Pepper

Planting
Peppers (*Capsicum annuum*) are warm-season plants that grow best at temperatures of 70 to 85 °F during the day and 60 to 70 °F during the night. Peppers generally require a long growing season and grow very slowly during cool periods. Therefore, after the soil has thoroughly warmed in the spring, set out 6- to 8-week-old transplants to get a head start toward harvest. Do not plant peppers in the garden until after the last chance of frost. Start seed indoors six to eight weeks prior to this date.

Transplanting Dates

<table>
<thead>
<tr>
<th>Area</th>
<th>Spring</th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piedmont</td>
<td>May 1-30</td>
<td>July 20-25</td>
</tr>
<tr>
<td>Central</td>
<td>April 5-25</td>
<td>July 15-25</td>
</tr>
<tr>
<td>Coastal</td>
<td>Mar.25-Apr.10</td>
<td>July 20-25</td>
</tr>
</tbody>
</table>

Peppers should be spaced 12 inches apart in the row. Rows should be 3 feet apart. Pimento peppers require 18 to 24 inch spacing in the row. Rows should be 42 inches apart.

Select a well-drained, loamy or sandy loam soil for planting. Avoid areas that have had eggplant, tobacco, pepper or Irish potato planted in the previous year.

Cultivar Types
Although types of peppers belong in one of six groups, most are classified according to their degree of hot or mild flavor. The mild peppers include bell, banana, pimento and sweet cherry. The hot peppers include the cayenne, celestial, large cherry and tabasco.

Bell peppers measuring 3 inches wide by 4 inches long usually have three or four lobes and a blocky appearance. They are commonly harvested when green, yet they will turn red or yellow when fully ripe. About 200 varieties are available. Other sweet peppers are conical, 2 to 3 inches wide by 4 inches long, have thick walls and are used when red and fully ripe. Banana peppers are long and tapering and harvested when yellow, orange or red. Plant Hungarian wax if a mild hot variety is desired. Cherry peppers vary in size and flavor. Usually they are harvested when orange to deep red.

Slim, pointed, slightly twisted fruits characterize the hot cayenne pepper group. These can be harvested either when green or red and include varieties such as anaheim, cayenne, serrano and jalapeno. Celestial peppers are cone-shaped, ½ inch to 2 inches long and very hot. They vary in color from yellow to red to purple making them an attractive plant to grow. Slender 1- to 3-inch pointed tabasco
peppers taste extremely hot and include such varieties as chili piquin and small red chili.

**Recommended Cultivars**

- **Sweet Peppers**: Blushing Bear, Keystone Giant, Jackpot, Sweet Banana, Valencia
- **Hot Peppers**: Jalapeno, Red Chili, Giant Thai, Super Cayenne II, Hungarian Yellow Wax

**Fertilizing**

Peppers require moderate amounts of fertilizer. A soil test is always the best method of determining the fertilization needs of the crop. Information on soil testing is available in the fact sheet HGIC 1652, *Soil Testing*.

If a soil test has not been taken, make a preplant application of 5-10-10 at the rate of 3 pounds per 100 square feet. Use a starter solution for transplants, and sidedress cautiously after the first fruit reach about the size of a dime using three tablespoons of 33-0-0 per 10 feet of row. Sidedress cautiously until a large number of peppers are set. Too much nitrogen before fruit set causes all foliage and no fruit. After fruit set, fertilize regularly using a complete fertilizer. **Soil pH** should be 5.8 to 6.5 for best growth.

**Watering**

Practice good cultivation and provide adequate moisture. Water the garden to provide a uniform moisture supply to the crop. Water sufficiently to moisten the soil to a depth of at least 6 inches. The critical period for moisture is during fruit set and fruit development. Mulching can help to provide uniform moisture, conserve water and reduce weeds.

**Harvesting & Storage**

Peppers should be ready for harvest in about 70 to 85 days after transplanting. When starting from seed, expect 100 to 120 days to maturity. Harvest sweet peppers when they reach full size, the fruit walls are firm, and the peppers are still in the green or yellow state. The stems of pepper plants are brittle. When harvesting the fruit, cut the stems instead of pulling, to avoid breaking branches.

Varieties turn from green to red, yellow or chocolate when allowed to mature on the plant. Bell peppers can be left on the plant to turn color; however, they should be picked as soon as they change color.

Hot peppers, except for jalapenos, are allowed to ripen and change colors on the plant. Jalapeno peppers should be harvested when the fruit turn black-green. Entire plants may be pulled and hung just before full frosts. Yields are smaller for hot peppers.

Store peppers in the refrigerator. The optimal conditions for storage are temperatures of 45 to 50 °F and 80- to 90-percent relative humidity for two to three weeks.

**Problems**

Blossom-end rot is a common problem that causes a brown to black sunken rot at the blossom end of the fruit. It is caused by calcium deficiency. Blossom drop occurs when night temperatures are above 75 °F or when a crop of fruit set is excessive.

Insects that may be a problem include European corn borer, corn earworms and armyworms.

Many disease problems can be avoided by using certified disease-free seed and transplants. Do not use tobacco products near peppers, since tobacco mosaic virus can be readily spread from tobacco. The two most troublesome diseases of peppers in the home garden are bacterial wilt and bacterial leaf spot. Other disease problems include Fusarium wilt, Pythium root rot, Cercospora leaf spot, Southern blight and anthracnose (on fruit). Root-knot nematodes can also be a problem.

Reduce disease problems by:

- Rotating planting locations. Don't plant peppers, eggplants and related crops in the same garden spot more often than once every three years.
- Removing all plant debris from the garden each year. Eliminate any volunteer pepper plants that may occur between crops.
- Purchasing disease-free transplants. Inspect plants and be sure they have no spots or lesions on them at the time of purchase.