

**Research and Development Activity Photos  
of  
Myanmar Rice and Paddy Traders Association**

**Presentation of Post Harvest Technology at Government Seed Farm**



Photo showing the presentation of Post Harvest Technology to Government Extension Staffs, Local Authority Personnels, Farmers and Traders at Thit Cho Government Seed Farm, Nat Ta Lin Township, West Bago Division in December, 2004.

**Discussion with farmers of Nat Ta Lin Township**



Photo showing Problem based analysis and Need and Opportunity Assessment of Farmers' practice on Post Harvest Operations in Nat Ta Lin Township, West Bago Division. (Feb 2005)

**Research on Hermetic Grain Storage System of Paddy, Brown Rice and Milled Rice**



Photo showing the research project on the Hermetic (Air-tight) Grain Storage System of Paddy, Brown Rice and Milled Rice by setting up into Volcanic Cube and IRRI Super Bags for one year duration at Thaung Win Engineering and Manufacturing, Hline Thar Yar Industrial Zone. (From Feb 2005 to Feb 2006)

## Research on Farm Level IRRI Super Bags Storage System in Farmer Households



Photos showing the inspection of farmers' storage on grain, brown rice and milled rice in IRRI Super Bags at Nat Ta Lin Township, West Bago Division by Mr. Martin Gummert of IRRI in Feb 2005. From that research, farmers can be able to know that if their grain has been properly sealed, those can be stored for long time until the next crop season without affecting the grain quality

and seed germination as they are free from insects, rodents, and moisture.

## Development of Low Cost Moisture Meter for farmers



Photos showing the prototype of Low Cost Moisture Meter that is developed as collaborative activity between IRRI-MRPTA and Trust and Development Co., Ltd intended to produce for farmers those who can be able to decide the grain moisture easily in post production processes like sun drying, grain storage and milling of their produce. The Japan made Kett type of Moisture Meter is cost about 300 US\$ where locally produced low cost Moisture Meter will be only 50 US\$.



## Assessment of present situation of Myanmar Rice Mills in Ayeyarwaddy and Bago Divisions



Photos showing the assessment of present situation of Myanmar Rice Mills in rice production system as fact finding activity in Feb 2005. The rice mills of West Bago and Ayeyarwaddy Divisions were inspected regarding their storage situations, milling functions, milling component parts and their efficiency, availability of spare parts, availability of energy sources, their market situation and economic conditions.

## Practical Hands on Training on Rice Mill Evaluation in Pathein, Ayeyarwaddy Division



Photos showing the Hands on Training on Rice Mill Evaluation that conducted at Pyawadana Private Rice Mill in Pathein, Ayeyarwaddy Division in May 2005, where the millers from Ayeyarwaddy, Yangon and Bago Divisions were attended. Mr Martin Gummert and Mr Eugene Aquino of IRRI Rice Engineering Unit gave the presentation on how to conduct the rice milling efficiency tests and practical exercises were done to evaluate the milling efficiency of the rice mill by the participants.

## Development of Flat Bed Paddy Dryer in Nat Ta Lin



Photos showing the preparation of Flat Bed Paddy Dryer before testing the drying efficiency of the dryer at Thida Ye Sin Rice Mill, Nat Ta Lin in May 2005. This Paddy Dryer is the first dryer developed under the supervision of MRPTA. After conducting the Efficiency

Assessment, it is shown that the fan efficiency is not enough to dry the targeted capacity and the further improvements in technology were needed to improved drying efficiency.

### **Development of IRRI Flat Bed Paddy Dryer for Small Scale Rice Millers**



Photo showing the development of IRRI Design Flat Bed Paddy Dryer with 1 t capacity for small scale rice mills like village level mills where they can afford only small investment and there is limitation in electricity. The design is very simple, very easy to maintain and fabricate with locally available materials. The heat source only requires rice husk which is freely available at rice mills.

### **Losses in Harvest Season, the only remedy is Paddy Dryers**



Photos showing the losses due to rain fall at harvest season in West Bago Division in Nov 2005 where the farmers have no drying facilities. Therefore they left the harvest panicles in the fields until the rain stopped. The grain quality became deteriorated accordingly as long as they left in the field. The quantitative and qualitative losses at that situation may be as high as 50%. The only remedy for that situation is Paddy Dryers. If they have dryers, those panicles can be threshed immediately and dried

simultaneously without affecting the quality.

