



EVERY DROP COUNTS IN PAIRED ROW SYSTEM OF MAIZE CULTIVATION

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Introduction

DAATTC, Mahabubnagar promoted paired row method of cultivation in Maize. Maize is an important cereal crop widely grown for food and feed and is one of the most versatile emerging crops having wider adaptability under varied agro climatic conditions. It is mainly cultivated as rained crop in *Kharif* and as irrigated crop during *Rabi*. In Mahabubnagar district the normal area of maize is 20540 ha and one of the major crops best suited for *Rabi* which gives good yield with good management practices. Unfortunately, much of the expected yields are not realized because of traditional method of planting and cultivation.

Boinpalle is a Village in Midjil Mandal in Mahabubnagar District of Telangana State, India. It belongs to Southern Telangana Zone. It is located 44 km towards East from District headquarters, Mahabubnagar and 3 km from Midjil with Gross cropped area around 2,400 acres under which more than 200 acres is under Maize with bore well irrigation.

Problem:

Farmers were facing problems such as low plant population, poor and uneven development of cobs and increased cost of

cultivation in view of fertilizers and seed population. Competition between weeds with main crop for water, nutrients and other inputs affects the crop growth because of weed dominance for nutrients. Incidence of pests & diseases also affects the yields. All these factors together contribute for the lower yields and increased cost of cultivation and same with Sri P. Venkatesh from Boinpally Village of Midzil mandal and Mahabubnagar District **Technology interventions - intervention details and economics involved:**

During the training programme Sri P. Venkatesh expressed his willing over paired maize and asked for guidance from DAATTC, Mahabubnagar. The farmer took the guidance from the DAATTC, Mahabubnagar scientists and practiced in his field of 1.75 acres. In paired row method of planting maize, spacing between plant to plant is 25 cm, row to row spacing is 30-35 cm and spacing between one pair to another pair is 90 cm. For irrigation and fertigation to the plants, a drip lateral is spread in between the two rows which help in giving uniform water and fertilizer to both the rows thus decreasing the no of

lateral requirement per acre. Application of pre-emergence herbicide like Atrazine @ 1.0 Kg/ acre immediately after sowing. In this technology, the fertilizers are applied through fertigation method within the rows thus reducing the amount of fertilizers compared to conventional method and avoiding labour cost for application. As the nutrients are available at the root zone this gets directly absorbed by the roots thus uniform plant growth was observed. Increased organic carbon percentage and less weed infestation was also noticed.

Impact of intervention:

Cost ratio was higher in the paired row method with 1.54 compared to 0.75 in conventional method of maize. Additional benefits easy to harvest, uniform cob size, peer farmers have also adopted paired row technology without drip system and in zero tillage. This method of planting remarkably effected the yield attributes of maize. Paired row system of planting allows better inception of light and there by contributes for higher yields.

Testimonial from farmer: The farmer claimed that as this method has wide gap of 90 cms between the pairs is huge gap between row to row the harvesting gets easy and farmers without being hurt in the field. By the virtue of these attributes the farmer shifted from conventional method to Paired row method of planting in Maize. He is satisfied with the results. The main factors that have contributed to his success are his interest in and passion towards advanced technologies.

Photographs or comparative photographs if any

