PREFACE

The general pattern of the relationship between climate and crop yield is too wellknown; climate exercises a strong control over the complex agricultural systems. It is therefore quite appropriate to study the relationship between crop production and climatic influences.

A modest attempt has been made in the study to critically examine what factors of climate influence the crop yield of major crops of Maharashtra state in nearly fifty per cent of the cropped area.

Chapter I on 'Introduction' gives details of work done by eminent scholars in the field of crop-climatic relationship in various countries of the world. The methodology used by these research workers in establishing the relationship has been indicated.

Chapter II on 'General aspects of crop climatic relationships' include a discussion on influences of climatic and water balance parameters on crops at different growing phases. Crop responses to
the various climatic elements like moisture, temperature, light, wind etc. have been outlined.

Chapter III deals with Data, Methodology and Procedure used in the study. It describes how the data were collected, its conversion and the computation of water balance parameters. An outline of methodology used in the study with critical comments is presented. However the details are given in the Appendix.

Physical setting, climate, Land use and Agriculture etc. in the region of study i.e. the state of Maharashtra has been given in view of its importance in Chapter IV.

Chapter V onwards contain information on the models developed for various major crops. Chapter V deals with Rabi Jowar and the regression equation developed for the districts of Sholapur, Poona and Ahmednagar where it is grown prominently.

Chapter VI deals with Kharif Jowar and exhibit the relationships developed for the areas of Yeotmal, Buldhana and Amravati districts.

Chapter VII on 'Bajra' covers the areas of the districts of Poona, Ahmednagar and Aurangabad.
Models developed for Rice are presented in Chapter VIII.

Summary of the work done is given in the concluding Chapter IX, with suggestions for further work.

Appendix 'A' and 'B' contain details of Methodology and Computer programming used in the study respectively.