



APART RICE WEEKLY

September 6-11, 2021

Published By: ARIAS Society

**Contributions from: KVKs, RARSs, HRS,
District ATMs, IRRI Assam**



APART: RICE WEEKLY **(September 6-11, 2021)**

Two-day training with CHC/FPC on Direct Seeding of Rice & Integrated Weed Management, KVK, Nagaon

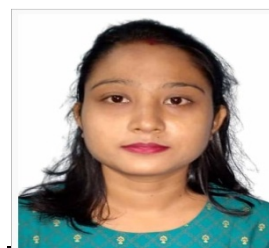
On September 9-10, 2021, a two-day hands-on training on Direct Seeding of Rice and Integrated Weed Management was organized by KrishiVigyan Kendra, Nagaon in collaboration with International Rice Research Institute under Assam Agribusiness & Rural Transformation Project. A total of 30 members from Custom Hiring Centre/ Farmer Producers Company viz., Dhansiri & Shankar Azan Agro-producer Company Ltd. of Karbi Anglong & Nagaon districts each respectively were present in the training.

On first day, the training started with a welcome address by Dr. N. Deka, Head, KVK, Nagaon. In his speech he briefly stated the objective of the training. The main objective of the training was to create master trainers amongst the CHC members. Dr. Suryakanta Khandai, Postharvest Specialist, IRRI and Mr. Vipin Kumar, Agronomist, IRRI carried out the classroom session, where they discussed about the machines in relation with direct seeding of rice such as Seed-cum-Fertilizer drill, Drum Seeder, Power Weeder-cum-Harvester, and Battery-operated Power Sprayer. As a resource person, Mr. Pallab Sinha from Andres Stihl Company demonstrated the Drum Seeder, and Power Weeder in front of the participants.



On the second day, Dr. Suryakanta Khandai, Associate Scientist, Postharvest & Rice Value Chain - IRRI carried out a theory class on Process of Integrated Weed Management where he mentioned about integration of all the methods which include spraying of pre- and post-emergence herbicide, manual weeding, mechanical weeding, and their advantages. Mr. J Biswal, Research Technician IRRI, demonstrated the seed-cum-fertilizer drill machine and battery operated power sprayer in front of the trainees. All the participants were actively involved in the demonstrations. The training ended up with a vote of thanks.

Contributor: Bidisha Borah, APS, APART, KVK Nagaon



Two-Day Training on Resource Efficient Crop Establishment Methods with Best Management Practices of Rice Conducted at Goalpara by HRS, Kahikuchi

Under the Assam Agribusiness and Rural Transformation Project (APART), a two-day training (IRRI Objective-II) on Resource-Efficient Crop Establishment Methods with Best Management Practices of Rice was organized by Horticultural Research Station, Kahikuchi at DATC, Goalpara on Sep 9-10,, 2021. Nearly 30participants comprising of ATM, BTM, FPC members, progressive Farmers attended the program. Experts from multiple disciplines under agriculture namely Dr. Ayub Ali Ahmed (Retd. Principal Scientist, Agroforestry), Mrs. Ranjita Bezbaruah (Junior Scientist-cum-APART In-charge, Agroforestry), Dr. Nirmal Mazumdar (Principal Scientist, Plant Pathology), Mr. Hari Charan Kalita (SMS, Soil Science) and Mr. Mridupaban Mudoi (Junior Researcher, IRRI) were invited as Resource Persons for sharing their knowledge on different topics supporting the core objective of the program.

The program started with the welcome address by Ms Priyanka Das (PA, APART) followed by felicitation ceremony. Mr Bhaskar Jyoti Mahanta (Project Coordinator, OPIU, APART) invited as Chief Guest interacted with the participants and presented a brief overview of the components and key objectives under APART. He also discussed about the importance and adoption of STRVs provided under APART over the traditional and locally adapted farmer varieties. Following this, District Agricultural Officer, Goalpara (Mr Prsantajit Bora) addressed the participants and presented his views on the technologies fostered through APART since 2018 to support the farming community, and thereby the success achieved. Later, Dr. Ayub Ali Ahmed explained in detail about the mechanism of submergence tolerant rice varieties distributed under APART viz., Ranjit-Sub 1, Bahadur-Sub 1 and Swarna-Sub 1 to tolerate flood or submergence upto 12-15 days.



