

**GROWING INFORMATION**

*Solanum lycopersicum*

**DETERMINATE:** (bush) varieties do not need pruning and may be grown with or without support; fruit ripens within a concentrated time period.

**INDETERMINATE:** (climbing) varieties should be staked, trellised, or caged, and pruned for best results; fruit ripens over an extended period. Call for additional cultural tips.

**CULTURE: GROWING SEEDLINGS:** Don't start too early! Root-bound, leggy plants that have open flowers or fruit when planted out may remain stunted and produce poorly. Sow in flats, using a soilless peat-based mix (NOT potting soil), 5-6 weeks before plants can be transplanted out after frost danger. Keep temperature of the starting mix at 75-90°F (24-32°C); tomato seeds germinate very slowly in cooler soil. When first true leaves develop, transplant into plug trays or 3-4" pots for large, stocky 7-8 week transplants for earliest crops. Grow seedlings at 60-70°F (16-21°C). Water only enough to keep the mix from drying. Fertilize with fish emulsion or a soluble, complete fertilizer.

**TRANSPLANTING OUTDOORS:** Transplant into medium-rich garden or field soil 12-24" apart for determinate varieties, 24-36" apart for indeterminate, unstaked varieties, and 14-20" for staking. Water seedlings with a high-phosphate fertilizer solution (see Index). For earliest crops, set plants out around the last frost date under floating row covers (see Index) which will protect from frost to about 28°F (-2°C). If possible, avoid setting out unprotected plants until night temperatures are over 45°F (7°C). Frost will cause severe damage!

**FERTILIZER:** Abundant soil phosphorus is important for early high yields. Too much nitrogen causes rampant growth and soft fruits susceptible to rot.

**DISEASES:** Learn the common tomato diseases in your area. Select resistant varieties. For prevention, use young, healthy transplants, avoid overhead irrigation, plow in tomato plant refuse in the fall, rotate crops, and do not handle tobacco or smoke before handling plants. Fungicides can reduce certain diseases when properly selected and applied.

**BLOSSOM END ROT:** Prevent it by providing abundant soil calcium and an even supply of soil moisture.

**INSECT PESTS:** Use row covers to protect young seedlings from flea beetles. Tomato hornworms can be controlled with bacillus thuringiensis. Use spinosad for potato beetle larvae and adults.

**HARVEST:** Fully vine-ripen fruit only for local retailing or use. To deliver sound fruit, pick fruit less ripe the further the distance and the longer the time between the field and the customer.

**STORAGE:** Store firm, ripe fruit 45-60°F (7-16°C) for 4-7 days.

**DAYS TO MATURITY:** From transplants.

**TRANSPLANTS:** Avg. 850 plants/1,000 seeds, 7,450 plants/oz., 119,000 plants/lb.

**AVG. PLANTING RATE:** Avg. 785 seeds to produce 667 plants needed to plant 1,000 ft. of row. Avg. 8,540 seeds, approx. 1 oz., to produce 1 acre of transplants, 18" between plants in rows 4' apart (7,260 plants needed).

**SEED SPECS:** SEEDS/OZ. (varies): 6,875-15,625 (avg. 8,750).

**PACKET:** 40 seeds, unless otherwise noted.

Germination Guide	
Soil Temp:	°C 5 10 15 20 25 30 35
	°F 41 50 59 68 77 86 95
Optimum Range:	

# Selected to be the



## Indeterminate

Indeterminate (climbing) varieties should be staked, trellised, or caged, and pruned for best results; fruit ripens over an extended period.

**2412 NEW GIRL (F1):** 62 days. (F2, V)

**First early, great taste.** Better tasting and more disease resistant than Early Girl. Hold better than First Lady II. Widely adapted.

