

Saguna Rice Technique (SRT) for enhancement of Rice Productivity

Background

Rice growers in Maharashtra are facing big challenge in terms of reducing rice productivity and increasing cost of cultivation. Rice growers are also facing challenge due to global warming & climate change. Hence the farmers are searching for a farming technique which will reduce costs of inputs, water, fertilizer, fuel etc. & which will reduce their drudgery & also improve productivity at the same time.

Department of agriculture studied the innovative methodology for "Rice Based Cropping System" developed by a progressive farmer Mr. Chandrashekhar Bhadsavale Malegaon, District Raigad who named it as " Saguna Rice Technique (SRT)" and dissemination of the technology is done through Public Private Partnership Project during 2014-15 & 2015-16.

Saguna Rice Technique (SRT) is a rice based farming system where no ploughing, harrowing, puddling, transplanting, hoeing is done. It is a "climate smart agriculture" which almost doubles the production per unit area. Only once the permanent beds are made. On these beds one after another 3 rotational crops in a year are taken in the same plot. After each crop we leave the roots of previous crop undisturbed to slowly decay in-situ. This completely stops use of diesel or any other fuel & do not require any organic manures. This method has demonstrated for the 1st time in the world presence of natural earthworms along with rice crop.

The results of the pilot project are encouraging where the productivity raised from 2600 kg/ha to 3700 kg/ha and cost of production reduced by 50%. This has been demonstrated by almost 1200 farmers over 600 ha. area in all agro-climatic zones of Maharashtra in 10 districts viz. Raigad, Thane, Palghar, Ratnagiri & Sindhudurg districts in Konkan and Nashik, Pune, Satara and Kolhapur districts in Western Ghat Zone under PPP-IAD programme funded through RKVY.

Major interventions:

- Capacity building of farmers and field officers
- Demonstrations of SRT technology
- Mechanization - Use of SRT frame, Reaper & Thresher

Outcome -

- Increase in yield: from 2500 kg/ ha to 3500kg/ha
- Reduction in cost of production by 50%
- Reduction in drudgery of women farmers/ labourers
- Reduction in top soil erosion as no ploughing, puddling and hoeing required

SRT adoption by farmers in Maharashtra

Bed preparation for SRT & Use of Weedicides



Use of Dibbling Tool (SRT Frame)







