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## SP291-P-Guide to Warm-Season Vegetables

The University of Tennessee Agricultural Extension Service

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# Vegetables

## Guide to Warm-Season Garden Vegetables

*David W. Sams, Professor  
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Some of these vegetable varieties and planting dates are not the same as those grown by commercial growers. Commercial growers should be sure to consult the appropriate literature for commercial varieties and planting dates.

Warm-season vegetables require warm soil and air temperatures if they are to germinate, grow and mature properly. They will not tolerate any frost and may be severely damaged by prolonged temperatures as much as 15 degrees above freezing. They are deep-rooted and generally quite resistant to drought. However, irrigation may increase yields. They are frequently grown for their fruit or seed and thus do not require excessive amounts of nitrogen. Fruiting may, in fact, be delayed by excessive nitrogen fertilization.

Warm-season vegetables are generally planted after danger of frost in the spring and grown during the heat of summer. Some will survive and produce into the fall, but most have a relatively long growing season and must be planted no later than early July. Plant warm-season vegetables near the early end of the recommended

planting interval in West Tennessee. Plant later in Middle and East Tennessee. Gardeners at high elevations may need to plant near the very end of the recommended planting interval. Use the closer recommended row spacings only in compact gardens to be worked by hand. The recommended spacings between plants in rows should not be reduced.

Remember that estimated days to first harvest, length of the harvest season and yields all are subject to considerable variation. The exact figures will depend on the varieties grown, the cultural procedure used, the weather and many other factors. More detailed gardening information is available in the other factsheets in this series, in PB 901, "Growing Vegetables in the Home Gardens" and PB 1228, "Gardening for Nutrition." These may be obtained by Tennessee residents at no charge from local Extension offices.

The following table lists commonly grown warm-season vegetables, recommended varieties, spacings, planting dates and harvest information.



## Guide to Warm-season Garden Vegetables

Vegetable	Variety	Planting interval	Seed or plants per 100 foot row	Inches between rows	Inches between plants	Days to first harvest	Length of harvest season	Yields per 100-foot row
Beans, Bush Snap	Blue Lake, Top Crop, Derby, Roma II, Half runners, Provider, Tendergreen Improved	Apr.10 to June 20	1/4 lb. seed	24 to 36	3 to 4	52 to 60	2 weeks or more	80 to 120 lbs.
Beans, Pole	Kentucky Wonder, Blue Lake, McCaslan	Apr.10 to June 20	1/4 lb. seed	36 to 48	3 to 4	60 to 65	5 to 6 weeks	100 to 150 lbs.
Beans, Bush Lima	Fordhook 242, Henderson Bush, Dixie Butterpea	May or June	1/2 lb. seed	24 to 36	3 to 4	65 to 75	3 weeks	20 to 30 lbs. shelled
Beans, Pole Lima	King of the Garden, Sieva	May or June	1/2 lb. seed	36 to 48	3 to 4	80 to 90	4 weeks.	25 to 50 lbs.
Cantaloupe	Burpee Hybrid, Gold Star, Classic, Harper Hybrid, Pulsar, Athena, Ambrosia	May	1/4 oz. seed	72	24	80 to 90	3 weeks	100+ melons
Corn, Sweet	Silver Queen, (white), Golden Queen, Kandy Korn	Apr. 1 to June 1	1/4 lb.seed	36	8 to 12	80 to 95	7 to 10 days	90 to 120 ears
Corn, High Sugar	How Sweet It Is, Honey 'n' Pearl, Incredible	Apr.15 to June 1	1/4 lb.seed	36	8 to 12	80 to 95	10 to 15 days	90 to 120 ears
Cucumber, Pickling	Country Fair, Calypso, Carolina, National Pickling	May	1/4 oz. seed	72	12	50 to 55	3 to 6 weeks	115 to 250 lbs.
Cucumber, Slicing	Sweet slice, Burpless. Sweet success, Tasty Green	May or June	1/4 oz. seed	72	12	50 to 65	3 to 6 weeks	115 to 250 lbs.
Eggplant	Black Beauty, Ichiban, Dusky, Millionaire	May	50 plants	36	24	65 to 80	2 months or more	75 to 150 lbs.
Okra	Clemson Spineless, Lee, Cajun Delight	May 5 to May 20	1 ounce seed	36	6 to 12	50 to 60	7 to 9 weeks	50 to 100 lbs.
Peas, Field	Mississippi Silver, Pink Eye Purple Hull, Texas Creme 40, Whipoorwill, Zipper, Dixielee	May or June	1/4 lb. seed	36	4	65 to 80	3 to 5 weeks	30 to 40 lbs.
Pepper, Sweet	California Wonder, Gypsy, Bell Boy, Golden Summer, Big Bertha, Sweet Banana	May or June	60 plants	36	18 to 24	55 to 80	2 to 3 months	50 to 75 lbs.

