

## P R E F A C E

The investigation was taken up with a view to identify and demarcate the actual limitations of various agronomical practices which affect the yield potentials of jute crop. The problems studied in the present work include exclusively those faced by small land holders as well as large farms in eastern parts of the country and specially in West Bengal.

The present study consists of various large and small scale trials with two cultivated species of jute in different soil types, wherein screening of various herbicides was undertaken. Relationship of crop and weeds and their interactions were studied with emphasis on the efficacy and economics of herbicide use.

Of the five chapters, the first includes a brief resume of the importance of this study followed by short review of the relevant literature. The next chapter deals with the materials used and experimental procedure adopted during the course of study. The growth behaviour, distribution pattern, phyto-sociology, nutrient and soil moisture deficits and taxonomic enumeration of weeds have been incorporated in chapter three. The first part of chapter four

deals with various doses of herbicides, their phytotoxicity on weeds and crop under various ecological and agro-climatic conditions prevalent in this area. Part two specifically touches some of the major weeds associated with the crop and describes trials for evolving a suitable chemical control of these jute field weeds. The fifth chapter states conclusions reached on the standardization of dose, time and method of application along with the assessment of residual effect of the herbicides on weeds after jute harvest and in subsequent crop. The last chapter contains economics of weed control and the cultural practices adopted. Conclusions based on the experimental findings with a short summary have been given at the end of the last chapter.

It is hoped that adoption of the findings of this study will go a long way in meeting the objective of increasing yield of jute at a low cost in West Bengal.