, Quezon, Tublay, Benguet and Barotac Viejo, Iloilo)

2. Establishment of Modern Integrated Rice Processing Complex (RPC) in the Philippines (implemented as Foreign Assisted Project, funded by KOICA and DA-OSEC)

- Continued maintaining the four(4) postharvest facilities (RPC)
- Conducted orientation and consultations
- Conducted regular business coaching and mentoring
- Conducted Workshop on KOICA-RPC Assessment and Planning Workshop on February 18-21, 2014 in Cebu with 55 participants

II. Research and Development

For the period, PHiLMech implemented a total of 14 new and 16 ongoing projects. These projects aimed at coming up with technologies that could possibly reduce losses and improve quality of agricultural products. Research results from the completed projects can come in the form of technologies such as handling system for rice, high value commercial crops such as coffee, coconut, onion, cassava, and some fruit and vegetables including the processing system for mango, which can be promoted for wider utilization.

Regular Fund

New Projects

1. Development of Fully-Fluidized Bed Drying System for High Moisture Paddy
2. Pilot Testing of Improved Village-type Corn Mill (Phase 2) aka Pilot Testing of Improved Compact Corn Mill
3. Retrofitting of a Compact Rice Mill for Brown Rice Production aka Pilot-testing of Impact Huller for Brown Rice Milling
4. Expanded Field Testing of Mechanized Onion Sorter aka Development of Commercial Scale Onion Sorting Conveyor
5. Design and Development of Probe (Buriki) Meter for Moisture Detection of Selected Grains
6. Evaluation of Machines used in paddy production: Mechanical transplanter and Combine (Phase II)
7. Technical and Socio-economic evaluation of non-refrigerated storage systems for small-hold onion farmers
8. Effect of Ethanol Vapor in the Quality of Treated Broccoli
9. Toward Integrated Use of Biological Control Agents Against Insect Pest Storage: Ecological Studies and Efficacy of Single and Combined Use of Selected Biocontrol Agents
10. Field Evaluation of Biocontrol Agents in Managing Crown Rot Disease of Banana
11. Development of Starter Cultures for Enhanced Fermentation of Cacao Beans
12. Endophytic and Epiphytic Microorganisms as Biocontrol Agents of Black Pod of Cacao

On-going Projects

1. Evaluation of Cooking Qualities and Sensory Attributes of Parboiled Rice
2. Utilization of Biodegradable Composites Material in the Production of Fruit Bag
3. Ohmic Blanching of Selected Fruits and Vegetables
4. Utilization of Coconut Water Extracted from Matured Coconut
5. Utilization of Onion Solid Waste as Feedstock for Biogas Production (Phase I)
6. Development of a Pilot-Scale Processing System for the Production of Pectin from Mango Peels
7. Development of Web-based System and On-line Identification of Insects in Grains
8. Influence of Trichoderma Sp. In Preventing Postharvest Diseases in Shallot and Bulb Onions
9. Design and Development of Cassava Harvester
10. Toxigenic Potential of Fungal Species of Coffee Beans in the Philippines
11. Non-Chemical Approaches for Managing Postharvest Diseases of Tropical Fruits (Module 4-Papaya)
12. Identification of Wolbachia Endosymbionts in Storage Population of Philippine Psocids and Mites
13. Benchmark Studies on Postharvest Handling of Major Lowland Vegetables (a) tomato and bitter gourd; b) sweet potato and eggplant
14. Establishment of Benchmark Information on Postharvest and Mechanization of High Value Crops (aka Benchmark Studies: banana and onion)
15. Cataloguing of Fungal Cultures and Collection
16. Implementation of Quality Control Procedures in Microbiological Laboratory

1.6 Extension Support, Education and Training Services

- Regular Fund
- Training and Training-Related Activities Conducted

   Training of Trainers (TOTs)

a. Capability Enhancement Training for the Utilization of Feeds Pelletizer System for Organic Agriculture with 16 participants
b. Organic Rice Enterprise Development Training with 11 participants

c. 3 batches - Skills Training on the Operation, Maintenance and Management of the Tramline System (conducted on March 28, April 23 and 24, 2014) with 68 participants

