EXTENSION
UtahState UNIVERSITY
Practical Solutions for a Complex World
FACT SHEET
COOPERATIVE EXTENSION

September 2004 (pr) HG/2004-10

Watermelon in the Garden

Dan Drost and ***Rick Hefelbower***, Vegetable Specialists

Summary

Watermelons prefer a sunny location and fertile, well drained soils. Incorporate plenty of organic matter and a complete fertilizer into the area before planting. Plant 4-6 seeds, 1-2 inches deep, in mounds 4 feet apart when soils are 65ºF. Thin the mounds after emergence to two plants. Transplant watermelon 2 feet apart through black plastic for early maturity. Use row covers 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 infrequent. Plastic and organic mulches help conserve water and reduce weeding. Do not apply organic mulches until soils have warmed to 75F. Control insects and diseases throughout the year. Harvest watermelons when the tendril is dry, the ground spot is yellow, and the skin is dull colored.

Recommended Varieties

Crimson Sweet and Mirage Hybrid are large (15-25 lb) red-fleshed melons. Mickylee and Minilee are smaller (10-15 lb) icebox types. Golden Crown and Yellow Baby are yellow-fleshed varieties. There are many other good watermelon varieties for sale at local gardening outlets and through seed catalogs. Most grow well in Utah.

How to Grow

Soils: Watermelons prefer organic, rich, well-drained, sandy soils for best growth. Most soils will grow watermelons provided they are well drained.

Soil Preparation: Before planting, incorporate up to 4 inches of well-composted organic matter. Apply 4-6 cups of all-purpose fertilizer (16-16-8 or 10-10-10) per 100 square feet before planting.

Plants: Watermelons can be grown from seed or transplants. Seed should be planted 1-2 inches deep. Transplants should have 2-3 mature leaves and a well developed root system. Transplants mature about 2 weeks before seeded melons and should be used in short growing areas of Utah.

Planting and Spacing: Plant when soils are 65ºF or after frost danger has past. Plant 4-6 seeds in mounds 4 feet apart. After they have two leaves, thin to two plants per mound. Transplants should be planted 2 feet apart in the row with rows 4-6 feet apart. Avoid damaging the roots when planting which slows establishment and growth.

Mulches: Black plastic mulch warms the soil, conserves water, and helps control weeds. Plastic mulches allow earlier planting and maturity, especially with transplants. Lay the plastic, secure the edges with soil, and cut holes for the seeds or transplants. When using plastic mulches and row covers, seeds or plants can be set out 2-3 weeks before the last frost. Do not apply organic mulches until soils are warmer than 75ºF. Grass clippings, straw, newspapers, etc., also conserve water and control weeds.

Row Covers: Hotcaps, plastic tunnels and fabric covers protect seedlings and transplants from cool air temperatures. Row covers enhance growth and earliness. Covers need to be removed when plants start to flower or when temperatures exceed 90F.

Water: Water deeply and infrequently, 1-2 inches per week. Use drip irrigation if possible. Mulch around the plant will conserve soil moisture and reduce weed growth. Irrigate so that moisture goes deeply into the soil. To improve flavor, reduce watering amounts as the fruits ripen.

Fertilization: After the vines develop runners, side dress with a nitrogen fertilizer (34-0-0) using 1-2 tablespoons per plant or mound. Incorporate the fertilizer at least 6 inches away from the plants..

Problems

Weeds: Plastic and organic mulches effectively control weeds. Heavy vine growth by watermelon will also smother weeds.

Insects and Disease:

Insect	Identification	Control
Aphids	Green or black soft-bodied 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 insects.
Cucumber Beetles	Adults have stripes or spots and feed on leaves and vines which reduces vigor. May 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

Watermelon fruits take 35-45 days to mature from flowering. Use the following guide to determine maturity. The curly tendril opposite the fruit should be brown and withered; the ground spot under the fruit changes from white to yellow; and the skin color changes from shiny to dull. Pick watermelons as they ripen. Watermelon will store for 1-2 weeks if held at 45-50ºF.

Productivity

Plant 3-4 watermelons per person for fresh use and an additional 3-4 plants for juicing or freezing. Expect 40 fruits per 100 feet of row.

Nutrition

Watermelons are mostly water. A two cup serving has 80 calories, is low in fat and is an excellent source of vitamin A and vitamin C.

Frequently Asked Questions

My watermelons are not very sweet or flavorful. Is the low sugar content caused by the watermelons crossing with other vine crops in the garden? No. Although watermelon varieties cross with one another, but the effect of this cross-pollination is not evident unless the seeds are saved and planted the following year. The poor flavor of your melons may result from wilting vines, high temperatures, or a short growing season in extreme northern areas.

What can I do to prevent my watermelons from developing poorly and rotting on the ends? This condition is similar to blossom end rot of tomatoes and is caused by extremely dry weather when the melons were growing. It may be aggravated by continued deep hoeing, close cultivation or poor irrigation. Mulching the plants with black plastic film helps reduce this problem.

This publication is issued in furtherance of Cooperative Extension work. Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Jack M. Payne, Vice President and Director, Cooperative Extension Service, Utah State University.