

Use of fertigation for sugarcane in problematic soils

Situation analysis/Problem statement:- In India highest area under sugarcane has brought socio-economic changes in rural India by way of facilitating entrepreneurial activities such as dairies, poultries, fruits and vegetables processing and providing educational, health and credit facilities. . Sugarcane is also the second most important cash crop covering less than three per cent of the total cropped area of the State, but it utilizes more than 60 per cent of the total water available for irrigation in the State.

Under the sugarcane farming system in Pune district majority of the area is under canal and river irrigated. Mostly sugarcane is irrigated judiciously by poor quality water. For production of 50 MT sugarcane productions more than 3 corer liters of water is used. This decline soil fertility and productivity of sugarcane and other crops. Most of the regur soils of particular sugarcane cultivated area is problematic due to heavy application of water and improper use of fertilizers. Fifty percent of the productivity is reduced by this improper management.

Plan, Implement and Support : Krishi Vigyan Kendra, Pune-I organized training cum demonstration programme at such region for improvement of the soil fertility and increase the yield of sugarcane in 2017 to 2019. Initially block wise training programme on problematic soil improvement by use of mole plough and application of fertilizers by site specific nutrient management programme was implemented. Study tour was organized for sugarcane group leaders at Sangli to show the impact of such technologies. Initially KVK analyzed the soil samples from all fields where sugarcane had planted. Farmers used one month old good quality Co- 86032 sugarcane settlings for plantation. All sugarcane growers used drip for irrigation and fertigation. Periodically KVK scientists visited those fields for proper recommendation of fertilizers. As per the soil testing report sugarcane growers used Urea, Phosphoric acid and Murate of potash through drip. Micronutrient grade number II was applied through spray at 60 and 90 days after planting. 75 percent Fertilizers were used by 21 split doses. All packages of practices were followed as per MPKV, Rahuri recommendations.

Output & Outcome: This activity was conducted at Pandare and Malad, Baramati block of Pune district. The average yield of sugarcane was increased by 33.61 percent. Whereas 154 t/ha sugarcane yield was obtained at demonstration plot as compare to control- farmers practice (122 t/ha). In case of saving of fertilizers, 22 % chemical fertilizers were saved by this technology.

Impact: Use of mole plough and application of fertilizers through drip was adopted by 4561 farmers of five blocks of Pune dist.