He also discussed about the benefits of macro- and micro-nutrients in rice growth and development and also marked the ill-effects that may develop as a result of deficiency/toxicity of these elements. Further, he described in detail several other factors which lead to postharvest losses in rice, and also suggested the measures to combat these losses. Mr. Mridupaban Mudoi then carried on the next session on Integrated Weed Management followed by detailed explanation on several mechanical crop establishment methods of rice. He explained about different types of weeds like grasses, sedges and broad-leaved weeds, and categorized the three types on the basis of shape and size of leaves, type of veins and cross-section of stem. He mentioned that out of the three types, sedges are tough to control as they have the capacity to remain dormant and may reappear even after a period of 6-7 years. He then gave different examples of grassy weeds in rice fields like *Echinochloa crus-galli* which produces 80,000 seeds/plant and is very difficult to control.

Mr. Mudoj then explained about the different methods included in Integrated Weed Management i.e., physical (hand weeding/mechanical weeding), cultural (fallow management, good land preparation, dust mulching, water management), biological, and chemical (pre- and post-emergence herbicides). Most importantly, he mentioned that the best time to control weeds is during 30-40 days after transplanting which is the critical stage because at that time there is tough competition between weeds and rice for several factors.



He then explained the concept of Direct Seeded Rice and its advantages over traditional method of broadcasting, and also discussed mat-type nursery preparation to facilitate mechanical transplanting of rice, and advantages of MTR over traditional method of transplanting. The session for 1st day ended with the brief summary presented by Mr Dibakar Mohodi (APS, APART) on several topics covered by the resource persons. Second day of training began with the welcome address by Dibakar Mohodi and the recapitulation of 1st day proceedings. Next, Dr. Nirmal Mazumdar addressed the participants by delivering information on Integrated Pest Management practices.

Dr. Mazumdar discussed in detail about the symptoms and the level of damage caused by major diseases and pests of rice prevalent in Assam, and the control measures which should be adopted to prevent the loss. He then briefly explained about the different components of IPM which include adoption of resistant genotypes, cultural and mechanical practices, use of predators and parasitoids, pest surveillance and monitoring (Physical and pheromone), bio-pesticides (microbial compositions) and limited usage of chemical pesticides (only when pest population surpasses the ETL). Mrs Ranjita Bezbaruah and Mr. Hari Charan Kalita together explained in detail about Integrated Nutrient Management. Mrs. Bezbaruah discussed about the different components of INM that include green manure (Sesbania), organic manure (FYM, Vermicompost), mineral fertilizer, bio-fertilizer (Azospirillum, Azotobacter). She also mentioned about the preparation and advantages of biodynamic compost. She provided knowledge on enriched compost like using Azolla in vermicompost to enhance the nutrient value of the compost. Moreover, she described about the different bio-fertilizers that can be used for fixing the atmospheric nitrogen through symbiotic relationship and making available to the plants e.g., Azospirillum can be used for nitrogen fixation in rice crops. Likewise, she also mentioned that phosphate solubilizers can be used as bio-fertilizer for solubilizing inorganic phosphate for making it available to plants. Mr. Kalita further explained to the participants about the importance of availing soil health cards and also provided the knowledge on nano-Urea. The participants showed great interest throughout the session of lectures covered under the two-day training. The program ended with vote of thanks by Miss Priyanka Das.

