**Phomopsis**
*(Phomopsis viticola)*

**Winter:** Bleached spur with tiny raised black pimple-like pustules

**Early Spring:** Shoot infections first occur at the base of the shoot as individual spots

**Late Spring / Summer:** The lesions coalesce to give the base of the shoot a scabby appearance

**Winter:** Basal leaves have chlorotic spots with a tiny black center

**Late Spring / Summer:** Cracks develop on the epidermis of the shoot as the lesions elongate

**Winter:** Longitudinal cracks intermixed with bleached areas on a severely infected spur

**Late Spring / Summer:** Basal leaves have chlorotic spots with a tiny black center

Authors: Lucia G. Varela & Rhonda J. Smith, UC Cooperative Extension. Photos by Jack K. Clark, University of California. © 2009 by the Regents of the University of California
When pruning look for whitish or bleached areas on the canes. These will have tiny raised black pustules (pycnidia - fruiting bodies) that contain overwintering spores. The bleached areas will be intermixed with scabby areas. Bleached wood seen during the winter may also be the result of fungal activity not associated with *Phomopsis viticola* including *Botrytis cinerea*. Although rare in the North Coast, the base of bleached canes may be dead at the time of pruning – killed outright by the fungus or by normal winter temperatures.

**February – March**

The buds on severely infected spurs may not push. If rain occurs after bud break, all green tissue is susceptible to infection; however it will be several days before any signs of infection occur. About 3 weeks after rainfall, tiny black dots with yellow margins begin to appear on the leaf blades as they expand. Infected spots on the shoot or cluster may be difficult to see at this time. Note: small black spots seen on green tissue at this time of year may not be a fungal infection.

**March – April**

Heavy frequent rainfall will cause more infections and these will proceed to continue to damage the basal leaves, base of the shoot and all cluster parts. Basal leaves may become distorted because infected areas prevent normal expansion of the leaf tissue. If the petioles are infected, the leaves may abscise. Small oblong spots with black centers will appear on the base of the shoot. As the shoot elongates, lesions also expand causing the outer layer of green tissue to crack at the infection sites. Continued rainfall will cause large numbers of spots to eventually coalesce, resulting in a black scabby appearance. Internode length may be reduced in these areas thus the shoot will be stunted. These infections will only occur on the basal portion of the shoot. Similar spots may be present on any part of the cluster rachis or peduncle.

**May – June**

Dry weather will stop the growth of the fungus. New infections will only occur with rainfall. In windy areas, shoots that were stunted early in the season may break off near the base where most of the disease symptoms are present.

**June – July**

After leaf removal occurs, shoots with black, scabby basal internodes will be easier to see. The impact on clusters, if any, will also be more apparent.