

PREFACE

The study of entitled "STUDIES OF NITROGEN AND BIOCHEMICAL INTAKE OVER THE CHEMICAL CONSTITUENTS OF GRAMINACEOUS PLANTS" embodied in this thesis has been carried out in the department of Post Graduate studies and research at Atarra P.G. College, Atarra (Banda).

Fertilizer not only make up the deficiency of the nutrients but affect the yield or growth of the plant and have an appreciable effect on the chemical composition of the plants and their products. This effect has been shown to be governed by other important factors e.g. level or dose of fertilizer, extent of irrigation, basal richness of the soil, associative effect of fertilizers in their different combinations forms, modes, and sources of fertilizers, time of application, stage of cutting, progress of maturity etc. Among all the fertilizers, nitrogen and trace elements have been shown to play a special role in plant physiology.

The thesis entitled "STUDIES OF NITROGEN AND BIOCHEMICAL INTAKE OVER THE CHEMICAL CONSTITUENTS OF GRAMINACEOUS PLANTS" consist of five chapters and the contents of each chapter are as follows:

The chapter I begin with the general introduction in which the existing literature of macro and micro nutrients elements essential for the normal growth of plants this chapter also include different types of chemical reactions involved in the nitrification, denitrification etc. in soil

and a out come of these the effect of nitrogen uptake in crude protein content, total free amino acid, effect over mineral contents, effect over total carbohydrate and effect over trace elements has also been stressed.

Chapter II deals with the materials and methods. This chapter describes the different experimental techniques and reagents used for the estimation of crude protein, albuminoid nitrogen, total free amino acid phosphorus, carbon, iron, manganese, zinc.

Chapter III describes the studies of different levels of nitrogen intake on the chemical composition of grain and husk of local and hybrid varieties of *Oryza sativa*. In this chapter to study the effect of nitrogenous fertilizers in the total protein content of different varieties of *Oryza sativa*.

Chapter IV deals with the effect of trace elements and iron pyrite in the chemical composition on rice grain and husk of PHB-71.

In last chapter, that is, Chapter Vth describe a report on biochemical effect on the chemical composition.

The references given in this thesis are covered up to date and the part of the work of this thesis published in national conference.