



Okra

COMMERCIAL VEGETABLE PRODUCTION

Reviewed by Tim Coolong, Extension Horticulturist

Prepared by Paul Colditz, Darbie Granberry and Charles Vavrina, Extension Horticulturists-Vegetable Crops

Okra is grown in every county in Georgia. This popular vegetable can be found in both home and commercial gardens. A large acreage is planted under contract for the soup and frozen food industry.

Okra can be a profitable crop when recommended production practices are followed. It can return income over a 10- to 12-week period after harvest starts.

VARIETIES

New okra varieties are not introduced as often as are those of some vegetables. However, plant breeders and commercial companies continue to improve existing varieties and some hybrids have been released. Varieties recommended for commercial production are listed in the table below.

Since some processors prefer a particular variety, you're urged to discuss this with the processor before buying seed. Some processors have a source of seed available for their growers.

Buyers for the fresh market generally prefer star-shaped pods; soup manufacturers prefer a round pod of the Emerald type; the frozen food industry has accepted both types in the past.

FIELD SELECTION

Soil: A well-drained, fertile soil is best for okra production. Select a soil with good water holding

capacity. Do not plant on very light, sandy soils. Soils that are poorly drained or known to have hardpans should not be planted to okra.

Crop Rotation: Because okra is very susceptible to damage by nematodes, follow a crop rotation, using crops such as grasses and small grains, which prevent a buildup of nematode populations. Okra should not follow vine crops such as squash and sweet potatoes. These crops tend to increase nematode population.

LAND PREPARATION

Seedbed: Early land preparation is an important step in growing a good crop. Turning the soil in the fall or early spring will give crop residues time to decompose before okra is planted. Early land preparation also allows for many weed seed to germinate. These seedlings should be killed as you disk the soil before planting.

Fumigation: Because okra is very susceptible to nematodes, it is important to fumigate the soil if nematodes are present.

You can determine if nematodes are present by sampling the soil.

Your county Extension agent can advise you on how to take a nematode soil sample. He or she also can advise you on soil fumigation.

RECOMMENDED VARIETIES

Variety	Pod Shape	Days to Maturity	Main Use	Other Comments
Emerald	Round	57	Canning	Semi-cut leaf
Louisiana Green Velvet	Round	58	Freezing	Retains seed when sliced
Clemson Spineless #80	Star	60	Fresh Market	Heavy yields; also spineless
Dwarf Green Long Pod	Star	52	Fresh Market	Plant has several side branches
Hastings Improved Perkins	Star	50	Fresh Market	Deep cut leaf
Annie Oakley (Hybrid)	Star	57	Home-Local	Try on small scale to determine adaptability
UGA Red	Star	58	Home Garden	Red pod - ornamental and home use

FERTILIZER

Okra grows best on soils that have a pH of 5.8 to 6.5. A soil test will indicate if lime is required and will specify the amount of fertilizer to apply. If lime is recommended, use *dolomitic* lime. Apply it three or four months before the crop is seeded.

Research indicates that okra should respond to additional phosphate when the soil test indicates *medium* to *low* phosphate. If your soil test indicates low phosphate, broadcast 400 pounds per acre of 20 percent superphosphate and disk it in. If the soil test indicates medium phosphate, apply 200 pounds per acre of 20 percent superphosphate and disk it in.

If a soil test is not available, general recommendations are to apply 600 to 800 pounds per acre of a complete fertilizer such as 6-12-12 or 5-10-15. This can be mixed under the row or applied in a band to the side.

The okra plant has a sensitive balance between vegetative (foliage production) and reproduction (pod production). The use of additional nitrogen should be avoided on vigorous plantings until fruiting begins to check plant growth.

Two or more sidedressings with a high analysis nitrogen material may be needed, however, depending on rainfall. It is important to supply additional nitrogen late in the season at the time the "forms" or "blooms" are concentrated in the top of the plant. Put down 33 pounds of additional nitrogen per acre at each application.

PLANTING

Seed the okra after the soil has warmed enough to allow good germination. Space rows 28 to 38 inches apart. These spacings will require 12 to 15 pounds of seed per acre. Plant 1½ to 2 inches deep, 4 to 6 seed per foot. Thin to 8 to 12 inches between plants.

