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## GROWING TOMATOES IN WESTERN WASHINGTON

The tomato is the most popular vegetable grown in home gardens. Because of cold, wet springs and low night temperatures during the growing season, careful variety selection and appropriate cultural practices are necessary to grow tomatoes successfully in western Washington.

### VARIETY SELECTION

Most tomato varieties do not perform acceptably in western Washington. In order to be acceptable, varieties should ripen early, be disease resistant, have good color and taste, yield well, and be relatively free of cracking and blossom end rot. The following varieties have been selected as satisfactory from trials at Washington State University experiment stations in Mount Vernon, Puyallup, and Vancouver. There are in addition to these, a few locally adapted varieties developed and controlled by individual plant producers. Unless seed of a variety is available to the general public, it is not included.

Varieties are classified as self-pollinated or hybrid. Self-pollinated means that plants grown from seed have the same characteristics as their parents. Therefore, seed from self-pollinated varieties can be saved for growing plants the following season. Hybrid varieties are the result of artificial cross-pollination using specific parents, resulting in seed that has certain desirable horticultural characteristics. These traits do not carry over into the next generation under self-pollinating conditions. Therefore, seed from hybrid varieties should not be saved for use the following season.

The growth habit of tomato plants can be described as determinate or indeterminate. On determinate plants most shoots, including the terminal one, develop flowers and subsequent fruit and no further vegetative growth occurs. This causes most of the determinate varieties to concentrate many fruits on small plants. Indeterminate plants produce fruits on laterals that develop where the leaves join the stem. Lateral vegetative shoots also rise the same way and cause the plant to continue to grow in

size. Indeterminate plants continue to grow and produce fruits throughout the season.

**Site Selection.** Tomatoes are a warm-season crop and need every available heat unit in western Washington. Plant tomatoes in the sunniest, warmest locations possible. Sites sheltered on the north side by buildings, fences, or other plantings are desirable.

**Climate Modification.** Cultural practices which warm the microclimate around the tomato plants accelerate growth and speed ripening of the fruits. Useful cultural practices include plastic mulches to warm the soil, placing rubber tires around plants to capture and hold heat, and covering plants with plastic tents or hotcaps early in the season.

**Transplanting.** Plant greenhouse-grown plants after the possibility of frost is over (approximately May 15-June 5). Slant taller plants so that part of the lower stem is in the soil, leaving about 5 inches of the top above ground. This allows for more root growth and development of a sturdier plant. Set plants at least 2 1/2 feet apart.

**Fertilizing.** Tomatoes do best in a well-drained, moderately fertile soil. They require a moderate amount of nitrogen and larger amounts of phosphorus and potash. Normally one-third cup of 5-10-10 fertilizer applied at planting time is sufficient. Place the fertilizer in a ring four inches away from the plant and three inches deep in the soil.

**Watering.** Avoid frequent watering. Soak the soil once each week to ten days rather than sprinkling lightly several times each week.

**Staking and Pruning.** Staking of larger indeterminate plants is recommended. Staking makes caring for tomatoes easier and helps reduce fruit rots. Stakes should be driven into the soil about four to six inches from the plants soon after transplanting. As the

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## ACCEPTABLE TOMATO VARIETIES

## EARLIEST VARIETIES

Variety	Genetic Type	Growth Habit	Plant Size	Fruit Size	Other Characteristics
IPB* (Early Swedish)	Self-pollinating	Indet.	3-4 ft.	Medium-small	Fruits sweet and flavorful. Skins slightly tough. No cracking. Produces fruit throughout season. Medium yield.
PRESTO	Hybrid	Det.	1 1/2-2 ft.	Small	Light red flesh, good flavor. No cracking. High yield.
PIXIE	Hybrid	Det.	1 1/2-2 ft.	Medium-large	Fruits with uniform red flesh. No cracking. Medium yield. Attractive ornamental plant.