Contributors:



Miss Priyanka Das (PA, APART, AAU-HRS, Kahikuchi)



Mr. Dibakar Mohodi (APS, APART, AAU-HRS, Kahikuchi)

Training on Quality Seed Production under APART, RARS, Titabar

A one-day quality seed production training program was organized at Urongial village, Titabar by Regional Agricultural Research Station, Assam Agricultural University under the World Bank sponsored 'Assam Agribusiness and Rural Transformation Project' (APART) on Sep6, 2021. The training program was attended by resource persons from Regional Agricultural Research Station AAU, Titabar and International Rice Research Institute (IRRI). Dr Ajay Kumar Medhi (Principal Scientist, RARS, Titabar), Mrs Mayuri Baruah (Junior Scientist, RARS, Titabar), Dr. Rahul Priyadarshi (Specialist Agriculture Research and Development, IRRI), Miss Ankita Sahu (Junior Researcher, IRRI); Mr. Devamitra Tarafdar (Project Associate, APART,RARS, Titabar) and Mr RajibSahu (Research Technician, APART, RARS, Titabar).



The training program was attended by 37 female and 15 male farmers. The program was initiated by Mr Devamitra Tarafdar. He described the objective of the APART project in details such as popularization of Stress Tolerant Rice Varieties (STRVs) like Ranjit-Sub1, Bahadur-Sub1 and Swarna-Sub1 and the advantages of these varieties over local varieties. He mentioned that these Sub1 varieties can survive up to 15 days under complete submergence. Success stories about the STRVs in different parts of Assam were told to the farmers. Further, he added how the farmers can reduce their cost of production and increase productivity with the help of modern machineries introduced to the farmers under APART and how the quality seed leads to better productivity of rice was elaborated to the farmers by Dr Ajay Kumar Medhi. He also informed the farmers about the steps to be undertaken for seed certification program. Dr. Rahul Priyadarshi described the different steps and procedures to be followed during quality seed production which would finally lead to an increase in rice production by 20%. Insect-pest control, an important aspect of quality seed production was described by Mrs Mayuri Baruah and she explained the proper use of appropriate pesticides and their dosage for controlling pests in rice fields.

During the last session of the training Miss Ankita Sahu demonstrated the procedures of quality seed production practically to the farmers. She also showed the farmers the technique of seed treatment and the appropriate usage of organic manure and chemical fertilizers. At the end of the training, the farmers gave positive feedback regarding the knowledge they gained throughout the entire training process, and how it will help them in better cultivation in the coming days.

Training and Demonstration on Postharvest Machinery under APART, RARS, Titabar

A training along with demonstration program was organized at Ajay Nagar village, Titabar by Regional Agricultural Research Station, Assam Agricultural University under the World Bank sponsored 'Assam Agribusiness and Rural Transformation Project' (APART) on Sep 9, 2021. A total number of 50 female farmers from Titabar Patmuga FPC participated in the event. The program was attended as resource person by Mr Devamitra Tarafdar, Project Associate, APART, RARS, Titabar; Miss Ankita Sahu, Junior Researcher, IRRI; Miss Jutika Das, Project Scientist and Mr Rajib Sahu Research Technician, APART, RARS, Titabar.



The training program was inaugurated by Mr D. Tarafdar who described about the objectives of the project to the participants. He further discussed about the working procedure of Custom Hiring Centres (CHCs) and their advantages. A tentative date was drawn from the discussion to open up a CHC by the FPC under the guidance of RARS, Titabar. Miss J. Das gave a brief overview of the aim of the training. The training-cum-demonstration was given by Miss A. Sahu where she described about the various modern machineries available under the APART. Numerous machines required from sowing till postharvest were demonstrated by her. The participants were very much pleased and hopeful that these machineries can help them in increasing their production at a lower cost when it will be available to them.

