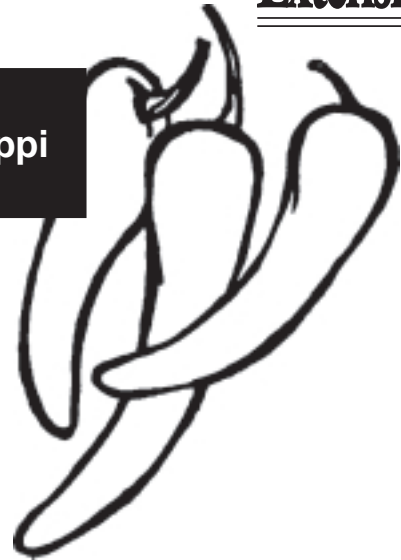


## COMMERCIAL PRODUCTION OF

# *Hot Peppers* in Mississippi



Many types of hot peppers are grown in Mississippi in gardens. Types vary in size, shape, and amount of capsaicin. This "heat" generating compound is found on the cross wall of the fruit.

### Site Selection

Choose a fertile, well-drained site that is not heavily infested with weeds, especially cocklebur and coffeeweed. Avoid fields where herbicides (such as Karmex, Cotoran, Scepter, or Lorox) were applied the last growing season. Never plant peppers on the same soil where peppers or tomatoes were planted the previous year. Plant a cover crop in fall and disk into the soil at least 4 weeks before transplanting the peppers.

### Varieties

When hot peppers are grown under contract, the processor will specify the variety.

**Long Red Cayenne**—The mature fruit of red cayenne is 6 to 10 inches long and about 3/4 inch in diameter. It is tapered and generally curved. The fruit is dark green and turns red at maturity. Cayenne requires about 100 days to grow to maturity and 120 days to red ripe.

**Lafayette Sport**—This late-maturing variety is 2 1/2 to 3 inches long and about 1/2 inch in diameter. It is dark green and blunt.

**Jalepeño**—Mitla has proven to be a high yielding and consistent producer of good quality peppers.

### Planting Dates

Set transplants in the field around April 15. If you are not growing your own transplants, know your supplier. Buy only certified transplants grown from clean, treated seed on clean soil. Most diseases attacking pepper can be brought into the fields on transplants.

### Starter

Mix 2 to 3 pounds of 10-52-17, or similar formulation, and 1.5 to 2.5 pounds Terraclor (75 percent WP) to control Southern blight, for each 50 gallons of water. Check compatibility of chemicals. Apply 1/2 pint of this solution per plant (325 to 375 gallons per acre) at time of transplanting.

### Transplanting

Set transplants by hand or use a mechanical transplanter. Do not use tobacco of any kind while handling plants. Everyone should wash hands in soap and water before handling transplants; this helps reduce the chances of introducing a virus into the field. Discard plants smaller than 4 inches. Take enough transplants from their cool location to plant in 15 to 20 minutes. Use a two-person team with a hand setter or a round, pointed, long-handled shovel. Form a hole, insert plants so that roots are 3 to 4 inches deep. Firm soil around roots, leaving a slight depression around the stem's base. Water in with 1/2 pint starter solution.

### Plant Spacing

**Method 1.** Space 24 inches to 32 inches within the row and 3 1/2 feet between rows to give a plant population of 5,000 to 6,000 plants per acre.

**Method 2.** Space 2 rows 12 to 18 inches apart on a 5-foot bed with in-the-row spacing of 12 to 18 inches for 11,600 to 17,400 plants per acre.

### Field Layout

For a hand-harvested operation, roadways across rows every 150 feet can save time in harvesting and

loading. Pickers can start in the middle of each 150-foot length and work toward roadways.

### Fertilization

Peppers thrive best on a soil with a pH of 5.5 to 6.5. Have your soil tested, and apply any lime required 3 months before transplanting.

A soil of medium fertility in the growing season requires 160 pounds of nitrogen and 150 pounds each of phosphate and potash. Apply all the phosphate and potash before planting and 40 pounds of the nitrogen. Add the remaining nitrogen as three sidedressings. Apply the first sidedressing when young fruit is about the size of a quarter. Apply the second sidedressing after the first harvest. Apply the third sidedressing in early fall (first of September).

### Irrigation

Peppers require from 1 to 2 inches of water per week, depending on weather conditions. A dry period during flowering causes flowers to drop and to reduce and delay fruit set. Blossom-end rot, a disorder of the pods, can be induced by a period of drought followed by rain. Fruits with blossom-end rot are unsalable.

### Weed Control

An initial flush of weed seedlings can be controlled before transplanting by using Gramoxone or Roundup. Trifluralin (Treflan) or Clomazole (Command) can be used to control grass seedlings, pigweed, and purslane. Apply and incorporate 1.0 to 2.0 pints of formulation (4 pounds active per gallon) per acre before transplanting.

DCPA (Dacthal W-75) can be used at transplanting or up to 6 weeks after transplanting. Use 5.3 to 7.7 pounds of 75 percent formulation per acre. DCPA can be sprayed over the top of plants. Use at least 50 gallons of water per acre. Agitate tank during spraying to prevent settling out. DCPA will not control weeds already present. Poast can be used to control escaped grasses. Note the 20-days-to-harvest restriction.

Weeds that are not controlled by a herbicide should be removed by cultivation. Weeds in the row will have to be removed by hoeing. Keep cultivation shallow to avoid root pruning.

The information given here is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended of other products that may also be suitable.

By **Dr. David Nagel**, Extension Vegetable Specialist

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### Information Sheet 1509

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### Disease Control

The most common diseases of hot peppers are Southern blight, bacteria leaf spot, mosaic virus, Cercospora leaf spot, anthracnose, and ripe rot.

To reduce the incidence of Southern blight, practice deep plowing and use Terraclor in transplant water. To control bacterial leafspot, treat seeds with calcium hypochlorite.

Mosaic virus can be introduced by tobacco. Do not let smokers handle transplants without washing hands thoroughly. Refer to Extension Publication 801 for more information on diseases and their controls.

### Insect Control

Insects that cause problems in peppers are aphids, flea beetles, cutworms, hornworms, corn earworms, and pepper weevils.

Control aphids with malathion or dimethoate. Control flea beetles with carbaryl (Sevin) or endosulfan (Thiodan). Control worms with Bt's (Attack, Dipel) and carbaryl (Sevin). Refer to Extension Publication 554 for information on rates and harvest limitations.

### Harvesting

The buyer specifies the correct stage to harvest. Cayenne peppers are harvested red ripe for processing. Lafayette Sport may be harvested mature green or red ripe. When harvesting mature green, make sure the peppers are fairly firm before picking. Pods that are too immature will be soft to the touch and leave pressure marks. Peppers are usually ready for picking 100 to 120 days after transplanting.

### Handling

Pick but throw away bad peppers. Get harvested peppers to the shade as soon as possible. Hold in a cool place. The hotter the storage conditions, the more weight is lost. Do not let water condense on the surface of the pepper pods. Pack in mesh bags to take to the receiving station.

### Harvesting

**Harvesting Period**—August, September, October, and perhaps to mid-November.

**Harvest Labor—Estimated Requirement**

One person per 2 acres (based on uniform 10-week harvest, 40 pounds per hour, 40 hours per week, 8,000-pound yield).



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