

Home Gardening Series

Pumpkins

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Vegetables

Environment

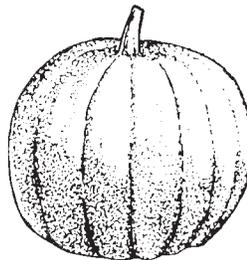
Light – sunny
Soil – well-drained, sandy
Fertility – medium
pH – 5.8 to 7.2
Temperature – warm
Moisture – average

Culture

Planting – seed, early June
Spacing – 4 feet x 8 feet
Hardiness – very tender
Fertilizer – medium to heavy

Pumpkins – *Cucurbita pepo*

Pumpkins are gourd fruits belonging to the genus *Cucurbita*. There has been considerable speculation as to whether the members of this genus are natives of America or Africa. Present evidence indicates they are definitely of American origin. Pumpkins have never been found in a wild state and have been important in primitive agriculture for centuries. They were possibly grown in Peru as early as 2000 B.C. and were definitely cultivated by Native Americans at this time.



Pumpkins are warm-season vegetables that can be grown throughout Arkansas. In addition to being used as jack-o-lanterns at Halloween, pumpkins are also

common ornamental and culinary elements. Also, the seed of the naked-seeded varieties do not have seed coats and can be roasted in the oven or sautéed for snacks.

Cultural Practices

Planting Time

Pumpkin is a very tender vegetable. The seeds will not germinate in cool soil, and seedlings are injured by frost. Do not plant until all danger of frost is past. Plant pumpkins for Halloween in early June. If pumpkins are planted too early, they may rot before Halloween.

Spacing and Depth of Planting

Vining pumpkins require a minimum of 50 to 100 square feet per hill. Plant seed 1 inch deep (4 to 5 seeds per hill). Allow 5 to 6 feet between hills. When young plants are well established, thin each hill to the best two plants per hill. Allow 4 feet between hills and 8 feet between rows. Plant bush varieties 1 inch deep (one to two seeds per foot of row) and thin to a single plant every 3 feet. Allow 7 to 12 feet between rows.

Care

Keep pumpkin plants free of weeds by hoeing and shallow cultivation. Irrigate if extended dry periods occur in early summer.

Bees, which are necessary for pollination of squash and pumpkins, are killed by insecticides. If insecticides are used, apply in late afternoon or early evening when bees are not visiting the blossoms.

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Cultivars

Crop	Variety	Days to Maturity	Seed/ 100 Ft of Row	Disease Resistance or Tolerance	Sources (see "Sources" paragraph below)	Remarks
Pumpkins						
Miniature (1 lb or less)	Jack-Be-Little	95	1 oz		2, 5, 6, 8, 12, 16, 23, 25, 27, 35	True miniature pumpkin, 8-10 small fruit per plant.
Small (6 to 10 lbs)	Small Sugar	100	1 oz		3, 5, 6, 8, 9, 23, 25, 31	6- to 10-pound orange fruit; excellent quality.
	Baby Bear	100	1 oz	Fusarium, Gummy stem blight	2, 5, 6, 25, 31	Smooth, orange skin, green stem, averages 5 x 4 inches; 9 fruits per plant. Disease resistance. AAS.
Intermediate (8 to 15 lbs)	Spirit	96	1 oz		5, 6, 27, 32, 35	Hybrid, semi-bush, compact plant, 12-inch fruit. AAS.
	Jack-O-Lantern	110	1 oz		5, 6, 12, 23, 32, 35	Round to oblong, orange fruit, medium thick flesh.
	Jack of All Trades	95	1 oz			Very uniform, bright orange with shallow rib. Long stem.
	Autumn Gold	90	1 oz		2, 6, 17, 27	7- to 10-pound fruit, turns golden early then matures to orange. AAS.
	Connecticut Field	112	1 oz		5, 6, 12, 16, 17, 31, 32, 35	Widely used for commercially canned pumpkin.
	Lumina	90	1 oz		2, 5, 6, 9, 17, 23, 25, 32	Smooth, white pumpkin, 10-12 pounds. Perfect for painting or carving. Stores well.
Halloween	Big Max Big Tom Big Moon Cinderella Connecticut Field Funny Face Howden Fields Jack-O-Lantern		1 oz		2, 3, 5, 6 12, 32, 35 2, 6 27 2, 23, 35 6 2, 3, 9 23	Suitable orange color, size and shape for jack-o-lanterns.

