UNIVERSITY OF ARKANSAS
DIVISION OF AGRICULTURE
Cooperative Extension Service

Agriculture and Natural Resources

Home Gardening Series

Okra

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Environment

Light – sunny
Soil – well-drained
Fertility – medium
pH – 6.0 to 7.5
Temperature – warm
Moisture – average

Culture

Planting – seeds in warm soil
Spacing – 12 x 36-48 inches
Hardiness – tender annual
Fertilizer – medium

Okra – *Hibiscus esculentus*

Okra is a tall-growing, warm-season annual that is well adapted to a wide range of soil types. Its origin is thought to be in the upper Nile region of Africa. Okra was grown in Egypt in the 12th century A.D. It is now grown throughout tropical Asia, Africa, the Caribbean and the southern United States. Okra is referred to as "gumbo" in certain areas.

The immature pods can be used as a fried or boiled vegetable in soups and stews. Okra is processed as a frozen, pickled or canned product.

The hibiscus-like flowers and upright plants (4 to 6 feet in height) have ornamental value for backyard gardens. A close examination of the flowers reveals a similarity to cotton, a close relative.

Cultural Practices

Planting Time

In the spring, plant okra seeds after all danger of frost, when the soil has warmed to 62 degrees F and about 10 days after tomatoes are transplanted. This is April 10-15 in southern Arkansas, April 15-21 in central Arkansas and April 21-May 5 in northern Arkansas and at the higher elevations. Short day length, less than 11 hours, promotes flowering in most cultivars. Okra planted too late in the spring may remain vegetative until late summer or early fall. The cultivar Clemson Spineless is not as sensitive to day length.

Spacing and Depth of Planting

Okra has a thick seed coat and does not germinate easily. Soak seeds in water at room temperature overnight to improve germination. Discard nonviable seeds that float after soaking. Sow seeds 1 inch deep in rows that are 3 to 4 feet apart. When the seedlings are 3 inches high, thin to 10 to 18 inches apart.

Care

Okra grows well in any good garden soil. Prior to planting, apply 3 to 4 pounds per 100 feet of row of a

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Cultivars

Crop	Variety	Days to Maturity	Seed/ 100 Ft of Row	Sources (see "Sources" paragraph below)	Remarks
Okra	Clemson Spineless	55	2 oz	2, 5, 6, 12, 21, 22, 23, 27, 31, 34, 35, 36	Bright, green pods, high yields, good quality.
	Lee[AR]	58	2 oz	27, 35, 36	Developed by Arkansas Agricultural Experiment Station.
	Emerald	55	2 oz	35, 36	Dark green color, round pods, larger pods remain tender.
	Jade[AR]	56	2 oz	31	Early, tender, dark green pods, few branches.
	Cajun Delight	55	2 oz	6, 9, 12, 17, 21, 25, 28, 32, 33	Vigorous plants give huge yields; produce earlier and longer; less fibrous.
	Baby Bubba Hybrid	53	2 oz	5	Dwarf plant, yields well, good for containers.
	Annie Oakley II Hybrid	48	2 oz	6, 12, 32, 33	Spineless dwarf plants; tender to 4 1/2 inches.

complete fertilizer such as 10-20-10. Okra can become excessively vegetative if nitrogen levels are too high. Excess nitrogen fertilization results in poor yields and excessive vegetative growth. During a long growing season, apply additional fertilizer every four to six weeks. Use 1 pound of ammonium nitrate or urea per 100 feet of row. Shallow cultivation near the plant keeps down weeds.

The flower on the okra plant blooms for only one day. Okra is generally self-pollinated, but it will be cross-pollinated by insects, such as bumblebees, when several varieties are grown in close proximity and blossom at the same time. For early harvests of okra, use black plastic mulch to warm the soil and plant transplants through the mulch when the soil is 60 degrees or warmer.

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

Cut the pods while they are tender and free of fiber, 2 to 4 inches long for most varieties. Okra pods are ready for harvest four to seven days after the flower opens. Harvest pods every other day. Remove mature pods and discard as they reduce the plant's production ability. The large pods rapidly become tough and woody. When the stem is too difficult to cut, the pod is too old to use. The plant bears until frost, and four or five plants produce enough okra for most families.

Seed can be saved from open-pollinated varieties. Okra is self-pollinated, and flowers can be isolated by placing a paper bag over them for 24 hours while they are open. In early fall, allow several pods to mature and dry. The seed can be dried and stored for up to five years.

