

Pulses Energizing Sugar



Background & Objectives

In India, Pulses are grown on the marginal and sub marginal lands of the farmers and about 85% of the pulses production is done in rainfed areas.

Apart from being a rich source of protein, pulses also increase fertility of the soil due to their leguminous nature. India is the major producer and consumer of pulses. Despite their importance, the per capita availability of pulses has reduced to almost half from about 70 gm/day in 1950-51 to 30gm/ day at present. This is against the recommendation of 43gm/day given by Indian Council of Medical Research in India.



The area under pulses is decreasing due to several production constraints such as lack of adequate quantity of quality seeds, varieties being prone to disease and pest, lack of technical knowhow, slow dissemination of technology, lack of mechanization, marketing problems etc. Increasing pulse production is a national concern today so as to meet the recommended per capita protein requirement. For

increasing the area and production of pulses, inter cropping with sugarcane is considered one of the potential possibilities because of crop compatibility and crop duration.

Uttar Pradesh has made an attempt to enhance area and production of pulses by intercropping with sugarcane in western U.P with funding from RKVY. This attempt has led to increase in soil fertility and in turn has increased the production of sugarcane,

Intervention

In Uttar Pradesh, the area under pulses is 2.22 million hectares and production is 1.99 million metric tons with an average production of 8.99 q/ha. Total area of sugarcane in the state is 22.49 lakh hectares. A scheme for **“Increasing Area & Production of Pulses through Inter Cropping with Spring Sown Sugarcane”** has been implemented under RKVY in major sugarcane growing areas of Uttar Pradesh since February, 2011. Total expenditure under the project for the years 2010-11 and 2011-12 is Rs. 421.75 lakhs.

An area of 85272 ha in 265 blocks of 30 selected districts of the State was targeted through this intervention. The activities that were carried out under this scheme were distribution of inputs like pulse seed (*urd*), bio-fertilizers, trichoderma, beauveria bassiana, insecticides, raised bed planters, organization of training & field days, distribution of literature etc.



Major areas having sugarcane based cropping system were identified, followed by selection of farmers willing to take up inter cropping of pulses with sugarcane. Such willing farmers were trained on package of practices of sugarcane-pulses intercropping, the cost benefit advantage of inter cropping with sugarcane explained to them.



Sowing of one row of pulses between two rows of sugarcane by the farmers was carried out under the watchful eye of the block supervisor. Field days were organized at village level to show the response of the inter cropping to neighbouring farmers. Finally, a record of the observation and feedback from the farmers was maintained.



Nearly 43723 ha sugarcane area has been covered in 265 blocks of 30 districts against the target of 85272 ha under the pulses intercropping. Urd (black gram) Seed of 4603.83 quintals was distributed and 60000 farmers were benefited.

Outcome

This project has promoted efficient use of cultivated land in sugarcane areas, optimized use of available resources, i.e., water, labour and other inputs, and reduced overall cost of cultivation.

Moreover, it has not only provided additional yield of pulses averaging 6.56 quintals/ha to beneficiary farmers but also benefitted sugarcane crop symbiotically. Soil health has improved due to fixation of atmospheric nitrogen by root modules of *urd/moong* which ultimately benefits the sugarcane crop, resulting in increased yields by 10%.

Truly a win-win situation for farmers!!
