Disease Pathogen Name:  *Ciboria carunculoides* (Siegler & Jenkins) Whetzel
Pathogen Type:  Fungus
Period of Primary Occurrence:  late May through July
  - Late May through July when mulberries produce flowers and fruit
Plants Affected
  - White mulberry varieties and some hybrids are more susceptible to popcorn disease
  - Other types of mulberries are less susceptible

Description / Symptoms
  - This disease is known only in the southern states
  - Infected carpels on fruit resemble un-popped kernels of popcorn, hence the common name for this disease (Fig. 1-5)
  - Infected carpels of the fruits swell and initially remain greenish
  - Infected carpels of the fruit eventually develop hard thickened fungal structures (known as sclerotia) (Fig. 4)
  - These structures enlarge and extend out beyond healthy berries
  - Disease interferes with ripening
  - Disease is of little economic importance to home gardeners as it does not lessen the value of the tree as an ornamental
  - Overall health of mulberry plants in the landscape not significantly affected
  - Popcorn disease on mulberries propagated for fruit production can cause high yield losses

Best Management Practices (BMP)

**NON-CHEMICAL CONTROL**
  - Disease carries from one season to the next so practice good garden sanitary measures
  - Collect infected fruit on the trees and any infected fruit on the ground; place and seal in plastic bags for disposal through curbside trash pickup
CHEMICAL CONTROL

- Fungicide sprays are not generally warranted for the home landscape.
- When control is desired, a Bordeaux mixture (originated in France) of 4-4-50 is effective.
- For a small amount of mixture, the ingredients are:
  - 3 1/3 tablespoons of copper sulfate
  - 3 tablespoons of hydrated lime, mixed in one gallon of water.
  - The mixture will turn the tree blue; however, the color will eventually disappear.

Caution must be taken NOT to store a mixture of Bordeaux. The ingredients must be kept separate and custom-mixed as a fresh spray.