## NEXT EARLY VARIETIES

EARLY GIRL*	Hybrid	Indet.	3-4 ft.	Medium-large	Fruits round, uniform, juicy, with good flavor. No cracking. High yield.
NEW YORKER	Self-pollinating	Det.	2-3 ft.	Medium-large	Fruits smooth, uniform, with good flavor. Moderate cracking, high yield, long season.
SMALL FRY	Hybrid	Indet.	3-4 ft.	Very small	Fruits bright red, 1 inch diameter, juicy, with excellent flavor. No cracking. High yield.
SPRINGSET	Hybrid	Det.	2-2 1/2 ft.	Medium	Fruits smooth-skinned, uniform, with good flavor. Productive.

## MIDSEASON VARIETIES

JETSTAR	Hybrid	Indet.	2 1/2-3 ft.	Large	Fruits uniform, skin red-orange, medium red flesh. Good flavor. Light cracking. High yield.
JETFIRE	Hybrid	Det.	2-3 ft.	Large	Fruits uniform, orange-red skin, red-pink flesh. Good flavor. Light cracking. High yield.
ULTRA GIRL	Hybrid	Indet.	3-4 ft.	Large	Fruits uniform, red-orange skin, red-pink flesh. Good flavor. Light cracking. Medium yield.

\*Highly recommended for colder areas of Washington.

## ACCEPTABLE TOMATO VARIETIES (Contd.)

Variety	Genetic Type	Growth Habit	Plant Size	Fruit Size	Other Characteristics
FANTASTIC	Hybrid	Indet.	2 1/2-3 ft.	Large	Uniform red flesh, somewhat non-uniform shape. Good flavor. Moderate cracking. Medium yield.
RUSHMORE	Hybrid	Indet.	2 1/2-3 ft.	Large	Smooth, uniform-shaped, red-orange fruits. Good flavor. Very productive.
WILLAM- ETTE	Self- pollinating	Det.	2-3 ft.	Medium	Smooth globe-shaped, firm, bright red fruits. Moderate yield.

## NOVELTY VARIETIES

PATIO	Hybrid	Det.	1 1/2-2 ft.	Medium	Uniform red fruits. Light cracking. Late ripening. Attractive ornamental plant, good for containers. Medium yield.
TINY TIM	Self- pollinating	Det.	1-1 1/2 ft.	Very small	Fruits red-orange, medium-red flesh. No cracking. Good for containers. Late ripening in field; early ripening in greenhouse. Medium yield.
GOLDEN JUBILEE	Self- pollinating	Indet.	3-4 ft.	Medium large	Heart-shaped, yellow-orange fruits. Milk flavor. Moderate cracking. Very late ripening. Medium yield.
YELLOW PEAR	Self- pollinating	Indet.	2-3 ft.	Small	Pear-shaped, yellow fruits. Mild flavor. No cracking. Attractive for special salads. Mid-late season. Very low yield.

plants develop, pull them up alongside the stakes and tie them loosely with heavy twine every 10 to 12 inches.

If tomatoes are staked, they should be pruned to two or three main stems. New shoots (suckers) will develop at the junction of every leaf with the main stems. Once a week, remove all of these new shoots from the main stems. Shoots can be removed by pinching them off with your fingers.

**Mulching.** Mulches help retain soil moisture and reduce competitive weed growth. Do not apply mulches (except plastic) around tomato plants until soil has warmed (usually late June).

**Storage.** After the first fall frost, a good part of the remaining fruit can be stored and ripened. A storage

temperature of 50-55 degrees F. (10-13 degrees C) with high relative humidity is recommended for tomatoes in the pink-red to firm-red stage. Fruit is subject to chilling injury when held below 50 degrees F. (10 degrees C). The best ripening temperature for mature green tomatoes is 65-68 degrees F. (18-20 degrees C). Light is not essential for ripening in storage.

**Saving Seed.** Cut ripe fruit of self-pollinating varieties crosswise and squeeze juice and seed from the cells into a container. Let it stand at room temperature for about 5 days until the jellylike substance that clings to the seed comes free. Stir the mixture until seeds sink to the bottom. Drain off the top layer and rinse until the seed is clean. Dry the seed on a newspaper and store in a cool, dry place.

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