Peppers are a popular crop in the home garden, especially in Louisiana. Peppers are low in calories and high in vitamin C and may be eaten green or red ripe.

The pepper plant is related to the tomato, Irish potato and eggplant. It probably originated in tropical America. The black pepper spice is the seed of a completely different type and family of plants.

**Types and Varieties**

Peppers may be classified as sweet, mild or hot. This hotness is related to the amount of capsaicin, a chemical present mainly in the seed but also in the fruit walls. Removal of the seed and fruit wall directly beneath the seed will make a hot pepper milder. Pepper groups may also be based on other fruit characteristics and usage. The following is such a grouping:

**Bell Group** — The major type of peppers grown. Fruits are sweet and generally blocky with three or four lobes. Bell peppers are usually harvested in the green-mature stage, but some are bred for their color at full maturity. The fruit has a sweeter flavor when green fruit are allowed to turn yellow or red at full maturity. Success is more difficult when growing colored bells in Louisiana.

These nonhybrid (open-pollinated) varieties are recommended for Louisiana: Jupiter, Capistrano and Purple Beauty.

The best bell hybrids for Louisiana are Camelot X3R, Excursion II, Heritage, King Arthur, Plato, Paladin, Revolution, Aristotle X34, Summer Gold, Valencia, Enterprise, Lafayette, Declaration, Purple Bell, Tequila and Purple Beauty. AAS-winning hybrid bells are Super Heavy Weight, Blushing Beauty, Bell Boy and the piquant Mexibell.

**Other types (chilies)** — This group has a large assortment of sizes, shapes and colors. The hotness varies from sweet to very hot. Some are for sauces or spices and some for frying, pickling or cooking. Varieties that produce well in the southeast include the following:

- **Jalapeno** — Tula, Jalapeno M, El Rey, Midla, Grande, Ixtapa and Tormenta.
- **Ancho** — Tiburon, Ancho 101.
- **Cayenne** — Mesilla, Large Thick, Long Slim, Super Cayenne (N).
- **Other** — Habanero, Tabasco and the AAS winners Mariachi, Chilly Chili (ornamental), Super Chili and Holy Molé (pasilla).

Please note that some very hot groups are very dangerous.

Use extreme caution to keep the burning irritant in any hot peppers away from the eyes or delicate tissues.

Ornamental peppers generally have very small fruits and include both hot and mild varieties. Ripe fruit of any of the types can be dried and ground to make hot red pepper, chili powder or mild paprika.
Culture

Peppers are grown on most soils in Louisiana, but they prefer a well-drained soil rich in organic matter. Choose a location with full sun. Too much shade causes the plant to become thin and leggy and produce low yields.

Strongly acid soils may cause peppers to show stunted growth with chlorotic (yellow-spotted) and puckered leaves. These soils should be limed in the fall or winter to a pH of 6. A soil test is the only sure way to correct this soil problem. Your county agent can help you with this. In working the soil, till in or band about 4 to 5 pounds of a complete fertilizer such as 8-24-24 per 100 feet of row. Make sure the fertilizer is 6 to 8 inches deep if banded.

Consider Plastic Mulch — The soil-warming effect of black plastic mulch greatly increases the growth of peppers in early spring. This results in earlier and larger yields. The mulch also conserves moisture and fertilizer and helps control weeds and some disease. In many areas of the state, the plastic mulch is painted with silver or bright aluminum paint after it has been laid and before transplanting. The reflected light from the painted surface helps to repel aphids — small insects that feed on peppers and transmit virus diseases. The reflected light also seems to stimulate plant growth. The larger the area treated with the painted surface, the more effective it is.

Transplant in Spring or Mid-summer —
Peppers are commonly transplanted after temperatures have risen and danger of frost is past. Peppers are sensitive to low temperatures and may be stunted if transplanted too early. Generally, in the southern part of the state, peppers can be transplanted beginning in late March. In north Louisiana, begin transplanting in mid-April. Bell peppers may be transplanted through early May with acceptable yields expected. Plantings made later than this will set few, small, poorly formed fruits because of the heat. This explains why bell pepper production continues June through early July and then stops. If these plants are maintained by spraying, watering and fertilizing, fruit will begin to set again in late summer after the temperatures become more favorable. For a fall crop, transplant bell peppers in late June through early July. Most other types of peppers will continue to set fruit through the summer and on into early fall if properly fertilized and watered.

Bell peppers may be planted 15 to 18 inches apart in the row with rows spaced at least 36 inches apart. If plants are to be kept through fall, thin out every other plant in mid-summer to allow room for growth. Varieties that produce larger plants, such as Tabasco or Cayenne, should be spaced about 3 feet apart and possibly wider. If space is limited, it is possible to plant two rows of bell peppers on a bed. Space the plants 18 inches apart within each drill, and space the drills 10 to 12 inches apart. This will help to increase the total yield of a given area.

Apply a cup of diluted starter solution to each plant
at transplanting. Even if starter fertilizer is not used, the plants should be watered in. Set transplants at the same depth they were grown in their containers or plant beds.

**Encourage Plant Growth** -- Fruit set begins within a few weeks after transplanting, and harvesting begins about 70 days after transplanting. If a pepper plant begins setting pepper when it’s too small (usually less than one foot), remove the small peppers and sidedress the plants with fertilizer to encourage more plant growth before further fruit set.

