

INTRODUCTION

1. INTRODUCTION

Common bean (*Phaseolus vulgaris* L.) is one of the legume crops which are mainly grown for its green pods and dry seeds. Dry seeds of beans are one of the most important sources of proteins and are commonly used for human nutrition.

In Egypt, the cultivated area devoted to common bean in 1993 reached 16232 faddans with a total production of 15990 tons of dry seeds, with an average yield of 0.99 tons/faddan.

The population increases in a staggering rate while, in general, the cultivated area with beans in Egypt, is somewhat limited. Therefore, it is necessary to increase the production capacity either horizontally by increasing the cultivated area and/or vertically by increasing the yield per unit area.

Maximizing the productivity of dry bean seed yield could be achieved by choosing the suitable levels of commercial macro-nutrients, i.e., nitrogen, phosphorus and potassium fertilizers and optimum plant density which are considered as the most important factors affecting seed yield.

Therefore, the aim of this work was to study the effect of the two extremes of the optimum seed sowing rate as well as the optimum level of nitrogen and phosphorus fertilizers and their interaction on the common bean plant vegetative growth characteristics and its chemical constituents as well as dry seed yield and its nutritive value to get maximum dry seed yield with best quality.