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## Cucumber in the Garden

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### Summary

Cucumbers grow best in sunny locations and in fertile, well drained soils. Incorporate organic matter and a complete fertilizer into the area before planting. Plant 4-6 cucumber seeds directly in the garden when soils are 65°F. Seeds should be planted 1 inch deep, 12-18 inches apart, in rows 4 feet apart. Thin after emergence to two plants per location. Transplant cucumber 2 feet apart through black plastic for early maturity. Use row covers or hot caps to protect the plants when planting before the frost-free period. After the vines develop runners, side dress with additional nitrogen fertilizer. Irrigation should be deep and frequent. Plastic and organic mulches help conserve water and reduce weeding; however, do not apply organic mulches until soils have warmed to 75°F. Control insects and diseases throughout the year. Harvest cucumbers when fruits are young and tender.

### Varieties

Marketmore, Spacemaster, Sweet Success, SMR58, Armenian, and Boston Pickling are excellent cucumber varieties. Most varieties will grow in Utah so check for availability with your local garden center or seed catalog.

### How to Grow

**Soil:** Cucumbers prefer organic rich, well-drained, sandy soils for best growth. Most Utah soils will grow cucumbers provided they are well drained.

**Soil Preparation:** Choose a site in your garden that receives full sun. Before planting, determine fertilizer needs with a soil test, then follow the recommendations given with the report. If

fertilizer applications are warranted, work the fertilizer into the top 6 inches of soil. If you fertilize with compost, apply no more than 1 inch of well-composted organic matter per 100 square feet of garden area.

**Plants:** Cucumber can be grown from seed or transplants. Seed should be planted 1 inch deep. Transplants should have 2-3 mature leaves and a well-developed root system before moving into the garden. Allow 4-6 weeks to grow transplants. Seeds germinate in 5-10 days at temperatures between 65-85°F. Transplants mature about 2 weeks before seeded cucumbers.

**Planting and Spacing:** Cucumber should be planted when soils are 65°F or after all frost danger has past. Plant 4-6 seeds every 12-18 inches in rows 4 feet apart. After they have two leaves, thin to 2 plants per location. Transplants should be planted 2 feet apart in row, with rows 4 feet apart. Avoid damaging the roots when planting which slows establishment and growth.

**Mulch:** Black plastic mulch warms the soil, conserves water, and helps control weeds. Plastic mulches allow earlier planting and maturity, especially with transplants. After laying out the mulch, secure the edges with soil and cut holes for seeds or transplants. When using plastic mulch and row covers, seeds or plants can be set out 2-3 weeks before the last frost date. Do not apply organic mulches (grass clippings, straw, newspapers, etc.) until soils are warmer than 75°F. Both plastic and organic mulches help conserve water and control weeds.

**Row Covers:** Row covers enhance growth and earliness. Hotcaps, plastic tunnels, fabric covers, and other devices help protect seedlings and transplants from cool air temperatures. Use a thermometer to help determine the temperature under row covers. Plants grown under row covers require ventilation when air temperatures exceed 80°F. Covers need to be removed when plants start to flower or when temperatures under the covers exceeds 90°F. Hot temperatures will reduce fruit set and affect fruit quality. Remove covers when weather has stabilized.



**Irrigation:** Water deeply and infrequently, applying 1-2 inches per week depending on plant size. Use drip irrigation if possible. Mulch around the plants will help conserve soil moisture and reduce weed growth. Irrigate so the moisture goes deeply into the soil. Avoid water stressing the plants as this causes the fruits to be bitter, have pointed ends, and be misshapen.

**Fertilizer:** After the vines develop runners, side dress each plant with 3-4 tablespoons of a nitrogen fertilizer (21-0-0), sprinkled around the plant, then water in the fertilizer. Sidedress before the plant starts to flower.

### Problems

**Weeds:** Plastic and organic mulches effectively control weeds. Healthy vigorous vine growth will also smother weeds. Control weeds when plants are small and do not damage roots when cultivating.

**Insects and Diseases:** For more detailed information on insect and diseases visit the Utah Pests website ([www.utahpests.usu.edu](http://www.utahpests.usu.edu)).

Insect	Identification	Control
Aphids	Green or black soft-bodies insects that feed on underside of leaves. Leaves become crinkled and curled. May transmit virus diseases. Secreted honeydew makes plants appear shiny, wet or sticky.	Use insecticidal soaps or strong water stream to dislodge insect.
Cucumber Beetles	Adults have stripes or spots and feed on leaves and vines which reduces vigor. They transmit bacterial disease. Larvae bore into roots and stems causing plants to wilt and die.	Application of chemicals at first appearance is needed to control this pest.
Disease	Symptom	Control
Powdery Mildew	White fungal patches start on older leaves. The disease eventually spreads to all plant parts. The foliage dies, exposing fruits to the sun, which causes premature ripening.	Plant resistant varieties.
Wilt Diseases	Leaves wilt on one or more vines. Plants often die. Streaking, slime formation, or gummy exudates visible on stems. Diseases are caused by different pathogens.	Identify causal disease. Treat disease as recommended once identified.
Virus	Leaves are light green, mottled, malformed, dwarfed and curled. Early infection affects fruit shape and flavor. An aphid transmitted disease.	Control aphids. Destroy severely infected plants.

## Harvest and Storage

Cucumbers are ready to harvest 5-7 days after flowering. Do not let fruits get too large as flavor decreases with age, seeds begin to mature, and the skin get tough. Handle carefully as fruits bruise easily. Pick regularly to encourage continual production. Cucumbers can be stored for 10-14 days at 55°F. If held in the refrigerator, fruits will breakdown rapidly and will yellow if stored near apples.

## Productivity

Plant 2-3 cucumbers per person for fresh use and an additional 3-5 plants for canning or pickling. Expect 75-100 lbs. of fruit per 100 feet of row.

## Nutrition

Cucumbers are mostly water. They do contain a small amount of beta carotene, and are low in fat, protein, and carbohydrates.

## Frequently Asked Questions

*Some of my small cucumbers are badly misshapen. Will they develop into normal cucumbers?* No.

They should be removed from the vines. Misshapen cucumbers may result from poor pollination, low soil moisture or soil fertility. Side-dressing with a complete fertilizer and keep the soil uniformly moist.

*Is there really a "burpless" cucumber?* Yes. Burpless cucumbers are no longer considered novelties and are offered in most garden catalogs. They are mild, sweet and crisp when fresh. The skin is tender and free of bitterness, although many people peel the skin off. Most varieties are 10 to 12 inches long and curved, unless grown on a trellis. Armenian is considered a burpless type.

*How far away from melons should I plant my cucumbers to avoid cross pollination?* Contrary to popular belief, cucumbers do not cross-pollinate with cantaloupe, squash or watermelons and cause them to become bitter, tasteless or off-flavored. Cucumbers and melons do require considerable space to grow so plant the rows far enough apart for good vine growth without overlapping.

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