Sidedress after first set of fruit with either 2 pounds calcium nitrate, 3/4 pound of ammonium nitrate, 1 pound of ammonium sulfate or 3 pounds of 8-8-8 per 100 feet of row. One pound of fertilizer is about one pint. On light sandy soils, it may be necessary to sidedress with a complete fertilizer such as 8-8-8. Otherwise, just use nitrogen. Sidedress again every four to five weeks thereafter. Older plants may have to be staked and tied to help support their later heavy growth and weak branches.

Peppers will drop blooms and develop blossom-end rot when stressed, especially as a result of lack of soil moisture. Blossom-end rot shows up as a sunken brown or black area on the bottom of the pepper. Because peppers have a shallow root system, water thoroughly every week or 10 days if an inch of rain has not fallen.

Peppers can be harvested at any stage of development. Bell types are usually harvested when firm and green. If harvested immature, the fruit will be thin, soft and will shrivel. They may also be harvested after they have turned red or yellow. At this time, they will be sweeter and have higher carotene content. Carotene is a precursor to vitamin A. Other types may be harvested in the mature green stage or at full maturity and full color development. When removing the fruit, hold the stem and snap the pepper off carefully. Pepper plants are brittle and break easily.

Fresh peppers may be stored four to five weeks in a refrigerator if kept at 33 to 40 degrees.

**Pest Control**

The roots of the pepper plant grow near the surface, so use only shallow cultivation (particularly on older plants) to control weeds.

Several herbicides are approved for peppers. These include Dacthal and Treflan. These selective preemergence herbicides normally suppress weeds for six to eight weeks. Control grassy weeds postemergence with Poast herbicide. Follow label directions, or contact your county agent for more information on the proper use of these herbicides.

Insect and disease pests may destroy your peppers if left unchecked. Southern Blight is a disease that causes pepper plants to wilt and die during the hot season. The sudden wilting and cotton-like growth around the stem at the soil line are a certain diagnosis of this disease.

Viruses are brought to the plants by aphids feeding on them. They cause a stunting of growth, a light and dark mottling with distortion of the leaves and lower yields. The best protection is to use virus-resistant varieties and control the aphids, especially on young plants. Using aluminum-painted plastic mulch may also help to discourage viruses.

Read all labels before applying pesticides. The proper use of these materials will be beneficial to you, your crops and the environment. Proper timing, proper application and use of the correct amount are essential for the safe use of pesticides. The table on the next page suggests some common problems and their control.
<table>
<thead>
<tr>
<th>Pest</th>
<th>Control</th>
<th>Rate/Gal. Water</th>
<th>Cut-off Date</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthracnose (Fruit Rot)</td>
<td>Maneb 80 WP</td>
<td>1 T</td>
<td>0</td>
<td>First appearance &amp; 7- to 10-day intervals.</td>
</tr>
<tr>
<td>Bacterial spot</td>
<td>Copper (fixed)</td>
<td>2 T</td>
<td>0</td>
<td>First appearance &amp; 7- to 10-day intervals. Obtain new seed source.</td>
</tr>
<tr>
<td></td>
<td>+ Maneb 80WP</td>
<td>1 T</td>
<td>0</td>
<td>Allow mixture to sit 90 minutes before spraying.</td>
</tr>
<tr>
<td>Blossom-end rot</td>
<td>Keep well watered and spray calcium nitrate or calcium chloride.</td>
<td>2.5 T</td>
<td>—</td>
<td>First appearance and 2-3 additional applications. Check soil pH for possible problems.</td>
</tr>
<tr>
<td>Ants</td>
<td>Diazinon 2 EC</td>
<td>5 T</td>
<td></td>
<td>Treat mounds.</td>
</tr>
<tr>
<td>Aphids</td>
<td>Malathion 57%</td>
<td>2 t</td>
<td>3</td>
<td>As insects appear.</td>
</tr>
<tr>
<td></td>
<td>or insecticidal soap</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Beetles, caterpillars,</td>
<td>Sevin 80%S or</td>
<td>2 T</td>
<td>1</td>
<td>As insects appear.</td>
</tr>
<tr>
<td>Pepper weevil</td>
<td>Bayer Power Force</td>
<td>1 T</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Cutworms</td>
<td>Diazinon</td>
<td>6 fl. oz./1000 ft.²</td>
<td></td>
<td>Apply broadcast and mix into top 2 inches soil.</td>
</tr>
<tr>
<td>Leafminers</td>
<td>Bayer Power Force</td>
<td>1 T</td>
<td>7</td>
<td>See label for waiting period between application and harvest. As insects appear.</td>
</tr>
<tr>
<td>Mites</td>
<td>Dicofol 18.5 EC</td>
<td>1-2 T</td>
<td>2</td>
<td>As mites appear.</td>
</tr>
<tr>
<td>Vegetable weevil</td>
<td>Malathion 57%</td>
<td>2 t</td>
<td>3</td>
<td>As insects appear.</td>
</tr>
</tbody>
</table>

T = tablespoon           t = teaspoon

Acknowledgements
The authors would like to express appreciation to Ken Whitam and Mike Cannon (both retired) for their past input and suggestions.