

2007 Disease Prevention and Spray Guide (Pepper)

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Soilborne diseases. There are several soilborne diseases that affect pepper. These diseases can attack the crop from seedling stage through harvest and are referred to as collar-rot diseases. Many of these diseases, however, attack the foliage and pods and are deposited there by water splash or by physical contact between the fruit and the soil. Early, seedling crown rot can be caused by either *Rhizoctonia solani*, and species of *Pythium*. Be careful that heat scalding on the stem of young peppers is not misidentified as disease. This is caused by the young pepper stem rubbing against the hot plastic which leaves a dry, tan lesion. **Southern stem rot** (*Sclerotium rolfsii*) can cause both seedling and pod rots and is more of a problem in warmer weather. **Phytophthora crown and fruit rot** (*Phytophthora capsici*) can damage the roots, crown, foliage and fruit.

Recommended practices in chronological order are as follows:

1. Rotation with non-solanaceous crops reduces potential inoculum of all of the above diseases except Phytophthora crown and fruit rot.
2. Avoid low-lying, wet areas and poorly drained conditions that favor Phytophthora crown and fruit rot.
3. Deep turning with a moldboard plow will help with all diseases except *Phytophthora* and *Pythium*.
4. Fumigation with methyl bromide will suppress all soilborne diseases. Alternatives to methyl bromide that suppress diseases are Telone C-35, K-Pam, Vapam, and chloropicrin. Telone products are nematicidal.
5. Terraclor can be used as an at-plant drench to suppress Southern stem rot.
6. Products containing mefenoxam (Ridomil, UltraFlourish) can suppress losses to *Phytophthora*.

Foliar diseases. There are several foliar diseases of peppers. Bacterial spot (*Xanthomonas campestris* pv. *vesicatoria*) is a problem on some peppers almost every year. Many commercial cultivars have good resistance to races 0-5 but many races have been identified to which there is no resistance. Generally, bacterial spot control starts with clean seed and transplants. In-field suppression of bacterial spot is achieved by avoiding working in wet foliage and copper + maneb tank-mixes sprayed 2 – 3X a week (at least weekly during dry weather). Anthracnose (*Colletotrichum acutatum*) has become a problem in recent years. This disease affects primarily the pods and is best suppressed with fungicides like Tanos, Quadris, or Cabrio. Tanos may provide some additional suppression of bacterial spot. Endura is labeled for peppers but is primarily for **early blight** (*Alternaria solani*) and disease caused by *Botrytis cinerea*, both of which are rare in pepper in Georgia. Tomato Spotted Wilt Virus is a problem in pepper, especially bareground. However, there are pepper varieties, mainly Stiletto, that have good TSWV resistance as well as resistance to bacteria.

Recommended practices in chronological order are as follows:

1. Rotation with non-solanaceous crops reduces potential inoculum from anthracnose.
2. Use bacterial spot resistant varieties if available.
3. Avoid stringing or staking peppers when field are wet.
4. Spray copper + maneb beginning at transplanting and carry through harvest for bacterial spot.
5. Begin alternating in Quadris, Cabrio, or Tanos prior to fruit formation for anthracnose.

Note (be sure to follow label on high fungicide resistance risk products like these).

Spray Schedule for Peppers

<u>Transplanting</u>	<u>Blooming</u>	<u>First Fruit Begin to Form</u>	<u>Fruit Set</u>	<u>Harvest</u>
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copper + maneb from 1 – 3 sprays/week until harvest.....
Begin Quadris or Cabrio every other week for anthracnose

Ridomil Gold/Copper according to label for Phytophthora crown and fruit rot