**PKT \$3.45; 250 Seeds \$7.30; 500 Seeds \$13.00; 1,000 Seeds \$22.85; 5M @ \$19.45/M.**

**2513 MOUNTAIN MAGIC (F1):** 66 days. (LB, V, F3, AB)

**Excellent flavor and late blight resistant.** Mountain Magic produces high yields of 2 oz., bright red, round salad tomatoes with very sweet flavor. The uniform, crack-resistant fruits may be truss harvested. Great in salads or right off the vine. Indeterminate.

**PKT (15 seeds) \$5.95; 50 Seeds \$18.30; 100 Seeds \$32.75; 250 Seeds \$62.25; 500 Seeds \$114.45; 1,000 Seeds \$215.25; 5M @ \$186.90/M.**



**2671 DAFEL (F1):**

68 days. (F) **Rich, full flavor.** Medium size fruit with outstanding flavor. Smooth, red, 6-7 oz. globes are relatively blemish-free. Can also be harvested with green shoulders for an excellent, unique flavor.

**PKT (15 seeds) \$3.95; 50 Seeds \$7.60; 100 Seeds \$14.30; 250 Seeds \$26.50; 500 Seeds \$47.95; 1,000 Seeds \$89.20; 5M @ \$75.50/M.**

**2087 ESTIVA (F1):** 70 days. (F2, TMV, V)

**Beautiful, smooth fruit.** Medium large, globe-shaped, red fruit. The size is quite uniform, avg. 6-7 oz. Tomatoes are smooth and firm, with a small stem scar, and resist cracking. The taste is excellent. Truss harvest possibilities. For production outdoors or in well-ventilated hoop houses. Good disease resistance.

**PKT \$4.95; 100 Seeds \$9.95; 250 Seeds \$18.95; 500 Seeds \$33.50; 1,000 Seeds \$61.95; 5M @ \$54.40/M.**

# Best for Fresh Market



Indigo Rose



Martha Washington

**2063 BIG BEEF (F1):** ▲  
70 days. (AS, F2, L, N, TMV, V)  
**Nice combination of size, taste, and earliness.** Full-flavored, globe-shaped fruits ripen early for their size. AAS winner.  
**PKT \$3.45; 250 Seeds \$10.45; 500 Seeds \$19.35; 1,000 Seeds \$34.15; 5M @ \$31.08/M; 10M @ \$28.14/M; 25M @ \$26.25/M.**

**3616G INDIGO ROSE:** OG  
75 days.  
**NEW Darkest tomato bred so far, exceptionally high in anthocyanins.** Anthocyanins are powerful anti-oxidants. In the early stages of fruit development, Indigo Rose develops a dark purple pigment in its skin where exposed to direct sunlight. Green when unripe, purple-red when ripe, the 1-2 oz., cocktail-sized tomatoes have good flavor with 'plummy' overtones. Developed by Jim Myers at Oregon State University using traditional plant breeding techniques. Compact indeterminate. **PKT \$3.45; 250 Seeds \$5.35; 500 Seeds \$8.55; 1,000 Seeds \$10.15; 5M @ \$8.00/M; 25M @ \$5.06/M.**

**MARTHA WASHINGTON (F1):** OG  
78 days.  
**NEW Heirloom quality fruit with a more reliable plant.** Great taste like the pink heirloom tomatoes combined with wider adaptability which makes it easier to grow under varied conditions. Soft, melting texture will limit the shipping range. Globe-shaped pink fruits weigh from 8-16 oz. Indeterminate. **Choose organic or nonorganic seeds.**

**3818G Organic** OG  
**PKT (15 seeds) \$4.95; 100 Seeds \$25.60; 250 Seeds \$48.50; 500 Seeds \$89.50; 1,000 Seeds \$169.00; 5M @ \$146.25/M; 25M @ \$136.25/M; 100M @ \$125.00/M.**

**3818 Nonorganic**  
**PKT (15 seeds) \$4.95; 100 Seeds \$22.60; 250 Seeds \$42.50; 500 Seeds \$77.70; 1,000 Seeds \$145.95; 5M @ \$123.85/M; 25M @ \$115.45/M; 100M @ \$104.95/M.**

