

## Summary

Three separate field experiments were studied on cauliflower (*Brassica oleracea* var. *botrytis* cv. *Snowball*) to study the effect of P-level within P – source, times of P-fertilizer within P-source. The effect of Zn, B and Mn application as seed soaking or foliar spray on growth, yield and quality of cauliflower curds were also studied. Experiments were carried out at the Experimental Farm of the Faculty of Agric., Moshtohor Kaliobya during the winter season of 1995 / 96 and 1996 / 97. Results showed that :

- 1- Adding phosphorus fertilizer at 60 Kg  $P_2O_5$ /fad as monoammonium phosphate (MAP) or Diammonium phosphate (DAP) gave higher growth, early, marketable and total yield with the best quality as compared with super phosphate (SP) or granulated triple super phosphate (GTSP). Seed yield was also increased by using DPA or MAP at 60 Kg N/fad as compared to SP or GTSP.
- 2- Studies showed that adding MAP or DAP at 3 split times (3, 6 and 9 weeks after transplanting) gave higher plant growth, marketable and total yield with the best quality of curds than those received SP or GTSP.
- 3- Results showed that plants sprayed with 200 ppm Zn or 50 ppm B produced higher total yield and quality of curds than those received 200 ppm Mn or the control. Generally, foliar application of micronutrients were better than seed soaking.