PREFACE

Pigeon pea as a pulse crop contributes considerably to the nutritional quality of the Indian diet. The production of this crop is not in tune with the ever increasing population due to subsistence and rain fed agricultural practices. The agroclimatic regions where pigeon pea is mostly grown are mainly in the semi arid belt of India where drought and soil salinity are the major problems. Development of salt tolerant lines is, therefore, important for increasing the productivity of pigeon pea under saline environments.

The breeding programme demands efficient screening procedure and search for genetic variability both in cultivated and wild genotypes. Any determination of physiological and biochemical changes can be equally rewarding. The present investigation aimed to assess the response of pigeon pea to salinity, and focused on finding out the possibility of recognising physiological and biochemical changes following salinity stress at seedling stage.

The subject is introduced in Chapter 1, and the relevant literature is reviewed in Chapter 2. The experimental procedures followed are detailed in Chapter 3. A comprehensive account of the main findings is given in Chapter 4, and their significance is discussed in Chapter 5. The results are summarised in Chapter 6, and references are listed in Chapter 7.

The results from this investigation are expected to stimulate further studies on pigeon pea and other important grain legumes, and the information obtained on seedling response to salinity is considered to be useful to pigeon pea breeders and growers.