**2889 PINK BEAUTY (F1):** O  
74 days.  
**Firm, delicious.** Perfect, pink, medium-size, 6-8 oz., flattened globes have full, rich tomato flavor. One of the best tasting tomatoes in our Albion trials. Healthy plants produce firm, blemish-free fruit. A great variety for market.  
**PKT \$3.45; 250 Seeds \$7.30; 500 Seeds \$13.00; 1,000 Seeds \$22.85; 5M @ \$19.45/M.**

## Red Indeterminate Comparison Chart

Variety	Days	Size (oz.)	Firmness	Taste	Disease Resistance
2412 New Girl	62	4-6	Firm	Very Good	F2, V
2513 Mountain Magic	66	2	Firm	Excellent	LB, V, F3, AB
2671 Dafel	68	6-7	Firm	Excellent	F
2087 Estiva	70	6-7	Firm	Excellent	F2, TMV, V
2063 Big Beef	70	10-12	Firm	Very Good	AS, F2, L, N, TMV, V
3616G Indigo Rose	75	1-2	Firm	Very Good	—

Disease code definitions can be found on our Reference Page on page 122.

## Glossary Of Terms

We are dedicated to helping you understand our "growing lingo". Below are a list of terms used in the growing and gardening industry. We hope you find them useful.

**CERTIFIED ORGANIC**—Seeds harvested from plants that are grown organically; i.e., without synthetic fertilizer and pesticides. Most of our organic part numbers have a "G" included with the part number. Look for the **OG** symbol.

**DAY NEUTRAL**—Plants that do not initiate flowering based on the amount of sunlight they receive in a day.

**F1 HYBRID**—F1 refers to "first filial" or first generation offspring. Hybrid varieties of vegetables and flowers are typically F1 hybrids.

**GREEN MANURE**—Replenishes organic matter. Nutrients are released into the topsoil as the green manure decomposes. Green manures are often a mix of two or more types of seed.

**HEIRLOOM**—An old variety that owes its present availability to the seed-saving efforts of amateurs.

**HYBRID**—The offspring of a cross between two or more varieties, usually of the same species.

**INOCULATION**—Introducing beneficial bacteria to legumes to ensure the formation of high-nitrogen nodules on their roots.

**NON-MTO**—Not tested for Lettuce Mosaic Virus. All items not tested will have an "N" included with the part number.

**OPEN-POLLINATED**—A non-hybrid variety, one that can reproduce itself in kind.

**PELLETED**—Seeds are coated with a tough, clay-based material that allows for easier growing and does not harm the seeds or soil. All pelleted products will have a "P" included with the part number.

**PVP**—Plant Variety Protected - Unauthorized marketing of seeds prohibited.

**RESISTANT/RESISTANCE**—Implies that a variety has a certain amount of resistance when exposed to a disease-causing pathogen such as a fungus, bacteria, or virus.

**SOILLESS MIX**—A combination of peat moss, sphagnum moss, perlite, vermiculite, bark, sand, and sometimes additives such as wetting agents, fertilizers, or lime. It is used in place of garden soil for starting seedlings because it weighs less, has better drainage, and does not contain weed seeds or disease organisms often found in outdoor soil.

**TOLERANT/TOLERANCE**—Tolerance implies that a variety will perform relatively well when exposed to environmental stresses such as cold weather, hot weather, or drought.

**TREATED**—Seeds that have a coating of fungicides and/or insecticides intended to protect the seeds from rotting or insect damage in the soil before germination. All treated products will have a "T" included with the part number.

**UNDERSEEDING**—The practice of using green manures as "living mulch". Corn is often underseeded with clover once the corn reaches 2'. Clover outcompetes the weeds and provides a green manure after the corn is harvested.

