

Cauliflower (*Brassica oleracea* var. *botrytis* L.)

French: Chou-fleur; Spanish: Coliflor; Italian: Cavolfiore; German: Blumenkohl

Under Temperate Conditions

Crop data

Most important of the numerous *B. oleracea* species, characterized by its distinctive large head.

Interval from sowing to harvest 100-180 days.

Plant density: 1.5 - > 5/m². Yields 10-40 t/ha. Adaptable to wide range of pH (5.5-7.5) and tolerates brackish soils.

Considered a cool season crop; optimum temperature for growth is near 17 °C but also tolerates rather low temperatures.

Nutrient demand/uptake/removal

According to Anstett (1961), 198 kg N, 66 kg P₂O₅, 295 kg K₂O, 21 kg MgO, 186 kg CaO, for crop yielding 37 t/ha (corymbs). Averaged from other authors, 175 kg N, 60 kg P₂O₅, 200 kg K₂O, 25 kg MgO, 115 kg CaO, 45 kg S per ha.

Plant analysis data

Critical values for K in 60- to 75-day old plants are about 2 % in young leaves and 1 % in older leaves.

Fertilizer recommendations

Provided the soil organic matter content is satisfactory, suitable fertilizer application would comprise 150-250 kg/ha N, one-third before transplanting and the remainder as topdressings, 60-100 kg/ha P₂O₅, and normally 200-300 kg/ha K₂O before planting. Mg, Ca and S may also merit consideration on the basis of soil analysis.

Special attention must be paid to B and Mo. The most common effect of B deficiency is hollowing of the stem due to cracking of the pith, and browning of the corymb (similar symptoms can be caused by excess of N). Mo deficiency can occur in acid soils; in these circumstances distribution of Mo salts to the soil or in foliar sprays may prove useful. K deficiency can also occur, causing shortening of internodes, thickening and curling of lamina, purple pigmentation along the leaf veins, inhibition of curd formation and floral bud necrosis.