Peppers

Peppers are a tender warm-season vegetables which require somewhat higher temperatures and moisture than tomatoes for good growth and fruit development. Peppers are native to South America. The scientific name of cultivated pepper is *Capsicum annuum*. The varieties which we are most familiar with are sweet. They can be eaten green or ripe, in salads, stuffed, in soups, and pickled or in relishes. The hot peppers have also become more popular as new varieties with moderate hotness have been developed.

Peppers are not difficult to grow, but have some more exacting requirements than other warm-season vegetables. The easiest peppers to grow generally have smaller fruits. The largest peppers or bells are the most difficult.

Growth Requirements

The pepper is of tropical origin and does best when temperatures are warm. In the spring, peppers should not be planted outdoors until the soil temperature reaches about 65 degrees and this can be determined by a soil thermometer placed at a depth of 6 to 8 inches. In general, without additional protection, peppers are very sensitive to cold night temperatures. Generally in St. Louis, you can plant young seedlings safely in the garden around mid-May.

Blossom drop is the number one complaint with peppers and can be attributed to several causes. First, when temperatures go below 60 degrees at night, this can result in increased blossom drop. Likewise, when the temperature goes above 80 degrees during the day and especially when they reach 90 degrees, blossoms will drop as is commonly found with tomato. Often, fruits set at high temperatures become misshaped and small. Generally, a growing range of 70 to 80 degrees during the day and in the 70s at night is considered ideal. Another factor that leads to blossom drop and failure to set fruit is a lack of water at bloom time.

Soil Requirements

Peppers grow best when they are planted in soils with good drainage, average fertility and an abundance of organic matter. Soils which are heavy with clay or too much organic matter may become soggy and should be avoided. These conditions upset the ability of the plant to regulate moisture flow. Peppers are not particularly sensitive to exacting pH conditions, however, a range of 5.8 to 6.8 is best. Before planting, this should be checked through a soil test.

Seeding and Planting

Like tomatoes, if you plan to plant only a few peppers, it is best to buy transplants at a local nursery rather than seeding a crop. The disadvantage is that typically only few varieties are available. Alternatively,

peppers can be started by seed and should be sown at least 10 weeks before you plan to set them into the garden, around early to mid-March in St. Louis. The seeds should germinate in about 10 days. Soil temperatures of around 80 degrees are best. This can be accomplished indoors by placing the seedling trays on heat cable or pad.

Before planting the seedlings into the garden, they should be taken outside to harden off for about 10 days under dappled shade. All plants should be 6 to 8 inches tall and fill the container with white roots. Many of these plants will already be in flower. Plants and rows should be spaced about 2 feet apart. Stakes can be used to support the top weight.

To ensure that the garden soil is warm enough to plant, gardeners sometimes will put down black plastic mulch just after it has been tilled in the spring. Determine if frost is forecast before setting transplants into the garden. Once planted and if frost is predicted, cover the plants with a bushel basket or plastic sheet.

Cultural Practices

Within three weeks, plants in the garden should be mulched to prevent excessive moisture loss, lessen soil compaction and reduce weed growth around the plants.

After a good crop of fruit has been set, a fertilizer application of about 2 tablespoons of 12-12-12 can be placed around the base of each plant. Doing this too early can cause problems with fruit set and development.

Harvesting and Storage

Bell peppers are usually harvested at an immature stage when they are full sized and green. If picked when red, the fruit may become soft and storage life will be shortened. Harvesting occurs generally from 60 to 80 days after transplanting. The fruit should be cut and not pulled from the stem. This will avoid damage to the stem because they can be quite brittle. A typical yield for bell peppers is 6 to 8 fruits per plant.

The storage life of most bell peppers is short, extending only one to two weeks if harvested when green. The storage life will be shortened if fruit is harvested after they begin to turn red. Generally, this does not affect the flavor, however, keeping quality may be reduced to less than one week. The best storage conditions are under high relative humidity at 45 to 50 degrees.

Recommended Varieties

The following are some recommended varieties for St. Louis.
Sweet Bell

Green	**Yellow**	**Purple**
'Superset'	'Gypsy'	'Purple Belle'
'Tasty'	'Yellow Belle'	'Chocolate'
'Bell Boy'	'Golden Summer'	'Chocolate Bell'
'Crispy Hybrid'		
'Thickset'		

Banana
'Giant Yellow'

Hot

'Anaheim' (mild)
'Jalapeno'
'Long Red Cayenne'
'Thai'
'Habanero'

Sweet Cherry
'Sweet Cherry'