Summary & Conclusion
Chapter VI

SUMMARY AND CONCLUSION

The present investigation was carried during the years 1998-99 and 1999-2000 at Main Experiment Station of Department of Horticulture, Udaipur Pratap Autonomous Post Graduate College Varanasi (U.P.) with main objectives to find out the optimum and economical dose of nitrogen and phosphorus for better growth and seed yield of French bean. The experiment was conducted in Randomized Block Design with factorial concept and replicated thrice. The treatments consisting of five levels of nitrogen (0, 40, 80, 120 and 160kg/ha) and four levels of phosphorus (0, 20, 40 and 60kg/ha). The crop was sown in the month of October (last week) in both the years. Recommended cultural practices were timely adopted during the course of this investigation and observations pertaining to vegetative growth and seed yield were recorded. Economics of French bean crop was also computed on the basis of mean data of two years of experimentation. Important findings derived from the experiment are being furnished hereunder:

Growth parameters expressed in terms of plant height and number of leaves/plant were stimulated almost all the stages of plant growth including number of branches per plant and days taken to 50 % flowering by addition of nitrogen and phosphorus (except plant height at 60 DAS and 50% flowering). However, the better response on various growth parameters was recorded when plants received 160kg N and 60kg P/ha.
Length of pod was significantly increased with successive increase in doses of nitrogen as well as phosphorus and found maximum pod length when applied 160 kg N and 160 kg P/ha.

Application of 120 kg nitrogen per hectare produced significantly higher number of pods and weight of seeds/plant, number of seeds/pod and seed yield (q/ha), whereas, 160 kg N/ha significantly reduced the seed yield. Phosphorus had showed significant effect on above attributes and the maximum values towards these characters were noted with 60 kg P/ha.

Percentage of seed germination was increased significantly with increasing levels of nitrogen and Phosphorus and it was found highest in the plots receiving 120 kg N and 60 kg P/ha.

The combined application of nitrogen 120 kg and phosphorus 60 kg/ha improved the growth, yield attributing parameters such as number of pod, weight of seeds/plant, number of seeds/pod, test weight (1000 seeds) and seed yield (q/ha) followed by 120 kg N + 40 kg P/ha.

On the basis on two years experimentation, the mean data indicated that the treatment combination 120 kg N + 60 kg P/ha gave maximum average seed yield i.e. 26.05 q/ha with the profit of Rs. 56,893.20 and net return per rupee investment i.e. Rs. 2.63 and this combination was found to be most remunerative followed by 120 kg N + 40 kg P/ha which gave average yield i.e. 25.42 q/ha, net profit i.e.; Rs. 55,063.20 and net return per rupee investment i.e.; Rs. 2.60

Hence, the treatment combination 120 kg N and 60 kg P/ha along with 60 kg K/ha of present investigation can be adopted for profitable cultivation of seed crop of French been var. contender under the existing agroclimatic conditions of Eastern Uttar Pradesh particularly under varanasi conditions.