SUMMARY AND CONCLUSION
Chapter VI

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The present experiment was conducted in 1988-89 and 1989-90 at K.A.D.C., Allahabad, with the aims to find out the fertilizer requirements of garlic crop for successful production. The experiment comprised 3 levels of N (60, 70, 80 kg/ha), three levels of P$_2$O$_5$ (30, 35 and 40 kg/ha) and three levels of K$_2$O (80, 100 and 120 kg/ha). The experiment was laid out in Randomized Block Design, having three replications. Timely and recommended cultural practices were adopted during the course of investigations. The observations on characters pertaining to vegetative development maturity, yield and quality were recorded. Economics of each treatment was calculated. Data were subjected to statistical analysis the results thus obtained are summarised as follows:

It was found that number of leaves and plant height significantly increased with increasing levels of nitrogen only.

Fresh and dry weight of plant was also taken. It was observed that increasing levels of N, P$_2$O$_5$, and K$_2$O have
significantly increased the fresh and dry weight of plant interaction effects were not significant.

Neck thickness was increased with increasing levels of nitrogen.

Crop maturity delayed significantly with the increasing levels of nitrogen.

Total yield of bulbs also significantly increased with increasing levels of N, P\textsubscript{2}O\textsubscript{5} and K\textsubscript{2}O.

Thus, looking into economics of garlic production it was found that 80 kg N/ha, 40 kg P\textsubscript{2}O\textsubscript{5}/ha with 120 kg K\textsubscript{2}O/ha, had given maximum net return as compared with other treatment combination.

The number and weight of marketable bulbs/plot was significantly increased with increasing levels of N, P\textsubscript{2}O\textsubscript{5} and K\textsubscript{2}O.

Contrary to this, number and weight of unmarketable bulbs were higher in the lowest doses of N, P\textsubscript{2}O\textsubscript{5} and K\textsubscript{2}O.

TSS and sulphur content of bulb were significantly increased with increasing levels of N upto 80 kg N/ha. However, P\textsubscript{2}O\textsubscript{5} and K\textsubscript{2}O did not have any impact on TSS and sulphur content of the bulbs.
Based on above findings, the following conclusion can be drawn:-

Increasing doses of N upto 80 kg N/ha, increased the yield, net income per hectare and improved the quality of garlic bulbs.

Application of P₂O₅ upto 40 kg P₂O₅ per hectare also promoted growth and ultimately enhanced the economic yield as well as it improved the quality of garlic bulb.

A dose of 120 kg potash was most suitable for economic cultivation of garlic as highest yield, highest net profit as well as superior quality of bulbs were obtained with this dose.