

APART: RICE WEEKLY (14th-19th Dec, 2020)

Field day & Demonstration on Post-harvest machineries at LCD plot

During the week of 14-19 Dec 2020, total three number of field days along with one demonstration on Post-harvest machineries were conducted at Goalpara. Out of the three field days one field day programme merged with demonstration on Post-harvest machineries was successfully conducted at LCD plot of Stress tolerant rice variety, Ranjit-Sub1 on 14th Dec, 2020 by the APART team of HRS-AAU, Kahikuchi at Bijoypur village of Rongjuli Development Block in Goalpara district. On the same day two more number of field days were conducted at Dhantola Pt I village in the same Block. Interestingly, presence of approximately 110 farmers (both male and female) made the programme more exciting and valuable among the farmers and youth of village towards agriculture. In the field day programme farmers were made aware about different STRVs, their features and importance, role of mechanization in rice cultivation etc.



Beside this, under the Post-harvest machineries demonstration technology like Reaper, Digital Grain Moisture Meter, IRRI Superbag etc., were also shown by the APART staff to the participants. Crop cutting activity was also done by using Reaper. The final average yield of the above demonstration was found to be 5.5 ton/ha (18 mon/bigha). The clubbed programme of field-day, training and demonstration on Post-harvest machineries was successfully completed at the rice field of Abubakkar Sidhik and Lakshman Roy.

The main points which were discussed during all the training programmes were:

- Role of mechanization in rice-based cropping systems.
- Post-harvest losses at every stage of post-harvest operation and how to minimize them.
- Uses and efficiency of IRRI super bag for storing farm seeds.
- Uses of digital grain moisture meter at field level.

Rice Knowledge Bank Usage Training

On 17th Dec, 2020, usage training on Rice Knowledge Bank for *Boro* season, 2020-21 was conducted at Agia, Goalpara. The programme was organized by the APART staff of HRS, Kahikuchi. retired Principal Scientist of HRS, Kahikuchi Dr. Ayub Ali Ahmed (Agronomy) was invited as the Chief Resource Person for imparting training to the participants. Moreover, Dr. Jayanta Kr Sharma (Senior Scientist, HRS, Kahikuchi) and Mr. Jyoti Bikas Nath (IRRI, Communication Specialist) were also present as resource persons in the training programme. More than 30 farmer participants from different development blocks of Goalpara district attended the training. The training was initiated with an interactive session between the farmers and the resource persons, which included discussion basically on the hurdles and problems faced by the farmers in rice farming and the ways to overcome those. The Chief Resource Person Dr. Ayub Ali Ahmed, delivered knowledge related to rice based cropping sequence and cropping pattern to the participants. Similarly, Dr. Jayanta Kumar Sharma provided valuable information to the farmers related to the use and importance of adopting STRVs, use of recommended dose of fertilizers in the rice fields followed by role of mechanization in the rice value chain from transplanting to harvesting and threshing which can increase the farm production and thereby income.



Contributor : Priyanka Das (PA, APART),HRS, Kahikuchi



Communication Specialist - IRRI, Mr. Jyoti Bikas Nath imparted training on the use of Rice Knowledge Bank (RKB) Portal Website and elaborately discussed about the sections the portal contains. In addition, he also disseminated valuable information about formation of FPCs and selling paddy at Minimum Support Price (MSP) at Paddy Procurement Centres (PPCs) along with the specifications required. The farmer participants were motivated by the training imparted by the resource persons. The training programme concluded with the vote of thanks from the APART staffs Priyanka Das (PA), Dibakar Mohodi (APS), Bhaskar Boruah (RT), Anurag Khound (RT) and Ashrafah Ahmed (RT).



