### TOBACCO

#### FUNGICIDE FROM BAYER APPROVED FOR USE ON TOBACCO IN 2006
by Kenny Seebold

While at the 42nd Tobacco Workers’ Conference in Charleston, SC, I learned that Aliette WDG (Bayer CropScience) was recently labeled for control of blue mold on tobacco. Aliette can be used in the production of transplants (greenhouses, outdoor float beds, outdoor plant beds) and on transplanted tobacco in the field.

The use rate for transplant production is 0.5 lb of product per 50 gallons of water. Aliette WDG should be applied as a broadcast spray in a volume of water sufficient to provide good coverage of foliage and minimize contact with float-bed water or soil. According to the label, leaf burn can result if Aliette is allowed to wash into float water or the root zone of transplants. Bayer recommends 3 gallons of spray solution per 1000 square feet on small plants, increasing to 12 gallons/1000 square feet on large transplants. After application, wait 24 hours before applying any material over the top so that Aliette can be absorbed into the foliage and to avoid washing the fungicide into float water or soil. Applications of Aliette should begin before symptoms of blue mold appear, ideally, or when the first symptoms are observed. Two applications can be made 5-7 days apart.

For field use, apply 2.5-4 lb/A of Aliette in a minimum of 20 gal/A of water on newly transplanted tobacco. Increase the spray volume by 20 gal/A for each week of growth until 100 gal/A is reached. The first application of Aliette should be made immediately after transplanting and subsequent sprays can be made on a 7-to10-day schedule. Do not exceed 4 lb/A per treatment or 20 lb/A per season (5 applications); the pre-harvest interval for Aliette is 3 days.

#### FRUIT CROPS
Prepare to manage apple scab in 2006
by John Hartman

Apple scab, caused by the fungus *Venturia inaequalis*, has the potential to be the most common and destructive disease of Kentucky apple orchards. Fortunately, most commercial growers have the tools and expertise to manage this disease well. Apple scab affects several different hosts including: apples and flowering crabapples (*Malus* spp.), hawthorn (*Crataegus* spp.), mountain ash (*Sorbus* spp.), firethorn (*Pyracantha* spp.), and loquat (*Eriobotrya japonica*). Pear (*Pyrus* spp.) is infected by a related fungus, *Venturia pirina*, which causes nearly identical symptoms.

Infections occur on leaves, fruits, blossoms, and leaf petioles and first appear as velvety brown to olive colored spore-filled lesions that turn black with age. Fruit scab lesions develop a corky appearance, and fruits infected early in their development may become cracked and de-
formed. When apple leaves become infected, they turn yellow and drop.

Overwintering apple leaves provide the spores that initiate primary infections on new growth in early spring. For newly emerging leaves to become infected, spores on the leaf surface must be bathed in a film of moisture for enough time as is necessary for the spores to germinate and penetrate the leaf. The length of time needed depends on the temperature. The temperature and leaf wetness relationship to infection levels is presented in the following table, sometimes referred to as Mills table. After primary infections occur in early spring scab lesions develop and conidia are produced in the lesions, providing secondary inoculum for continued infections of new leaves. Leaf wetness and temperature relationships for secondary scab infection are similar to the primary infection values presented in Mills table.

### Apple Scab Management

Apple scab can be managed by doing the following:

- **Use scab-resistant varieties where possible.**
- **Apples considered to be very resistant (scab immune) include:** Britegold, Dayton, Enterprise, Freedom, Goldrush, Jonafree, Liberty, Macfree, Moira, Murray, Nova Easygro, Novamac, Prima, Priscilla, Pristine, Redfree, Richelieu, Sir Prize, Trent, Williams Pride.
- **Apples said to be resistant, but not immune:** Gala Supreme, Sansa
- **Be aware that new and emerging strains of the apple scab fungus have the ability to overcome host tree resistance.**
- **Use weather instruments and scab infection tables to know when infection occurs.**
- **Apply fungicides in a timely way.** For application timing, refer to U.K. Cooperative Extension Service publication ID-92, Commercial Tree Fruit Spray Guide 2006. Early control of primary infections is essential and will reduce the need for late season disease control.
- **According to the fungicide efficacy table listed in ID-92, fungicides such as Captan, Flint, Nova, Pristine, Procure, Rubigan, Sovran, Syllit, and Topsin-M provide excellent scab control while mancozeb, Polyram, Scala, and Vangard provide good control and Bayleton, Ferbam, Sulfur, Thiram, and Ziram provide only fair control.**
- **Use a combination of eradicant fungicides such as Nova, Procure, or Rubigan and protectant fungicides such as Captan or Mancozeb.**
- **Prune to thin out foliage for good ventilation and sunlight penetration.**
- **Chop up fallen leaves in autumn.**
- **Be sure sprayer is properly calibrated. Water-sensitive paper hung in the tree can provide useful information on sprayer coverage.**

Growers have several apple scab management tasks that need to be done now, before buds swell and new growth begins to emerge. Chop up fallen leaves in the orchard, prune trees to provide better air movement, purchase new trees, acquire needed fungicides, and calibrate the sprayer.

![Signature](Lee Townsend, Extension Entomologist)