Uplifting income and nutritional security of tribal farmers of Khargone district of Madhya Pradesh through TSP by ICAR-DGR

Situation analysis

Groundnut is an important oilseed crop of Khargone district. Majority of the tribal farmers grow it in rainy season. Before 10-20 years ago farmers cultivated groundnut crop but due to problem of white grub and non-availability of quality seed and incidence of disease as well as low productivity of crop farmers abandoned the crop. Particularly tribal farmer's cultivation of groundnut was sub-optimal and without any decent remuneration. Before making interventions, the main problems identified are use of imbalance dose of fertilizer, indiscriminate use of pesticides, and fungicide, use of traditional system for irrigation like flood irrigation, no use of mulching in crop, use of local varieties as well as local seeds, improper weed management, high plant population, seed rate, untimely plat protection measures and lack of knowledge of hi-tech techniques and all of above poverty is major issue for low production.

Technology, implementation and support

The ICAR-DGR has collaborated with active ATMA, Khargone to make interventions for the use of organic manure, promotion of integrated nutrient management, IPM, IDM, drip irrigation with fertigation use of quality certified seed, 100% seed treatment, use of ridges furrow planting as well as raised bed planting mobilization and capacity building of tribal farmers, promotion of sage storage of produce and application of micro-nutrients. During implementation the scientists of ICAR-DGR and officials of ATMA Khargone made monitoring visits. Among seven blocks on-farm demonstrations being implemented, we the group first visited Maheshwar block. This block consists of 30 beneficiaries. On interaction with farmers separately and in group we came to know that the farmers have been distributed with all the critical inputs approved by the DGR to the right beneficiaries. Record maintained was good and found with farmers signatures. The crop was in raised bed having 2 feet width three rows planting. There is very less pest and disease attack. In this block farmers were motivated by free input given for groundnut cultivation. Otherwise cotton is preferred crop and said to be more profitable than groundnut in Kharif. The farmers were asked to save the seed for next summer season, where it got good scope in profitability when compared with competitive crops like wheat and sorghum. In Kharif the competitive crops are Maize, Soyabean, Cotton, and Chilly. In the second and third days the group covered other blocks viz., Bhagwanpura, Khargone, Segoan, Zirnia, Bhikangoan, Gogawa of Khargone district. Pest incidences like white grub, termite attacks and diseases such stem rot, collar rot and leaf rust symptoms have been observed, though both at below than ETL. Crop management was very good particularly at Zirnia, Bhagwanpura blocks, where both the farmers and BTM, SMSs are responsive, receptive and enthusiastic about groundnut cultivation. The ICAR-DGR scientists suggested them to make more awareness among the farmers through upcoming Krishi Maha-utsav.

Uptake spread and benefits:

The average groundnut productivity of Khargone district in the year 2012 was about 10 quintals/ha. The average productivity achieved through DGR-ATMA, Khargone supported on-farm demonstration was about 20-25 quintal/ha.

1. The tribal farmer's economic condition has improved dramatically with new way of cultivating groundnut with site specific recommended dosage of fertilizers.
2. Due to the higher yield the groundnut consumption rate has increased. There by achieving much needed nutritional security especially among the tribal children.
   The production and profitability analysis revealed that per farmer had achieved yield about 10 quintal/acre there by in 305 on-farm demonstrations conducted in the district the total production achieved was 3050quintal in the *Kharif* 2014. The market rate for per quintal of groundnut pod was Rs.3900/- there by the total production value of Rs.119 lakh was achieved. In each demonstration the farmer had invested about Rs.3700/- in addition to the critical input supplied. The total investment by all the 305 farmers was Rs.11.28 lakh. The average net income realized was Rs.35300/-per demonstration there by increasing the livelihood of 305 tribal farmers by recording Rs.107 lakh in the demonstration conducted villages.

Social impact

The socio-economic status of tribal farmer has increased. A visible impact of co-ordinated strategies by the research arm and implementing agencies paid good results among the poor farmers. Now they are motivated themselves and others to cultivate groundnut by adopting modern practices for securing nutritional and livelihood security.