Ground truthing/GPS points collection of Kharif Rice/non-rice in Barpeta, Kamrup Rural, Nalbari and Goalpara districts of Assam



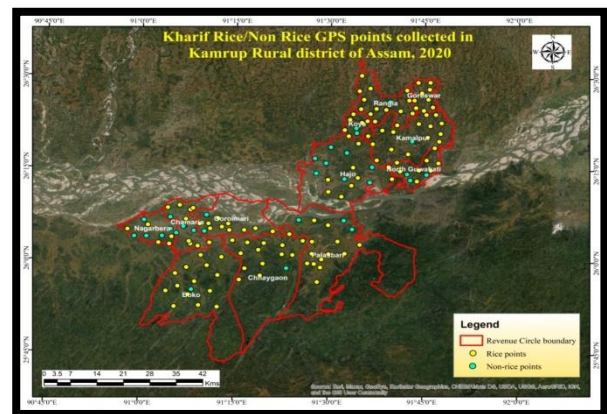
Collection of GPS locations, by GIS team, showing mass harvesting by women farmers and interaction with black gram field farmers

A total of 470 GPS points were collected from the allocated four districts, where 348 were rice and 122 were non-rice points. Around 470 villages were covered where information about paddy cultivation including variety, sowing, transplanting and harvesting dates, crop stage, etc. were collected from the farmers during the interaction. The survey formats also included information regarding flood stress (frequency and duration) and insect-pest/ diseases incidence information at various stages of crop growth, from the field sites. Most of the farmers who were interacted with, were having rice as the major crop but some other crops like black gram were also noticed during the survey.

The main objective of the survey was to identify the areas where farmers practice mono-cropping system (*Sali-fallow*, *fallow-rabi/Boro/Ahu*), double cropping system (*Sali-Boro/rabi*) and *Aqua-Boro* (fishery followed by *Boropaddy*). The cropping system patterns were different in different villages and it also varied among the surveyed districts. These points will be used for verification of various remote sensing products developed under APART as well as input for developing cropping systems maps for increasing accuracy.

Contributor : Giti Deka, APS, GIS-APART, Guwahati

Geographic Information System (GIS) and Remote Sensing is an important component in IRRIs supported activities under APART through which mapping and various analysis is done using data from satellite sensors. After developing different maps such as flood area maps, rice area maps, rice-fallow maps, moisture availability maps, paddy-fish suitability maps, drought area maps, biotic stress area maps, etc., using different satellite images and tools, it is very important to validate these maps by ground truthing for estimating accuracy of the outputs before further adoption by the policy makers. In this regard the ground truthing survey was conducted from 1st November, 2020 to 12th December, 2020 by the GIS & RS team under APART. Different districts were allocated to the different team members located at Guwahati and Jorhat. Ms. Giti Deka and Mr. Rajkumar Pratah Likhok (RT, GIS) were assigned four districts viz., Barpeta, Kamrup Rural, Nalbari and Goalpara to collect *kharif*-rice and non-rice field points. The field survey was done using handheld GPS receivers for locations and survey forms in Kobo Collect mobile app.



GPS points depicted on the district map of Kamrup



Field day on Learning Centre demonstration along with crop cutting, APART, RARS, Titabar



A field day programme was organised at Borjan village, Golaghat district on December 17, 2020 at Learning Centre Demonstration (LCD) plot, variety Ranjit-Sub1 under APART. The programme was attended by Dr. Tapan Jyoti Ghose, Chief Scientist, RARS, Titabar; Dr. Rupam Borgohain, Nodal Officer, APART, OPIU-AAU; Dr. Ajay Kumar Medhi, Principal Scientist, Crop Physiology-cum-farm manager, RARS, Titabar; Mrs. Mayuri Baruah, Junior Scientist, Entomology, RARS, Titabar; Ms. Jutika Das, Project Scientist, APART, Jorhat; Mr Devamitra Tarafdar, Project Associate, APART, RARS, Titabar and Mr Rajib Sahu Research Technician, APART, RARS, Titabar. A total number of 64 farmers (both male and female) participated in the field day. The event was inaugurated by Dr. T.J. Ghose and he shared the importance of mechanization in paddy farming and motivated the farmers to decrease cost of cultivation by use of machines and raise their production. Dr. A.K. Medhi described the participants the motive of the event and also discussed about improved paddy farming practices.

Dr. R. Borgohain spoke at length about APART. In his speech he described how the project is targeting to raise not only the farmer's production but also to improve the farmer's economic status by establishing a link with the business sector for the supply of their production. An interactive session took place with the farmers where the questions raised by the farmers were answered by the scientists present. Mr D. Tarafdar explained in detail the process of procurement facilitated under the project for both the direct and indirect beneficiaries.