### **Development of Commercial Paddy Dryers**



Photos showing the development of commercial scale paddy dryers for rice millers. The technology was obtained from Centre for Agricultural Energy and Machinery, Nong Lam University, Ho Chi Minh City, Vietnam as collaborative activity between IRRI and NLU. This is the first dryer unit of Vietnamese Design after coming back from NLU and constructed at Yadanar Mandaing Private Rice Mill, Zee Gone, West Bago Division in Feb 2006.

### **Collaborative Research Project with IRRI on Rice Market Survey in Myanmar**



Photos showing rice market survey of retail markets in rice surplus divisions (Ayeyarwaddy and Yangon Divisions) and deficit division (Mandalay Division) from Nov 2005 to Nov 2006. In this research, monthly price trends according to quality of rice were continuously studied for one year duration. The nature of price fluctuation in rice surplus and deficit regions will also be seen from the research project. In addition, the nature of customers' preference in choosing rice quality, factors those determining the price trend in Myanmar will also be studied as well.



## In-country Training on Laser Land Leveling System in Rice Production (April 20-22, 2006)



These Photos showing the activities of In-country Training on Laser Land Leveling System in Rice Production that held at Ye Kyi Village, Nat Ta Lin Township, West Bago Division. This is the collaborative activity between IRRI (International Organization), MAS of Ministry of Agriculture and Irrigation (Government Sector) and Myanmar Rice and Paddy Traders Association (Private Sector). There was 6 participants from Government Sector and 6 participants from Private Sector attended. People of rice producing countries became aware that the importance of Laser Land Leveling System. Farmers can get more financial return by long term investment in laser leveling as they can manage and save water level by minimal irrigation, can manage weed problems easily thereby saving labor, can get better crop standing and well uniform ripening of panicles, and so on. MRPTA will continue to develop laser land leveling as contract business for private entrepreneurs and farmers in future.

**In-country training on Post Harvest Management for Improved Quality of Seed and Grain (April 24 to 26, 2006)**



Photos showing the In-country Training on Post Harvest Technology in Improved Quality of Seed and Grain, that held at Central Agricultural Research and Training Center (CARTC), Hlegu Township, Yangon Division. Total of 23 participants, 13 from Myanmar Agricultural Services (MAS), Ministry of Agriculture and Irrigation, 7 from Myanmar Rice and Paddy Traders Association and 3 from Myanmar Rice Millers Association were attended. The objectives

of training includes: The participants are able to-

- understand different options for postharvest operations and management,
- describe the quality traits of rice seed and grain,
- determine the quality traits of rice seed and grain using the IRRI quality kit,
- operate different drying systems sample and monitor the drying process



- set-up hermetic storage systems for storing rice seeds and grains, and
- operate different milling systems and determine milling quality.

**Presentation of Post Harvest Technology and Low Cost Paddy Dryer to Press and Reporters of Local and Foreign Media, Farmers, Traders and Local Authority of Ye Ta Shae and Taung Ngoo Townships, East Bago Division (May 2006)**



Photos showing the display of low cost paddy dryer to local and foreign press and reporters of Journals, Newspapers those touring around Ye Ta Shae Township, Taung Ngoo District, East Bago Division organized by Ministry of Information in May 12, 2006. The presentation on post harvest technology was also held at Pyi Soke Village of Ye Ta Shae Township on that day, where farmers from Pyi Soke, Inn Gyin Gone and Hman Si Villages were attended on that occasion. On the next day, the presentation on post harvest technology and demonstration of low cost paddy dryer was conducted at Sake Phoo Taung Village, Taung Ngoo Township. The farmers from Sake Phoo Taung and nearby villages and local authority personnel were attended.



## Photos of Training on Drying Technology and Dryer Fabrication in Nong Lam University, Ho Chi Minh City, Vietnam



Photos showing the training on drying system and dryer fabrication that held at Nong Lam University, HCMC, Vietnam, where the participants from Myanmar, Laos, Cambodia were attended. The training objectives include the participants have to be:

- able to understand the concepts of drying technology and types of grain drying methods and dryers those widely used in Vietnam
- able to understand the components of grain dryers and how to construct and fabricate those components properly
- able to understand the trouble shootings, maintenance and efficiency assessment of fan of widely used paddy dryers in Vietnam