

COMPARATIVE EFFECTIVENESS OF MECHANICAL AND CHEMICAL METHODS OF WEED CONTROL IN MAIZE

by

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ABSTRACT

The comparative effectiveness of mechanical and chemical methods of weed control on the grain and stover yield of maize variety Synthetics-66 was studied during the year 1973 and 1974 at the Farm—of Maize and Millet Research Institute, Pirsabak (Nowshera). It was found that the grain and stover Yields were significantly increased over control by all weed control methods. As regards to the increase in the yield of grain and stover, mechanical means were more effective than chemical methods. Cultivator weeding was the best over all other methods, while atrazine spray was better than 2,4--D spray.

INTRODUCTION

Maize (*Zea-mays* L) is the principal cereal crop of N.W.F.P. Out of the total area under this crop in Pakistan, more than half lies in N.W.F.P. Its production and consumption also rank first in this Province. In most part of the country, especially in the hilly tracts, maize is used as a staple diet. Besides, its use as raw material for industrial purposes, it is also utilized as fodder. The return per unit area from a crop stand is related to the yield. The yield of maize is affected by various factors, such as crop-rotation, fertilizer doses, number of irrigations, soil fertility, cultural practices and plant protection measures.

Weeds present alarming problem as they compete with maize crop for space, light, nutrients and moisture and thus adversely affects the yield. It is difficult to assess the total losses due to weeds as the losses are incurred in various ways which are hard to measure in monetary terms. According to an estimate, the losses in the

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