There are three common fungus problems that affect roses: Black Spot, Powdery Mildew and Cercospora Leaf Spot. Powdery Mildew is addressed in a separate info-sheet (read about Powdery Mildew here). Cercospora Leaf Spot (Images 1 and 2), look like most leaf spot fungus with a dark margin and a tan or grey center. This leaf spot starts as a purplish spot then the center turns color as the leaf begins to die. Control is the same as Black Spot, both in timing and chemical.

Black Spot (Images 3 and 4) is often an irregular spot with feathery borders. Yellowing may appear around the spots, (Image 4, but is starting in Image 3 as well). Leaves are the most susceptible, but spots can be seen on other parts of the plant including the stem (Image 5).

Infection usually starts on the lower leaves and works its way up the plant (Image 6). As the yellow proceeds across the leaves, they will eventually drop, leaving the bottom of the plant bare with only a few leaves at the top (Image 7). This defoliation decreases the plant's energy reserves, reduces flowering and weakens the plant making it more susceptible to other stress factors such as drought and winter injury. Black Spot will be most severe when humidity is high, over 85%, when warm temperatures are over 75° and with six or more hours of leaf wetness.

**Control**

The first line of defense is to try some cultural controls: avoid planting susceptible varieties; keep irrigation water off the foliage; plant in full sun with good air movement. Also, try sanitation by removing diseased leaves that have fallen and prune out infected rose canes. Spray if needed.

- **Natural Guard® Brand by ferti•lome® Neem** and **ferti•lome® Triple Action** are natural choices for treatment of Black Spot. Both of these have the added advantage of insecticide protection, including a miticide for treating spider mites. Apply at least three times 7 to 10 days apart.
- **ferti•lome® F-Stop** is a very effective broad-use fungicide. As a preventative, apply every 2 weeks. As a control, apply every 7 to 10 days. If disease pressure is great, rotate use with ferti•lome® Liquid Systemic Fungicide.
- **ferti•lome® Liquid Systemic Fungicide** is a systemic fungicide to be applied at 10 day intervals. Another systemic option is **ferti•lome® 2-N-1 Systemic** which has a fungicide and an insecticide and can be used as a drench— no spraying!

Due to the decline of plant vigor under the pressure of Black Spot, fertilize every 6 to 8 weeks to help with recovery. Fertilize with ferti•lome® Rose Food or ferti•lome® Rose Food with Systemic. Both have micro-nutrients including Iron to improve color and vigor. For an organic choice use **Natural Guard® Brand by ferti•lome® Rose & Flower Food**.