

Tomatoes

Tips & Tricks to Maximize Your Harvest and Minimize Insect & Disease Problems



melindamyers.com



SELECTION

CONSIDER HOW YOU PLAN TO USE THE TOMATOES

- Snacking
- Slicing
- Cooking
 - Making sauce
 - Canned and frozen for later use

GROWING CONDITIONS

- Tomatoes produce best in full sun
- Temperature and weather influences productivity
 - Heat
 - ✦ Daytime temperatures rise above 90°F and night temperatures remain above 70°F
 - Blossom drop
 - Poor fruit development
 - Low humidity
 - ✦ Pollen not viable
 - High humidity
 - ✦ Pollen is too sticky
 - Doesn't move from the male to the female part of the flower
 - Cool weather
 - ✦ Night temperatures below the optimum 59 - 68°F
 - Reduces the amount and viability of pollen that the plant produces

CHECK WITH YOUR LOCAL EXTENSION SERVICE FOR A LIST OF TOMATO VARIETIES SUITABLE FOR YOUR LOCATION. YOU'LL FIND ONE BEST SUITED TO YOUR CLIMATE AND THE LENGTH OF YOUR GROWING SEASON

Wild Valley Farms

Healthy Garden, Healthy Life

Our family of products include Wool Pellets an organic innovative product to help your plants stay hydrated during the hot summer months. Wool Pellets also improve soil health and help your plants grow. Use Wool Pellets and enjoy this summer's vacation.

For more information, visit

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TERMS TO KNOW

D - DETERMINATE

- These tomatoes grow a certain size and stop
- All the fruit tends to ripen in a relatively short period of time
- Great for containers, hanging baskets or training on short supports or in towers

I - INDETERMINATE

- These tomatoes continue to grow, flower and produce new fruit throughout the season
- Many gardeners pinch out the growing tips about a month before the average first fall frost
 - This stops the plants growing new flowers and fruit that are unlikely to ripen before the killing frost
- You'll need tall stakes and big towers to keep these large plants upright

COMPACT

- Smaller plants that don't need staking
- Perfect size for:
 - Tabletop containers
 - Window boxes
 - Hanging baskets

DISEASE RESISTANCE CODES

- V (Verticillium)
- F (Fusarium)
- FF (Fusarium Races 1 & 2)
- FFF (Fusarium Races 1, 2 & 3)
- N (Nematode)
- T (Tobacco Mosaic Virus)
- LB (Late Blight)
- EB (Early Blight)
- St (Stemphylium gray leaf spot)
- A (Alternaria stem canker)
- C (Cladosporium Leaf Mold)
- TSWV (Tomato Spotted Wilt Virus)
- **Johnny's Seeds has comprehensive list of these**

AAS - ALL-AMERICA SELECTIONS

- Plants with this designation have been tested nationally and selected for their suitability for home gardens
- Winners have improved flavor, growth habit, disease resistance or other quality that makes them better than varieties that are already on the market

H - HEIRLOOM

- Most agree an heirloom is a plant variety that has been around for more than 50 years
 - Preserved and kept true to its parentage



About Melinda

Nationally known gardening expert, TV/radio host, author & columnist Melinda Myers has over 30 years of horticulture experience and has written over 20 gardening books, including *Can't Miss Small Space Gardening*, the *Midwest Gardener's Handbook*, and *Jackson and Perkins' Beautiful Roses Made Easy*. She hosts the nationally-syndicated "Melinda's Garden Moment" program airing on over 115 TV and radio stations throughout the U.S. Melinda also hosts the internationally distributed Great Courses "How to Grow Anything" DVD series, including the latest *Food Gardening for Everyone* DVD set. She is a columnist and contributing editor for *Birds & Blooms* magazine, writes the twice monthly "Gardeners' Questions" newspaper column and a nationally-distributed gardening column. She appears regularly as a guest expert on national and local television and radio shows.

Visit Melinda's website,
melindamyers.com

HYBRIDS

- These are the result of breeding programs and selected for:
 - Uniform growth
 - Fruit production
 - Other desirable characteristics

DAYS TO HARVEST

- The average number of days from planting until you pick your first ripe tomato
 - You may be harvesting sooner in a hot summer and later during a cooler growing season

JUST A FEW OF THE MANY TOMATO VARIETIES

MATURITY DATES ARE BASED ON DATE TRANSPLANTS PLACED IN THE GARDEN

EARLY FRUITING

- **Early Girl**
 - Indeterminate
 - 4'+ tall
 - 6-8 oz. fruit
 - 50 days
- **4th of July**
 - Indeterminate
 - 4'+ tall
 - 4 oz. fruit
 - 49 days
- **Sub Arctic Plenty**
 - Determinate
 - Up to 4' tall
 - 3-4 oz. fruit
 - 42 days

