



Cauliflower

About Cauliflower

Cauliflower is a cole crop, cool season vegetable. The edible portion is commonly called curd or head. All cultivars require vernalization to flower; however, late-maturing types require longer exposure and lower temperatures than early cultivars. It requires a long growing season (75-100 days, to 200 days for some late-maturing and overwintering cultivars; Tropical (Indian)-types mature as early as 60 days after planting.



Cauliflower is usually grown from transplants. It is an annual plant, determinate in growth.

Climate and Soil

Temperature	Frost tolerance	Water needs	Tolerance to waterlogging	Drought tolerance
Cool: day 18-20°C, night 3-12°C. Curd formation: 16°C. Quality affected at 27°C+. Needs vernalization (cold T° before flowering)	Very sensitive to frost, especially at head formation	Most sensitive to water stress in head formation. Moderately sensitive to water salinity.	Long periods of waterlogging may result in root rot diseases	Poor. Stress can promote premature buttoning or head formation
Humidity tolerance	Wind tolerance	Soil needs	Nutrient requirements	
High. Free moisture on heads/curds will cause mold.	Fair to poor.	Well drained— preferred in the winter; Medium texture – preferred in the summer (higher moisture-holding capacity). pH 6.5 or higher. Soil temperature 15-20°C. Fairly sensitive to soil salinity.	Moderate N, P, K	

Production, Harvest and Postharvest Practices

Planting Material	May be direct seeded 1-2 cm deep, but it is usually transplanted. After hardening, plants are placed in the field when they are 4-6 weeks old, with the crown below the soil surface to reduce damage caused by wind.
Varieties	There are three major maturity cultivar types: early (for summer and autumn harvest), intermediate (late autumn and early winter), and late (winter and spring).
Spacing	Transplants are placed 30-60cm apart in single rows on beds of 100cm wide. Approximately 30-60,000 plants/ha
Site selection and Field Preparation	Level soil to permit irrigation. Till in fall for early spring planting. Raised beds sloping to south, east-west rows. Fine seed bed.
Time to harvest	75 - 100 days after transplanting, when further growth can result in loss of head compactness. Longer for late types, shorter for early types.
Length of harvest	2-4 times per field throughout 3 weeks, due to non uniform maturity of plants.
Expected yields	12-18 ton/ha
Harvest	Hand harvest by cutting stem below the base of the curd. Cool by placing immediately in cold water, drying on screen tables. Can be wrapped in plastic to prevent desiccation.
Storage	Store for up to 3 weeks at 0°C, 95-98% R.H. Freezing injury at -0.8°C.
Pests and diseases	Weeds, insects, nematode, viral/fungal/bacterial diseases; prevention and avoidance most effective management strategy and most profitable

Prepared by Maria Paz Santibanez, Mark Bell and Ron Voss, 2012.

Primary references: Cauliflower production in California www.vric.ucdavis.edu; Cauliflower Postharvest Quality <http://postharvest.ucdavis.edu/pfvegetable/Cauliflower/>; UC IPM Pest Management Guidelines www.ipm.ucdavis.edu; Cauliflower; Oregon State University <http://nwrec.hort.oregonstate.edu/cauliflower.html>; Rubatzky, V.E. and Yamaguchi, M. 1997. World Vegetables, 2nd Ed.

For more information visit International Programs <http://ip.ucdavis.edu>.
Copyright © UC Regents Davis campus, 2012. All Rights Reserved.