**UNTREATED**—Seeds that have no chemical treatments. All seeds in this catalog are untreated unless noted otherwise.

**VARIETY**—A genetically similar population of plants, distinct in one or more traits from other populations.

## Natural II

Natural II is an innovative, organic seed enhancement made with NOP-compliant materials and approved for use in organic operations. It is applied to seed as a film coating and delivers a beneficial nutrient package directly to the seed; thereby facilitating the development of a robust root system and creating a healthy plant that can perform better in less-than-ideal conditions. In our trials, it has performed as well as traditional chemical-based treatments for planting in cold, wet soils. All items with this treatment will have a "B" included with the part numbers.

## Life Cycle Codes

**(A) Annual:** germinates, produces seeds, and dies in one year. It may self-sow, thereby giving the impression of being perennial.

**(B) Biennial:** germinates, produces seeds, and dies in two years; usually but not always producing flowers only the second year.

**(TP) or (P/A) Tender Perennial:** persists more than two years in the zones specified and blooms the first year, allowing it to be grown as an annual elsewhere.

**(P) Perennial:** persists more than two years in the zones specified, but does not bloom the first year and thus cannot be grown as an annual.

## Vegetable Disease Codes

A	Anthracoze
AB	Alternaria (Early) Blight
ALS	Angular Leaf Spot
AS	Alternaria Stem Canker
B	Bacterial Wilt
BB	Bacterial Blight
BBS	Bacterial Brown Spot
BLS	Bacterial Leaf Spot
BMV	One or more races of Bean Mosaic Virus
BYMV	Bean Yellow Mosaic Virus
CMV	Cucumber Mosaic Virus ("Blight")
CTM	Curly Top Beet Mosaic Virus
CVYV	Cucumber Vein Yellowing Virus
DM	Downy Mildew (with specific races)
E	Enation Mosaic Virus
F	Fusarium Wilt (Race 1)
F2	Fusarium Wilt (Races 1 & 2)
F3	Fusarium Wilt (Races 0, 1, & 2)
FOR	Fusarium Crown and Root Rot
HB	Halo Blight
L	Grey Leaf Spot
LB	Late Blight
LM	Resistant to Leaf Molds A-E
LMV	Lettuce Mosaic Virus
MNCLB	Moderate Northern Corn Leaf Blight
MR	Moderate Common Rust
MSCLB	Moderate Southern Corn Leaf Blight
MSM	Moderate Smut
MSW	Moderate Stewart's Wilt
MTO-10	Indicates seeds have been tested for Lettuce Mosaic Virus, and that none was found in a sample of 10,000 seeds or more.
MTO-30	Indicates seeds have been tested for Lettuce Mosaic Virus, and that none was found in a sample of 30,000 seeds or more.
N	Nematodes
NCLB	Northern Corn Leaf Blight
PL	Corky Root Rot
PLR	Pea Leaf Roll Virus
PM	Powdery Mildew
PMV	Pepper Mosaic Virus
PRV	Papaya Ringspot Virus
PST	Bacterial Speck
PVY	Potato Virus Y
PY	Pythium Resistance
R	Common Rust
S	Scab
SCLB	Southern Corn Leaf Blight
SM	Smut
SW	Stewart's Wilt
TEV	Tobacco Etch Virus
TMV	Tobacco Mosaic Virus
TSWV	Tomato Spotted Wilt Virus
V	Verticillium Wilt
W	Common Wilt
WMV	Watermelon Mosaic Virus
WR	White Rust
ZMV	Zucchini Mosaic Virus

## Hardiness Zone Chart

## Winter Low Temperature

Zone 1	..... Below -50°F/-45°C
Zone 2	..... -50° to -40°F/-45° to -40°C
Zone 3	..... -40° to -30°F/-40° to -35°C
Zone 4	..... -30° to -20°F/-35° to -29°C
Zone 5	..... -20° to -10°F/-29° to -23°C
Zone 6	..... -10° to 0°F/-23° to -18°C
Zone 7	..... 0° to +10°F/-18° to -12°C
Zone 8	..... +10° to +20°F/-12° to -7°C
Zone 9	..... +20° to +30°F/-7° to -1°C
Zone 10	..... +30° to +40°F/-1° to 4°C