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FOR THE WEEK OF July 18, 2005

### **Soybean Aphids**

The highest levels of aphids continue to be found in northeast Iowa, but soybean aphid distribution is now found across Iowa. One factor that seems to separate this year from 2003 is that the infestations are more spotty. The majority of a given field may have a low population of aphids, but the field may have a "hot spot" of high population. Even in the research trial near Decorah, the small replicated check plots have some with aphid populations still under 300 per plant, but others at over 1,000 per plant. When scouting, look for areas of a field under more stress. Aphids seem to do better on plants under stress, particularly drought stress. Also, watch for spider mites. Continued dry weather and the presence of spider mites will influence your insecticide choice. Brian Lang ISU Crop staff provides this information.

### **Control of Tomato Blights in the Home Garden**

Early blight and Septoria blight are the two most common foliar diseases of tomato. Early blight produces brown spots (up to 1/2 inch in diameter) on infected leaves. Concentric rings of darker brown often appear in the leaf spots. Septoria blight produces small brown spots (approximately 1/8 inch in diameter) with tan or gray centers and dark edges. Both diseases cause heavily infected leaves to eventually turn brown, die, and fall off. Lower leaves are infected first with the diseases progressing upward during the growing season. Wet spring and early summer weather favors development of early blight and Septoria blight. Defoliation may be severe when favorable weather conditions exist.

Early blight and Septoria blight overwinter on plant debris left in the garden. Fungal spores are splashed onto the foliage by raindrops or when watering. A wet leaf surface is required for the spores to invade the plant tissue. Home gardeners can reduce blight problems on their tomatoes with good cultural practices. Fungicides may also be needed.

- \* Select stocky, healthy plants at a garden center or greenhouse. Unfortunately, there are no tomato varieties resistant to the tomato blights.
- \* Plant your tomatoes in a different location in the garden each year. Rotate crops so that tomatoes and other solanaceous crops (potatoes, peppers, and eggplants) are not grown in the same area for at least 3 or 4 years.
- \* When planting tomatoes, space plants approximately 3 feet apart. Adequate spacing allows good air movement and promotes rapid drying of plant foliage.
- \* Grow tomato plants in wire cages. The foliage of tomatoes grown in cages will dry more rapidly than those sprawled on the ground.
- \* In early June, apply a 2 to 3 inch layer of mulch around each tomato plant. Shredded leaves, dry grass clippings, and straw are excellent mulches. The mulch reduces the splashing of fungal spores onto plant foliage.
- \* Avoid wetting tomato foliage when watering. Apply water directly to the ground around plants with a soaker hose or slow running hose. If a sprinkler must be used, water in the morning so the foliage dries quickly.
- \* While cultural practices may help control tomato blights, fungicides are often needed. Apply fungicides (chlorothalonil, maneb, or copper-based fungicides) at 7 to 14 day intervals beginning 2 to 4 weeks after transplanting. Thorough coverage is essential.
- \* If blight occurs, remove and destroy infected leaves as they appear. Prompt removal of infected leaves may slow the progress of the blights. At the end of the gardening season, remove and destroy all infected tomato plants. Clean up and dispose of as much tomato plant debris as possible.

Tomato blights are common problems in the home garden. Good cultural practices and timely fungicide applications can help control these diseases and allow the gardener to harvest a bountiful tomato crop. Richard Jauron Dept. of Horticulture Iowa State University prepared this information.