



Wet DSR with Drum seeder

Custom Hiring Center (CHC)

Custom Hiring Center is a unique platform where different farm machineries are made available to small and marginal farmers on rent basis. Under APART, 49 CHCs have been established which are fostering the farm mechanization in the state.

Rice Knowledge Bank (RKB)

RKB is a digital extension platform (app and website) that provides practical knowledge solution to the farmers and extension functionaries on rice value chain. It is available in 4 languages (English, Assamese, Bodo and Bengali). It can be installed on mobile from Google play store or can be browsed at www.rkbassam.in



Mechanical Transplanting of rice

Rice Doctor (RD)

Rice Doctor is a diagnostic tool that aims to assist extension advisors and farmers to have accurate and timely diagnosis of more than 60 rice related problems along with their management and solutions. It is available in English and Assamese and the app can be installed in mobile from Google play store.



Geographical Information System (GIS)

Geospatial technologies including Remote Sensing (RS) are being used in system in the project for characterization of existing cropping order to assist in planning for appropriate technological interventions in rice fallows and stress-prone areas.

IRRI supported technologies under APART for increasing productivity and profitability



Assam Agribusiness and Rural Transformation Project (APART)





Power weeder

IRRI supported technologies under APART

International Rice Research Institute (IRRI) is providing technical support to Assam Agricultural University (AAU) and Department of Agriculture, Govt. of Assam for implementation of the World Bank-funded, Assam Agribusiness and Rural Transformation Project (APART) activities in Assam for increasing productivity and profitability of small and marginal farmers in rice-based cropping systems. Some of the technologies which have been introduced in Assam under APART are

Stress Tolerant Rice Variety (STRV)

Submergence tolerant rice varieties, i.e., Ranjit-Sub1, Bahadur-Sub1, Swarna-Sub1, BINA Dhan 11 have been widely promoted and demonstrated in the state. These varieties can tolerate flash floods up to 2 weeks. BINA Dhan 11 is a short duration variety which is suitable for post flood situation of Assam.

Premium Quality Rice (PQR) varieties

The seeds of high yielding *Joha* rice varieties, i.e., Bokul *Joha* and Keteki *Joha* have been demonstrated at the farmer's field. For promoting commercial cultivation of black rice, Kalavati, Kalamalifula and Manipuri black rice varieties are introduced in the state.

Alternate crop establishment method: Mechanical Transplanted Rice (MTR)

Mechanical transplanting of paddy addresses the issues of unavailability of labour during transplanting, thereby reducing cost, time and increasing overall productivity of the crop. Mechanical transplanter is being introduced and distributed among the Custom Hiring centres.

Mechanized Direct Seeded Rice (DSR)

Mechanized Direct seeded rice is a method of sowing rice seeds directly into the main field by using drum seeder in wet field and seed-cum-fertilizer drill/multi-crop planter in dry field. These methods reduce the number of labour, water and energy consumption in paddy field. Use of these technologies also make weed control easier by using mechanical weeders.

Integrated Pest Management (IPM)

IPM is an integrated approach of controlling and management of insect-pests using cultural, biological, mechanical and chemical methods on a sustainable basis. IPM practices are recommended to the farmers for insect-pest and disease management.

Integrated Weed Management (IWM)

Weeds interfere with crops competing for light, water and nutrients, resulting in reduction in yield and quality of the crop that necessitates control of weeds. IWM consists of cultural, mechanical, chemical and biological weed control. Under APART, use of power weeder has been introduced for mechanical weed control that saves time and reduces labour cost.

Postharvest technologies

Some of the postharvest technologies promoted are Solar bubble dryer (for drying), Reaper (for harvesting), Mini track-type combine harvester (harvesting, threshing and cleaning), Axial flow thresher and Open drum thresher (threshing and cleaning) and Portable rice mill (milling of rice, reduces the broken percentage of rice due to the use of rubber rollers).



Premium Quality Rice