



Cucumber

About Cucumbers

Cucumber is a tender warm-season annual vegetable that can be grown for fresh table use (slicing varieties) or for pickling. Cucumbers are mostly seeded (vacuum or direct hand seeded) although some transplanting is done under plastic tunnels. Cucumbers can be grown in the open field or under row covers, or in greenhouses.



Climate and Soil

Temperature	Frost tolerance	Water needs	Tolerance to waterlogging	Drought tolerance
Warm, best from 18-24°C. Seed germination from soil temperature 16-35°C (rapid germination at 25-35°C). Chilling injury below 13°C.	Sensitive to frost at any growth stage.	Requires frequent irrigation to avoid stress particularly in fruit filling.	Young plants susceptible to damping-off diseases	Poor during growing period; stress can result in poorly shaped and curved cucumbers.
Humidity tolerance	Wind tolerance	Soil needs	Nutrient requirements	
Excessive moisture can enable foliar diseases	Protection of young plants necessary	Sandy – earlier planting; Medium-highest yields; Heavy – risk of poor drainage. Fairly tolerant to salinity.	Moderate N, P, K	

Production, Harvest and Postharvest Practices

Planting Material	Direct seed in warm soil, when there is no frost occurrence. Transplanting and/or plastic tunnels will enable earlier planting and/or harvest.
Varieties	Slicing varieties for fresh market; pickling varieties for processing and sometimes fresh markets. Only parthenocarpic varieties will not need pollination, otherwise bee pollination is essential.
Spacing	Varies. Direct seeded 20-30 cm spacing between plants, 90-180cm between rows. Closer spacing for pickling varieties, wider spacing for slicing varieties. Approx. 18,000-55,000 plants/ha
Site selection and Field Preparation	Level soil to permit irrigation. Till in fall for early spring planting. Raised beds to increase soil surface area, aeration, drainage. Fine seed bed.
Time to harvest	55-70 days after planting, fruit good size but before seeds fully enlarge and harden.
Length of harvest	Depends on variety; 2 - weeks
Expected yields	15-25 t/ha
Harvest	Hand harvest, 1-3 times/week, and more frequently for pickling cucumbers, before they turn yellow.
Storage	Cucumber can be stored for 10-14 days at temperatures of 10-13°C and 85-90% relative humidity. Sensitive to ethylene, should not be stored with other ethylene-generator produce.
Pests and diseases	Weeds, insects, nematode, viral/fungal diseases; prevention and avoidance most effective management strategy and most profitable.

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Primary references: Schrader et al. Cucumber Production in California. <http://anrcatalog.ucdavis.edu/pdf/8050.pdf>;

Suslow, T.V. and Cantwell, M. Cucumber: Recommendations for Maintaining Postharvest Quality <http://postharvest.ucdavis.edu/>; Rubatzky, V.E. and Yamaguchi, M. 1997. World Vegetables, 2nd Ed.

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