Common Problems

Insects

Aphids may attack young leaves and developing flowers and fruit and are often controlled by natural predators such as ladybugs. Sucking insects, such as stinkbugs and leaf-footed bugs, attack the pods and cause them to become misshaped. Use suggested insecticides to control these insects. Okra pods can be invaded by corn earworms, but this is not a major problem unless you plan to save seed.

Diseases

Damping off of young seedlings is a problem early in the spring. It is caused by planting in soils that are too cold and using seeds that are not treated with a fungicide.

Southern blight is a soilborne fungal disease that remains in the garden from one year to the next. It attacks the base of the plant and destroys the tissue. Remove any plants that you suspect have this disease. Crop rotation is the most effective means of control.

The fungal vascular wilts caused by verticillium and fusarium are present in some soils. The best method of control for this disease is crop rotation and disease-free seed.

Cultural

Remove old pods; this encourages plants to continue to produce.

Harvesting and Storage

days to maturity – 48 to 60 days

harvest – harvest pods every second day. Pods bruise easily, so care should be taken in harvesting.

approximate yields – 35 pounds per 50 row feet

amount to raise per person – 9 pounds

storage – 45 to 50 degrees F for 7 to 10 days. If refrigerated, enclose pods in plastic bag; keep dry or pods will darken and become slimy.

preservation – freeze

Frequently Asked Questions

Q. How often should okra be harvested and how can you tell when it is ready?

A. Okra requires frequent harvesting. Harvest the pods before they become tough to get high-quality produce. Okra matures rapidly, especially in hot weather, and about four days are required from flowering to harvest maturity. Okra should be harvested every other day. Pod size varies with variety, but the length will generally be 4 to 6 inches. Test larger pods by cutting through them with a sharp knife. If it is difficult to cut through them, they are tough and unsuitable for serving. Remove old pods from the plant or it will stop producing.

Q. What causes yellowing, wilting and death of plants in midsummer?

A. These conditions are caused by either verticillium or fusarium wilt. Okra varieties are not resistant to verticillium and fusarium wilt. Rotate crops to prevent build-up of these diseases in your garden.

Q. Can seed from this year's okra crop be saved for next planting?

A. Yes. Okra is a self-pollinated crop, and seed can be saved from one year's garden for the next. To do so, allow some of the pods to remain on the plant, and harvest them when they become fully mature and almost dry at the end of the season. Subsequent production is greatly curtailed when okra pods are allowed to remain on the plant. Okra seed remain viable for up to five years.

Q. What causes my garden okra to fail to grow properly when planted in the early spring?

A. Maybe it was planted too early. Plant okra three to four weeks after the last spring frost to produce an abundant supply of fresh garden okra. If planted before soil temperatures warm up and before night temperatures average above 50 degree F, okra fails to grow properly.

Q. Can okra plants be pruned during late summer or early fall for additional production until the first killing frost?

A. Yes, but the simple solution is a midsummer planting. When pruned, the plants develop a bush rather than a single stalk which usually makes harvesting difficult.

Q. Is there anything special about the red-podded varieties of okra?

A. No. This selection produces red-colored okra. When cooked, the red disappears and the pods take on the normal green appearance.

Q. Small drops of liquid are oozing from various areas on the leaves and stems of my okra plants. What causes this?

A. The liquid is natural secretions from the glands on the leaves and stems of the okra plant. The process is natural and causes no damage.

Q. I have ants all over my okra. Do they hurt the plants?

A. Generally, ants do not hurt okra plants. Ants visit okra plants to get honeydew produced by sharpshooters, aphids or other sucking insects. Get rid of the sucking insects and the ants will leave. Fire ants have been known to damage okra flowers as they seek out the flower nectar.

Q. What causes okra pods to be crooked and bent rather than straight?

A. This could be caused by certain sucking insects, such as stinkbugs and leaf-footed bugs, feeding of the pods. The insects inject chemicals into the pods causing the pods to stop or slow down growth in that area. The other side, which is growing normally, results in a curved or bent pod. The pods can still be eaten. No control is necessary unless the bugs are still feeding on the plants. Use Sevin for control and follow directions on the label.

Q. My okra did not grow properly last year. When I removed it at the end of the season, the roots were damaged by galls and swellings.

A. The damage was caused by root-knot nematodes. Rotate crops to control this problem, and use soil solarization for garden site.

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