❖ Other Training-Related Activities Conducted

- 1 - Skills training on the fabrication of Philmech developed technology
- 1 - Skills training on the Evaluation of Selected Agri-Machineries; May 5-9, 2014 @PhilMech Training Hall, Nueva Ecija
- 1 - Training Course on Agricultural Mechanization and PHT for SUCs. April 1-3, 2014, Davao City
- 1 - In-house Training of Philippine Technology Transfer Act of 2009 & Technology Disclosure and Basic Patent Drafting; April 29-30, 2014, PhilMech, Nueva Ecija
- 1 - Techno Talakayan on Mechanization & Postharvest (Anniversary) May 27, 2014 at PhilMech Training Center, Science City of Muñoz, Nueva Ecija
- 2 Batches on the Skills Training on the Operation, Maintenance and Management of the Tramline System
- 1 - National Consultation on the implementation of rice mechanization and organic agriculture programs
- 1 - National technical conference on Mechanization and PostHarvest Technologies

Needs Assessment meetings /Faculty Meetings

- 1 - Farmer Technologists (FTs) assessment workshop re Rice Mech Facilities May 20-23, 2014, at PHilMech, Nueva Ecija
- 1 - Training Needs Assessment meeting for Agricultural Rental Machine for Local Economy Development (ARMLED), on April 10, 2014 at PHilMech Executive Lounge.
- 1- Training Needs Assessment for Alarcio Rice Mill, Laoac Pangasinan on April 10, 2014 at PHilMech Executive Lounge
- 2 Faculty meeting on March 17, 2014 and on April 2, 2014; with a total of 16 participants

Techno demo

- PHilmech coffee depulper - 4 batches : Asipilo, Ifugao (March 4), Kiangan, Ifugao (March 5), Pila, Laguna (March 26), & Lipa, Batangas (March 27)
- Multi Commodity Solar Tunnel Dryer (MCSTD) – 3 batches : Del Carmen, Surigao del Norte (May 8), Tagbina, Surigao del Sur (May 6), & CocoaPhil, Davao City (April 4)
- Cassava Digger – 2 batches: Boac, Marinduque (June 4) & Boac, Marinduque(June 5)

Technical Assistance

- 5 Technical Assistance on PHilmech generated technologies to adopters, manufacturers and SUCs-
- 1- Technical assistance to officers and members of the Bekkel Coffee Growers Association in La Trinidad, Benguet on April 3-4, 2014. Replacement of worn-out rubber roll of the Coffee Ruber Huller
- 1 - Technical assistance for the users of PHilMech Coffee pulper in Sagada Mt. Province provided on April 1-2, 2014. Replacement of worn-out rubber-bib of Coffee pulper
- 1 - Technical Assistance on Rice & HVC
- 2 - Technical Assistance on Technology Licensing requirements1 - provided technical expertise on pinawa rice mill operation during monitoring with NOAB
- 1- tested and inspected facilities
- 1- acted as resource person during meetings on Organic Agriculture (OA) in organic agriculture
- 1- acted as resource person during meetings on OA
- 1- conducted briefing of PHiMech NOAP implementation to interested farmers associations
- 4- provided technical assistance (4x) to the project collaborators in the regional implementation of DA Rice Mechanization and Postharvest Program thru procurement, testing, evaluation, and debugging of rice mechanization facilities)

**Extension-related research and development activities conducted**

a. Development of Micro Enterprises Using the MCSTD
b. Intensifying the Promotion and Adoption of PHiMech Generated Technologies

**Extension-related Information & Communication Technology (ICT) conducted**

a. GIS-based Decision Support System for Postharvest Development and Mechanization

I. IEC Materials Produced/Disseminated

- 5,000 - Technokit with technoflyers
- 3,000 - Newsletter First Qtr
- 1,000 - Annual Report (on press)
- 1,000 – Infokit
- 1,000 – Technical Bulletin for MCSTD
- 1,000- Technical Bulletin For Mango Peels as Source of Pectin
- 3,000 - PH Notes
- 120 - Materials printed during exhibits
- 70 - Techno banners
- 5,000 - PHiMech Leaflets
- 3,000 – comics
- 1 - Billboard
- 250 - Printed Materials for Visitor
- 200 - materials prepared and distributed during exhibits
- 4 - audio visual media
- 11 - radio programs aired
- 1 - advertisement published
- 150 - electronic media

Prepared by:

**NORMITA A. PASALO, Ph.D.**

Chief, Planning, Management and Information Technology Division

Approved:

**REX L. BINGABING**

Director IV