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Vegetable	Variety	Planting interval	Seed or plants per 100 foot row	Inches between rows	Inches between plants	Days to first harvest	Length of harvest season	Yields per 100-foot row
Pepper, Hot	Jalapeno, Cayenne, Habanero, Hungarian Wax	May or June	60 plants	36	18 to 24	60 to 70	2 to 3 months	10 to 25 lbs.
Potato, Sweet	Centennial, Jewel, Puerto Rico, Beauregard	May	100 slips	36	12	110 to 120	5 months stored	75 to 125 lbs.
Pumpkins	Autumn Gold, Sugar or Pie, Howden's, Jack 'O' Lantern, Wizard, Spirit	May	1 oz. seed	120 to 144	48	100 to 120	4 months stored	40 to 50 pumpkins
Squash, Summer	Dixie, Early Summer, Crookneck, zucchini types, Gold Bar	May or June	1 oz. seed	48 to 60	12 to 24	40-50	6 weeks	100 to 150 lbs.
Squash, Winter	Cushaw, Pink Banana, butternut types, acorn types	May or June	1 oz. seed	72 to 96	24 to 36	90-110	4 months stored	50 to 200 lbs.
Tomatoes	Big Boy, Betterboy, Celebrity, Early Girl, Sweet Million, (cherry) Lemon Boy, Sweet Cluster, Enchantment	Apr. 10 to June 10	50 plants	48	24	70-80	8 weeks or more	200-300 pounds
Watermelon	Jubilee, Crimson Sweet, Charleston Gray, Allsweet, Sweet Favorite	May	1/4 oz. seed	120 to 144	48	80-90	3 weeks	20-25 melons

The following tips will be helpful in growing warm-season vegetables:

While warm-season vegetables generally perform better during warm weather than during cool weather, extreme heat can limit production. This is especially true of tomatoes, beans and peppers, which tend to drop their flowers when temperatures above 90 degrees are combined with high humidity. Large amounts of nitrogen will also cause flowers and small fruit to drop. Do not apply ammonium nitrate sidedressings to tomatoes, peppers or okra until after fruit begins to set.

Beans and corn are sensitive to cool soils. Seed tends to rot rather than germinate if soils are cool and wet. Okra, peppers and eggplant require even warmer soils (about 70 degrees) to germinate quickly. Soaking seed overnight may help, but do not soak seed more than 24 hours before planting.

Half-runner beans are highly susceptible to virus diseases. Control insects to reduce the severity of this problem. Kentucky Wonder pole beans have low quality but are still very popular with home gardeners. It is also important to control cucumber beetles on cucumbers and cantaloupe to reduce the incidence of bacterial wilt of these crops. Specific control recommendations are found in PB 595, "You Can Control Garden Insects."

Squash, cucumbers, cantaloupes and other vine crops require pollination by insects to bear fruit. Apply insecticides late in the day to reduce the effect on honey bees.

The Supersweet corns frequently must be isolated from other corns. This can be accomplished by spacing corn plantings 100 or more feet apart or by timing the plantings so they do not shed pollen at the same time. They are especially difficult to get up when the soil temperature is below 60 F.

Dig sweet potatoes before cool, fall rains. Cure them at 85 degrees and 90 percent relative humidity, and store them at 55F and 65 percent relative humidity.

Lime soils properly to reduce blossom-end-rot of tomatoes, peppers and watermelon. Mountain Supreme tomato is somewhat resistant to early blight.

The following Tennessee Agricultural Extension Service publications also contain information useful to home gardeners:

PB 595 You Can Control Garden Insects  
PB 819 Vegetable Transplant Production  
PB 901 Growing Vegetables in Home Gardens  
PB 902 Growing Small Fruits in Home Gardens  
PB 1155 Honey Bees and Pesticides  
PB 1215 Disease Control in the Home Vegetable Garden  
PB 1228 Gardening for Nutrition  
PB 1391 Organic Vegetable Gardening  
SP 277-K Disease Resistance in Recommended Vegetable Varieties

SP 291-A Growing Vegetable Transplants for Home Gardens  
SP 291-B Growing Vegetables from Seed  
SP 291-C Soil Preparation for Vegetable Gardens  
SP 291-D Care of the Vegetable Garden  
SP 291-E Growing Sweetcorn in Home Gardens  
SP 291-G Fall Vegetable Gardens  
SP 291-I Weed Control in Home Gardens  
SP 291-L Fresh Vegetable Storage for the Homeowner  
SP 291-N Raised Bed Gardening  
SP 291-O Guide to Spring-Planted, Cool-Season Garden Vegetables  
SP 291-Q Rhubarb in Home Gardens  
SP 291-R Growing Asparagus in Home Gardens

#### **Precautionary Statement**

To protect people and the environment, pesticides should be used safely. This is everyone's responsibility, especially the user. Read and follow label directions carefully before you buy, mix, apply, store, or dispose of a pesticide. According to laws regulating pesticides, they must be used only as directed by the label. Persons who do not obey the law will be subject to penalties.

#### **Disclaimer Statement**

Pesticides recommended in this publication were registered for the prescribed uses when printed. Pesticide registrations are continuously reviewed. Should registration of a recommended pesticide be canceled, it would no longer be recommended by the University of Tennessee. Use of trade or brand names in this publication is for clarity and information; it does not imply approval of the product to the exclusion of others which may be of similar, suitable composition, nor does it guarantee or warrant the standard of the product.

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Charles L. Norman, Dean