Contributor: Mr. Devamitra Tarafdar, Project Associate, APART, RARS, Titabar



Two-Day Training on Direct Seeding of Rice & Integrated Weed Management for Strengthening the FPCs on Rice Value Chain

On Sep 7-8, 2021, Krishi Vigyan Kendra, Jorhat organized a two-day training program on "Direct Seeding of Rice and Integrated Weed Management" for Strengthening the FPCs on Rice Value Chain through mechanization under Assam Agribusiness and Rural Transformation Project (APART). The training program was organized for the FPC members under APART of Jorhat and Sivasagar districts. The Board of Directors (BODs) of two FPCs, namely Rupohi Dugdha Samabaya Samiti, Sivasagar and Jajiporiya Agri-Horti Farmers' Producer Company, Jorhat, were present. On the first day the training program was inaugurated with a welcome address by Sanjib Ranjan Bora, Head KVK Jorhat. The technical session was started by Mr. Vivek Kumar, Specialist IRRI and Ms. Ankita Sahu, Junior Researcher IRRI, continued with the technical session.

The technical session was on Direct Seeding of Rice, the advantages of Dry Direct seeding and Wet Direct seeding, and what are the different machineries which are used for this technology, was discussed with the participants. There was a detailed discussion on Seed-cum-Fertilizer Drill and Drum Seeder. The participants were given hands-on training on these two machineries and the complete calibration of the machineries was shown to the participants by Mr. Pradyumna Srichandan, Research Technician IRRI. On the second day, the training program started with technical discussion on Integrated Weed Management. There was a detailed discussion on cultural, mechanical & chemical methods of weed control, different spraying techniques and the mechanism of different spray nozzles. After the technical session, a hands-on training on Power Weeder-cum-Crop Harvester was arranged by STIHL Company Technician Mr. Gojen Dutta. He explained on how to use, repair and assemble the machine, and how to keep the machines in good condition after using in the field. The whole programme was coordinated by Kasturi Goswami, APS KVK, Jorhat and Plaban Debraj, PA KVK, Jorhat.



Contributor: Ankita Sahoo
Junior Researcher, IRRI

Two-day Training on Direct Seeding of Rice and Integrated Weed Management under APART, KVK Kamrup

Krishi Vigyan Kendra, Kamrup in collaboration with International Rice Research Institute (IRRI) organized a two-day training programme on “Direct Seeding of Rice” and “Integrated Weed Management” at KVK Campus on Sep 7 and Sep 8, 2021, respectively. 10 BODs each from two Farmer Producer Company (FPCs) namely Uttaran Krishi Producer Company Ltd., Rangia and Reetnapith Farmer Producer Company, Goalpara participated in the training program. Dr. Dharendra Nath Kalita, Head KVK Kamrup inaugurated the training program. Ms. Komedy Chamua (APS APART, KVK Kamrup) welcomed the members from two FPCs. Dr. Vipin Kumar Singh, (IRRI Specialist), Dr. Kasturi Goswami, (Junior Researcher, IRRI) from International Rice Research Institute, were present for providing technical guidance during the whole training program



Mr. Pallab Sinha (Company Engineer) demonstrated about the functioning and maintenance of different machines. Mr. Govind Singh, (RT, IRRI), Mr. Arup J. Kakoti (RT, APART KVK Kamrup), Bhaskar Baruah and Ashraf Ahmed (RT, APART, HRS, Kahikuchi) helped in smooth conduction of the program. On the first day, the trainees were first given pre-evaluation test to know their knowledge status about direct seeding of rice. In the 1st session, they learnt theoretically about direct seeded machines for wet bed and dry bed land preparation for paddy and identification of different weeds they encountered in rice fields.

Mr. Sinha demonstrated the working, repairing and maintenance of power weeder. The participants were advised to identify and collect different narrow leaf, broad leaf and sedge type weeds from the rice field where all the participants correctly differentiated the weeds. On the second day of the training program, the trainees learnt about the calibration and usage of multiple nozzle power sprayer. The working and installation of the drum seeder was demonstrated during the program. The trainees also learnt about the installation, repairing and functioning of multi-crop planter along its depth and spacing adjustment for different crops. At the end of the training program, a test was conducted to evaluate their knowledge from the training where all the participants gave fruitful results. The event helped the members of FPC to understand about the installation, working, and maintenance of different machineries. The participants were highly encouraged and showed positive feedback.

Contributors:



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