

Interactive Field visit on 10th -11th and 16th October 2023

An interactive field visit programme was organised on 10th and 11th October 2023 at the ICAR Research Complex for Eastern Region, Patna, Main farm and on 16th October 2023 at Sabajpura farm. The objective of this programme was to acquaint all the scientists of the institute about different research trials going on at campus and interact for improving research activities and outcomes. The visit was started with the initial remarks of **Dr. Anup Das**, Director, ICAR RCER. He briefed about the importance of this visit to fine tune field research trials to get quality results. During this visit, the PI(s) of different projects explained their research trials to fellow scientists and other staff of the Institute. **Dr Santosh Kumar** explained the key characteristics of different rice variety *i.e.*, Swarana Shreya, Swarana Shakti Dhan, Swarana Samriddhi Dhan, Swarana Unnat Dhan, Swarana Purvi Dhan 3 and genotypes sown in rice cafeteria and at sabajpura farm.



He also briefed about various rice genotypes for Submergence tolerance. He told that in previous year the maximum survival percentage was recorded in IR 102796-14-77-2- 1-2, followed by IR 102777-18-64-1-2-6, IR 96321-315-294-B-1-1-1 and 96321-558- 563-B-2-1-1 compared to Swarna Sub 1.

Further, he briefed about different rice genotypes for multi stages drought tolerance. **Dr Shivani** explained the different component of natural farming of her research trials. In her second experiment i.e., Irrigation and nitrogen management of diversified rice based cropping system in middle Indo-Gangetic Plains, she found that rice-cauliflower-spinach-greengram is more productive and remunerative cropping system as compared to existing Rice-wheat-greengram system for middle Indo-Gangetic Plains. Application of 50% recommended dose of nitrogen + two foliar spray of nano urea @ 4 ml/liter were found more beneficial for rabi vegetables than cereals. **Dr Narayan Bhakta** explained the different submergence tolerant rice genotypes. He also briefed about traditional short grain aromatic rice varieties (katarni, shyam jeerea), and traditional rice landraces (padumani, hanuman joha, balidhan, jaldubi etc.). Dr Bhakta also enlightened the fellow scientists about mutation breeding. He informed that Kalajoha, Katarni and Shyamjeera are important traditional short grain aromatic rice varieties, popularly grown by the farmers for their excellent grain quality and aroma. Due to tall plant stature (1.5-2 m) and consequent crop lodging causes yield loss in these varieties. Thus, he has treated these genotypes with Gamma ray irradiation and ethyl methane sulphonate to induce variation (mutagenesis) for plant height and crop duration for selection of desired plants with shorter plant height and early maturity.



For efficient weed control under diverse tillage production system in rice-wheat-greengram cropping sequence, **Dr Sonaka Ghosh** narrated that application of pyrazosulfuron-ethyl as preemergence followed by cyhalofop-butyl + penoxulam at 25 days after sowing in rice, clodinafop-propargyl + metsulfuron-methyl at 30 DAS in wheat and pendimethalin as pre-em. fb imazethapyr (100g/ha) at 15 DAS in greengram is feasible option. **Dr Racahna Dubey** described her research experiment on optimizing soil organic carbon stock in rice-based cropping system in irrigated ecosystem. **Dr Sanjeev Kumar** enlightened about management practise in rice plots under IFS models. During the interaction Director emphasized on following good agronomic practices for better crop performance specially under stress conditions like drought faced by the region this year.

While visiting the evaluation trial of Nano-DAP in rice crop, **Dr Kirti Saurabh** informed that 75% recommended dose of fertilizer + one foliar spray of nano DAP @ 4 ml/liter i.e., followed by 50% RDF + two foliar spray of nano DAP @ 4 ml/liter could save up to 25% of conventional DAP dose without affecting grain yield. As management of false smut is a substantial issue in rice cultivation. **Dr. Manisha Tamta** clarified that management of false smut is possible through modification in sowing dates and selecting suitable varieties. **Dr Govind Makarana** briefed about quality seed production of Pigeon pea (IPA 203). During Sabajpura visit, different experiments i.e., Conservation Agricultural (CA) practices under Rice-fallow system of Eastern Region, Cereal Systems Initiative for South Asia (CSISA) Phase IV, evaluation trials of rice and quality seed production of rice and pigeon pea were monitored. Director suggested that new area of research work eg., biochemical/micronutrient analysis and standardization of agro-techniques in promising rice varieties/genotypes specially under DSR may be started. Director also stressed on the importance of regular field visit and undertaking need based measures specially water, weed, nutrient, and pest management to produce good crops. In this regard he suggested all scientists irrespective of subject should make it compulsory to visit field (Institute/farmers) to understand the real issues and take need based actions.