

FARMER'S NOTEBOOK

Eco-friendly technologies fetch better results in rice production

More than 100 growers participated in the demonstrations

M.J. PRABU

Kuttanad, referred to as rice granary of Kerala, forms a unique ecologically fragile bio-geographical unit that is located mostly in Alappuzha district in Kerala.

The vulnerability of the system is attributed to the problems of water logging and soil acidity along with climatic variations. Crop damage due to summer rains and flood during monsoon in the low lying fields called padasekharams are quite common.

This uniqueness in bio-geography and associated social factors and institutions has earned it a Globally Important Agricultural Heritage System (GIAHS) status by FAO in 2013.

Unique place

"The heritage status also strives for ecological restoration and sustainable development of the water-logged system which is under increasing stress due to environmental pollution caused by indiscriminate use of chemical fertilizers and chemicals," says Dr. P. Muralidharan, senior scientist and programme coordinator at the institute.

To address these problems, demonstrations were conducted in Alappuzha hosted by Central Plantation Crops Research Institute (CPCRI) in Muttar village of Veliyanad block under the National Innovations on Climate Resilient Agriculture (NICRA) project for four successive crops from 2011-2015.

Farmers were encouraged to take up demonstration packages on optimization of



PACKAGE: Farmers were able to harvest six to seven tonnes of paddy from a hectare. – PHOTO: SPECIAL ARRANGEMENT

seed rate and plant population through the use of drum seeder, site specific acidity-nutrient management (SSNM) based on soil, testing, and eco-friendly pest and disease management and placement of trichocards for the control of major pests.

Area covered

More than 100 farmers participated in these demonstrations which covered an area of 74.2 hectare over four years.

Through regular field visits, farmer field schools, and interactions the crop situation from sowing to harvesting was monitored continuously.

According to Dr. Muralidharan, by using paddy seeder (drum seeder) the seed requirement came down to 30 kg from of 100-120 kg a hectare thus reducing the cost on seed purchase to almost 25 per cent.

Since the seeds were sown in uniform lines, plant population was optimum, the number of productive tillers

was high and good aeration in the crop stand which resulted in reduced susceptibility of pests and diseases.

Further the plants had strong root anchorage in the soil which helped them survive lodging during harvesting stage due to summer showers and wind.

"Another point is the time taken for harvest by the combined harvester was reduced by 40-50 per cent due to the uniform population and non-lodging feature achieved by drum seeding.

All these factors put together reduced the cost of cultivation by about 10-20 per cent," says Mr. M.S.Rajeev, specialist at the Kendra.

No pests

Farmers were able to harvest the crop without using any chemicals. There were no pest or disease incidences in these plots and farmers were satisfied with the methods used.

Usage of chemical pesticides and fungicides reduced by 90 per cent and those who

regularly used plant protection chemicals, the amount spent for pesticides and fungicides reduced to 50 per cent compared to the previous crop, according to him.

Better yield

While the traditional broadcast crop yielded an average five to six tonnes per hectare, by adopting this package of technologies farmers could harvest six to seven tonnes per hectare with reduced inputs.

The better yield and reduced cultivation cost led to an overall net profit of minimum Rs.12,500 per hectare. Beneficiary farmers acted as master farmers to spread this package of technologies to others of the adjoining villages.

For further details interested farmers can contact Dr. P.Muralidharan, programme coordinator on mobile: 09496167382 and Mr. S. Rajeev, specialist, email: mailto:kvkalapuzha@gmail.com, mobile: 09446282080, phone:0479-2449268.