Abbreviation: **AAS**: All American Selection

Sources

For a list of sources referred to by number, request FSA6106, *Seed Sources: Vegetable and Herb*, for current address, telephone and web site.

Harvesting

Pumpkins can be harvested whenever they are a deep, solid color (most varieties are orange) and the rind is hard. Harvest in late September and October before frost. Cut pumpkins from the vines carefully, leaving 4 to 5 inches of stem attached. Pumpkins without stems usually do not keep well.

Avoid cuts and bruises when handling. Fruit that is not fully mature or that has been injured or subjected to heavy frost will not keep. Store in a dry building on wood or straw where the temperature is above 55 degrees F.

Common Problems

Powdery mildew causes a dusty white mold growth on the upper surface of the leaves. This growth can kill the leaves prematurely. Apply a suggested fungicide if powdery mildew appears before the fruit is fully grown.

Cucumber beetles attack seedlings, vines and both immature and mature fruit. They can be controlled with a suggested insecticide. Be alert for an infestation of cucumber beetles in late August because these beetles can damage the mature fruits.

Crossings Between Pumpkins and Squash

Pumpkins and squash are members of the vine crop called "cucurbits." The name is derived from their botanical classification as cucurbits. The varieties within a botanical species (whether they are referred to as pumpkins or squash) will cross-pollinate. For example, zucchini will cross with Connecticut field pumpkins or acorn squash (a winter squash) because they are all members of the same botanical species (*C. pepo*). However, cross-pollination will not affect the taste, shape and color of the fruits unless the seeds are saved and grown the following year.

Frequently Asked Questions

- Q. The first flowers that appeared on my pumpkin plant did not form fruits. Why not?**
- A. This condition is natural for cucurbits (cucumber, gourd, muskmelon, pumpkin, squash, watermelon, etc.). The first flowers are usually male. They furnish pollen for bees to pollinate the female flowers and then drop off the plant. The male flowers may redominate under certain conditions, especially early in the season. The small fruits are visible at the base of the female flowers. There is no swelling at the base of the male flower stems.
- Q. When I raise pumpkin in the fall, the foliage becomes covered with a white, powdery, dusty material. What can I do to prevent this?**
- A. This is powdery mildew caused by an airborne fungus which grows on the outside layer of cells of the leaf. It can be controlled with sprays of benomyl if applied early and on a regular schedule. No varieties are resistant to this disease, and if the disease is not controlled, it can kill the plant.
- Q. How can I grow very large pumpkins?**
- A. Use one of the jumbo varieties such as Dill's Atlantic Giant. Plant in mid-May and allow 150 square feet of area per hill. Thin to the best two plants. High fertility, proper insect control and shallow cultivation are essential. Remove the first two or three female flowers after the plants start to bloom so the plants will grow larger before setting fruit. Allow a single fruit to develop on each plant, then pick off all the female flowers for the next couple of weeks. During the rest of the summer, irrigate, fertilize and control pests on the pumpkin plant. Many large pumpkin growers place the fruit on a raised support that keeps the bottom of the pumpkin dry and free of rot.
- Q. My grandmother made pies with a green-striped, long-necked pumpkin. Is this variety still available?**
- A. Yes. The variety is green-striped cushaw. Because of its coarse texture, some cooks prefer it for custards and pies.
- Q. What causes my pumpkin to produce very few fruit?**
- A. Poor fruit set on pumpkin is commonly caused by the plants being too thick. Like other members of the cucurbit family, pumpkins require bees for pollination. They produce male and female flowers, and pollinating insects must transfer the pollen from the male to the female flowers for fruit set to occur. Also, wet, cloudy conditions which slow insect activity will greatly reduce fruit set. Excess nitrogen applications may prevent development of fruit.
- Q. Will pumpkins cross with squash, cucumbers or watermelons resulting in off-type fruit?**
- A. Varieties of the true pumpkin cross readily with each other, but this crossing will not be apparent unless seed are saved from this year's fruit for planting next year. Pumpkins will not cross with varieties of true squash.

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