Corn planters, such as the Cole planter, can be used for okra if the seed plate and cog are changed to plant this size seed. Planet Jr. type of seed planter is also suitable.

PLANT PEST CONTROL

Weeds: Weeds can be controlled by cultivation or by use of herbicides. Early weeds can be controlled by preplant herbicide applications. Later in the season, shallow cultivations can be used to control weeds. Refer to Extension Circular 695, *Weed Control in Vegetables*.

Insects: At times it will be necessary to control insects that attack okra. Check your crop on a regular schedule, especially early in the season. This is the time that aphids usually appear. Later on, the plants and pods may be attacked by green stink bugs, cabbage loopers, corn earworms, European corn borers, and the leaf-footed plant bug. Consult with

your county Extension agent and the *Georgia Pest Control Handbook* for control measures.

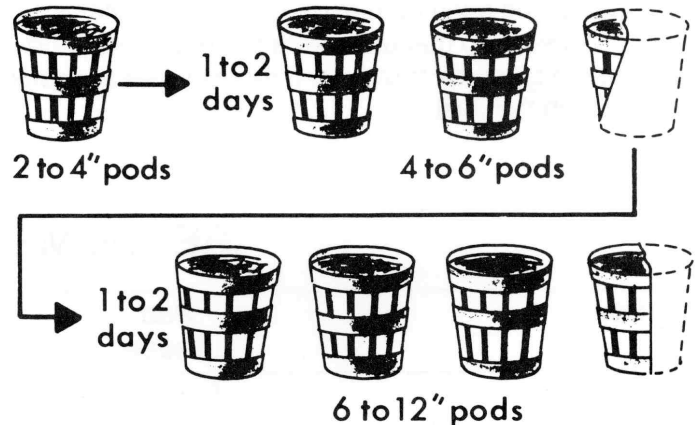
Diseases: Nematodes can cause serious losses in okra. Root-knot nematodes can be controlled by the use of approved nematicides. Nematicides are very essential if soil is infested with nematodes. Refer to the *Georgia Pest Control Handbook* and consult with your county Extension agent for approved control measures.

The incidence of Fusarium wilt is much greater when root-knot nematodes are present. Nematode control is a major practice in reducing Fusarium wilt presence.

HARVESTING

The most important step in any okra operation is harvesting the pods correctly and at the proper time. Harvesting methods vary according to the market type.

Harvesting for Processing: Most varieties grown for processing produce pods on a brittle stem. These pods can be broken or snapped in a manner that leaves the stem on the plant and not on the pod. Okra grown for processing should be allowed to get as long as possible without becoming fibrous or hard. As long as the pod tip will snap off evenly the pod is usually still tender.



Processing: Two- to 4-inch pods left to mature one to two days longer will yield about 2¹/₃ times more weight. If left to mature three to four days longer, they will yield about 3½ times more weight.

Usually three harvests a week are required with process type of okra. Train your picking crews to grade okra as it is being harvested, discarding tough and damaged pods. Do not gather pods under 4 inches long. If left to reach maximum length, these pods will return a much greater weight per acre.

Harvesting for Fresh Market: Greater care is necessary in harvesting okra for the fresh market. Grading standards are more exact and the pods must usually be cut with a knife. Fresh market okra is usually graded into these sizes:

- *Fancy* - Pods up to 3½ inches long.
- *Choice* - Pods 3½ to 4½ inches long.
- *Jumbo* - Pods over 4½ inches but still tender.

Be sure your picking crews are careful to neatly trim the stem end; this can be done as the pod is cut from the plant. To keep pods small enough to grade as Fancy or Choice it will be necessary to harvest every day during periods of rapid growth.

Caution: Any mature pods left on the plant will reduce future yield. It is very important that all mature pods be removed from the plants as soon as possible. The practice of cuffing off (cropping) leaves during harvest does not influence future yields as long as leaves are not cut above where pods have not developed.

Fresh Market: Pods develop extremely fast. From bloom to Jumbo size takes only about eight days. To get a maximum of Fancy and Choice pods (groups 3 & 4), you must harvest every day.