GREAT SLICERS

- **Beefsteak**
 - Indeterminate
 - 6'+ tall
 - Up to 2 lb. fruit
 - 75 days

- **Big Boy**
 - Indeterminate
 - 4-5' tall
 - 10-16 oz. fruit
 - 78 days

- **Brandywine**
 - Indeterminate
 - 6'+ tall
 - 1.5 lb. fruit
 - 90 days

- **Mortgage Lifter**
 - Indeterminate
 - 6' tall
 - 1 lb. fruit
 - 83 days

- **Whopper (Improved)**
 - Indeterminate
 - 8'+ tall
 - 1 lb.+ fruit
 - 65 days

- **Galahad (AAS 2020)**

- Determinate
- 4' tall
- 12 oz. fruit
- 75 days

PASTE

- **Early Resilience (AAS 2020)**

- Determinate
- 2' tall
- 3-3.5 oz. fruit
- 70 days

- **Amish Paste**

- Indeterminate
- 3'+ tall
- 8-12 oz. fruit
- 80-90 days

- **Roma**

- Determinate
- 3' tall
- 2 oz. fruit
- 76 days

UPCOMING WEBINARS

Check often as more information and webinars continue to be added.

May 12th

[Top Plants for Rain Gardens, Water Gardens, Shoreline Gardens & Those to Avoid](#)

May 13th

[Planting Your Rain Garden](#)

May 16th

[Perennials for Challenging Growing Conditions](#)

June 3rd

[Creative Container Gardening](#)

June 9th

[Sustainable Lawn and Landscape Care](#)

June 10th

[Gardening During the Summer Months](#)

- **San Marzano**
 - Indeterminate
 - Up to 4' tall
 - 4 oz. fruit
 - 80 days

SMALL FRUITED

- **Apple Yellow (AAS 2020)**
 - Indeterminate
 - Up to 6' tall
 - 1,000 - 1 oz. fruit
 - 110 days
- **Candyland Red (AAS 2016)**
 - Indeterminate
 - 5-7' tall
 - .25 oz. currant-type fruit
 - 55 days

- **Sun Sugar**
 - Indeterminate
 - 7'+ tall
 - 1" fruit
 - 75 days

COMPACT - SMALL CONTAINER OR HANGING BASKET

- **Patio Choice Yellow (AAS 2017)**
 - Determinate
 - 15-18"
 - 100 - .5 oz. fruit
 - 45 days

- **Fantastico (AAS 2014)**
 - Determinate
 - 12-14" in hanging basket
 - 2' in the garden
 - .5 oz. fruit
 - 50 days

- **Tiny Tim**
 - Determinate
 - 10-12"
 - Very small fruit (5" pot)
 - 45 days

- **Red Robin**
 - Determinate
 - 8-12"
 - 1-1.5" fruit
 - 55 days

- **Lizzano (AAS 2011)**
 - Trailing
 - 16-20"
 - .4 oz. fruit
 - 63 days

- **Terenzo (AAS 2011)**
 - Trailing
 - 16-20"
 - .7 oz. fruit
 - 56 days

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COLD TOLERANT AND HEAT TOLERANT

STARTING FROM SEED

GREATEST SELECTION OF VARIETIES

- Start indoors 6 weeks before last spring frost to shorten the time from transplant to harvest
- Start directly in the garden if your growing season (frost free days) is long enough and weather conditions are right for the seeds to sprout, plants to grow and produce fruit

HARDENING OFF TRANSPLANTS

PREPARE PLANTS FOR TRANSITION FROM GREENHOUSE OR INDOORS UNDER LIGHTS TO OUTDOORS

- Stop fertilizing and allow soil to go slightly drier between watering
- Gradually increase the amount of sunlight plants receive each day
 - Start with an hour
 - Increase by an hour
 - Plant ready to move into the garden in 1-2 weeks

SOIL PREPARATION

TOMATOES PREFER MOIST, WELL-DRAINED SOIL

- Lots of ways to accomplish this
 - Add compost
 - ✦ Improves drainage in heavy soil
 - ✦ Increases water-holding ability in sandy soils
 - ✦ Provides a wide array of nutrients over time
 - ✦ Improves plant health
 - Fewer insect and disease problems

CONTAINERS

CONTAINER WITH DRAINAGE HOLES OR SELF-WATERING POT WITH WEEP HOLES

- 2-3-gallon container for small varieties
- 5-gallon or larger for bigger tomato varieties
 - Convert 5-gallon bucket into planter
- Some research suggests growing in a pot that is at least 14", preferably 20" wide, will yield greater results
- Fill with quality potting mix

REDUCE MAINTENANCE

ADD A SLOW RELEASE FERTILIZER, LIKE MILORGANITE, TO THE SOIL OR POTTING MIX AT PLANTING

ADD WILD VALLEY WOOL PELLETS TO POTTING MIX, RAISED BED AND IN-GROUND GARDENS

- Reduces the need to water by 25%
- Sustainable - made from wool waste
- Organic
- University tested

PLANTING

PLANT LONG, LEGGY TOMATOES SEVERAL INCHES DEEP OR IN A SHALLOW TRENCH

- Dig trench 3 to 4" deep
- Remove the lower leaves and lay the plant on its side in the hole
- Carefully bend the stem, so remaining upper leaves are above the soil
- Fill the trench with soil and water