After the in-house session, the APART personnel along with the farmers visited the demonstration field for a crop cutting session. Mr. R. Sahu carried out the crop cutting with the help of the farmers. During the crop cutting programme, various parameters of the crop such as plant height, total biomass yield, grain yield, straw yield, grains/panicle, test weight etc were recorded by the APART staff. The average yield of the particular plot was found to be 5.7 t/ha.



Training and Demonstration on Post-Harvest Machinery, APART, RARS, Titabar, AAU

A training as well as demonstration on post-harvest machineries were conducted at RARS, Titabar on 9th December, 2020 under APART. The programme was attended by Dr. Tapan Jyoti Ghose, Chief Scientist; Dr. Bubul Chandra Das, Principal Scientist, Plant Protection; Dr. Pradip Chandra Dey, Principal Scientist, Crop Physiology; Dr. Ajay Kumar Medhi, Principal Scientist, Crop Physiology-cum-farm manager; Dr. Rituraj Saikia, Junior Scientist, Entomology, all from RARS, Titabar; Mr. Saurajyoti Baishya, Specialist Post-Harvest and Rice Value Chain, IRRI; Ms. Ankita Sahu, Junior Researcher, IRRI, Mr. Devamitra Tarafdar, Project Associate, RARS, Titabar and Mr. Rajib Sahu, Research Technician, RARS, Titabar. A total of 53 number of farmers including male and female, participated in the event. The event was inaugurated by Dr T.J. Ghose. After greeting the participants, Dr Ghose discussed about various ways through which the farmers can progress and raise their income. Mr. D. Tarafdar described about the objectives of the event in brief. Dr. A.K. Medhi briefed about the activities under APART and how the farmers can be benefitted under the project. Dr. P.C. Dey informed the participants about the importance of modern farming techniques and how mechanization can reduce the problems faced by the farmers. In the interest of the farmers, Dr. B.C. Das suggested some techniques by which the farmers could control various insect-pests and diseases. During the demonstration session, Ms Ankita Sahu demonstrated the use of IRRI super bag for storing grains and Mr. S. Jyoti Baishya demonstrated the working of axial flow thresher. The usage of reaper was shown by Mr. R. Sahu by cutting a section of paddy plot in the presence of IRRI experts and scientists from RARS, Titabar. At the end of event the participants (farmers) were very pleased and provided positive feedback regarding the machineries.



Contributor (for both articles from RARS, Titabar): Mr. Devamitra Tarafdar, PA, APART, RARS, Titabar.

Rice Knowledge Bank Usage Training under APART, KVK, Darrang

The Rice Knowledge Bank (RKB) usage training under APART, was successfully completed on 18th December, 2020 at Youth Club, Mangaldai, by Krishi Vigyan Kendra, Darrang. The session started with a welcome speech by Dr. Abdul Hafiz, Sr. Scientist and Head, KVK, Darrang. He urged the farmers and extension functionaries to follow proper Package of Practices (PoP) and reduce the use of chemicals in crops. Mr. Jyoti Bikash Nath, IRRI Specialist, continued the programme by discussing about the various uses of Rice Knowledge Bank (RKB) in Assam.



He enlightened the participants about how the farmers through internet can get access to RKB website and know about the rice varieties, production practices etc. Mr Sibasish Sarma, District Agri Marketing Coordinator (DAMC), Darrang, discussed about the process of paddy procurement under APART. He also informed on the process of getting the certificate from the Department of Agriculture for paddy quantity which can be sold at the Paddy Procurement Centres (PPCs) on MSP. Ms. Barsri Baro, Project Associate; Ms. Leedarin Teronpi, Assistant Project Scientist, APART; Ms. Abhilasha Koushik Borthakur, PA (Agri.), Mr. Kushil Gogoi, Research Technician, Mr. Rana Gogoi, Research Technician were also present in the event. The programme ended with a vote of thanks by Dr. M.K. Chauhan, SMS in Soil Science and i/c APART.

Contributor :Leedarin Teronpi, APS, APART, KVK, Darrang