

Management during Monsoon: A farmer's dilemma

THE delayed monsoon has finally arrived and for farmers there is so much to plan and so much to do; from sowing of *kharif* crops to management of weeds and insect-pests. Farmers look into conservation of resources, and sustainability and diversification of system. Prior planning for all agricultural practices is easier said than done. Farming in a normal season and after a natural disaster (like flood and drought) requires altogether different finances and expertise, along with heart and courage of the ever optimistic Indian farmer who faces these calamities in one or the other part of India, year after year.

The vast canvas of Indian agriculture cannot be handled in a single stroke. India faces flood and drought situation in different parts of the country at the same time. Our experts issue advisories accordingly. Farmers ensure proper bunds around the field to capture the rainwater in the field, while in case of excess water, proper arrangements of drainage are made in all crops except rice. Under drought condition drought-resistant varieties are advised or late sown varieties are sown to pass the water-deficient time, e.g., rice is transplanted in Punjab after 15 June.

Care of *kharif* crop, an important activity during this period, involves optimum fertilization schedule, check on pesticide/herbicide pollution, and managing maize, pearl millet and sorghum growth. One article in this issue is on aerobic rice-zero tillage wheat, and its findings ponder upon the importance of diversification of puddled transplanted rice (PTR) followed by conventional drill sown wheat (CDW) with aerobic rice system (ARS) followed by Zero tillage wheat (ZTW) as it increases system profitability, net energy production and total water use efficiency.

With about 18% human and 15% of livestock population of the world being supported only by 2.4% of geographical area, 1.5% of forest and pasture lands and 4.2% of water resources, the natural disasters and intensive agriculture are causing a critical imbalance in the natural resource base of the country.

The conservation of natural resources and protection of the deteriorating environment is a must so that the required growth in agriculture is maintained with sustainability. During Van Mahotsava, an annual tree planting festival celebrated in July, thousands of trees are planted all over India. In 1950, it was started by K. M. Munshi, the then Union Minister for Agriculture and Food, to create awareness among the people for the conservation of forests and planting new trees. The forest-cover not only helps in conserving soil, mitigating climate change effects, but also in checking damage due to flooding by absorbing extra rainfall. Farmers can play a big role in making Van Mahotsav a grand success by planting as many trees as possible in their surrounding areas to check soil erosion and halting further reduction of the water table. The consideration may be given to the role of policy and institutional support for rainwater harvesting, as well as studies to determine the environmental, social and economic benefits of the technology. Training, capacity building and materials for catchments and storage should be arranged for implementation of plan and providing a helping hand to our farmers. Hope rains will bring cheers to the masses!

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