BOTH METHODS ENCOURAGE ROOTS TO FORM ALONG THE STEMS, PRODUCING A MORE ROBUST ROOT SYSTEM

SPACE

- 24-36" apart in the garden
- 1 plant per container for biggest harvest

TRAIN TOMATOES

SPRAWLED ON THE GROUND

- Most tomatoes produced
- Many tomatoes lost to insects, disease and your feet when harvesting

CAGED

- Second best productivity
 - Fewer fruit lost to disease
- Tomato tower placed over plant
- Set in place at time of planting to avoid injuring roots and plants
 - **Vertex is a great option for procrastinators**
- Easier picking

STAKED

- Earliest, but fewest fruit produced
- Labor intensive
 - Select and secure one or two main stems to the stake
 - Use cloth strips, twine or other soft ties to loosely attach these stems to the stake
 - Check several times a week
 - ✦ Continue securing stems as the plants grow
 - ✦ Remove all side branches and suckers that develop between the main stem and leaves



WATER

**CHECK NEW PLANTINGS EVERY DAY OR TWO AND WATER OFTEN ENOUGH TO KEEP THE DEVELOPING ROOT SYSTEM MOIST
GRADUALLY EXTEND THE TIME BETWEEN WATERINGS AS PLANTS BECOME ESTABLISHED**

- Encourage deep roots that are more drought tolerant

WATER ESTABLISHED PLANTS THOROUGHLY WHENEVER THE TOP FEW INCHES OF SOIL ARE CRUMBLY AND JUST SLIGHTLY MOIST

CHECK CONTAINERS DAILY

- Water thoroughly (until excess runs out drainage holes) whenever the top few inches of soil just begin to dry

MULCH

SPREAD A THIN LAYER OF EVERGREEN NEEDLES, SHREDDED LEAVES OR OTHER ORGANIC MULCH OVER THE SOIL SURFACE - INCLUDING CONTAINERS

- Keeps soil consistently moist
- Helps reduce risk of soil borne disease
- Suppresses weeds
- As organic mulches break down, they improve the soil

HARVEST

PICK TOMATOES WHEN FULLY COLORED

- Leave them on the plant an extra 5 or 6 days for even better flavor
 - If hungry animals are not a threat
- Finish ripening indoors if needed
 - Select tomatoes with blossom end greenish-white or starting to show color
 - Store your green tomatoes in a cool (60 - 65°F) location to extend their storage life
 - Spread out the tomatoes on heavy paper or wrap them individually in newspaper so the fruit do not touch
 - They'll ripen over the next few weeks
 - Speed up the process by moving a few tomatoes to a bright, warm location a few days before they are needed

REDUCE TIME TO HARVEST

USE COLD FRAMES, CLOCHES AND ROW COVERS FOR EARLIER PLANTING

SELECT EARLIER RIPENING VARIETIES

STAKE PLANTS FOR EARLIER, BUT FEWER FRUIT

TOMATO TROUBLES

ABIOTIC (not caused by a disease organism or insect)

BLOSSOM END ROT

- Calcium deficiency
 - Often a result of fluctuations in soil moisture
 - Have soil tested before adding calcium

POOR FRUITING

- Heat, cold and humidity
- Drought

DISEASES

- **SELECT DISEASE RESISTANT VARIETIES WHENEVER POSSIBLE**
- **PROPER SPACING, MULCHING AND CARE HELP REDUCE THE RISK**
- **AVOID OVERHEAD WATERING**

SEPTORIA LEAF SPOT

- Fungal disease
 - Usually does not kill the plant, but does reduce yield
- Symptoms
 - Leaves yellow from bottom up
 - Small, gray or brown spots on leaves
- Control
 - Remove and dispose of infected leaves when found

EARLY BLIGHT

- Fungal disease
- Symptoms
 - Brown spots develop, starting on lower leaves
 - Infected leaves eventually turn yellow and drop

LATE BLIGHT

- Fungal disease that quickly kills the plant
- Report to Extension Service so they can monitor impact on nearby tomato and potato farm fields

INSECTS

HORNWORM

- Caterpillar eats holes in leaves and fruit
- Control options
 - Tolerate damage
 - Hand-pick and destroy (usually just one or two)
 - Allow nature to manage this pest
 - ✦ **Parasitic wasps**
 - Organic - ***Bacillus thuringiensis kurstaki***

APHIDS

- Small, tear drop shaped
- Sucks plant juices and secretes the excess as honeydew
- Causes leaves to curl, yellow and in some cases, turn brown
- Control options
 - Wait for lady beetles and green lacewings to manage these
 - Treat with a strong blast of water
 - If needed, use Summit Year-round Spray Oil or insecticidal soap

WHEN OPTING FOR CHEMICAL CONTROL - ORGANIC, NATURAL OR SYNTHETIC

- Read and follow all label directions
- Even natural and organic products are designed to kill things

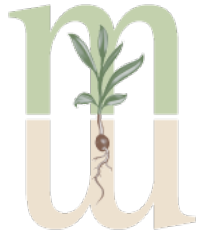


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Birds & Blooms magazine

Books

- Midwest Gardener's Handbook
- Small Space Gardening
- Midwest Lawn Guides
- Minnesota & Wisconsin Getting Started Garden Guide
- Month-by-Month Gardening in Minnesota & Wisconsin
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