

## DISEASE MANAGEMENT

from *FloriBytes* - Digital newsletter for the floriculture industry  
The Ohio State University Extension  
Year II. Issue 1 May 2007 pp. 4-7

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As the old saying goes “April showers bring May flowers” and to the greenhouse production industry May brings “color” to the greenhouse in the form of flowers which are good for both spring sales and *Botrytis*. This should not come as anything new to the seasoned grower, but hopefully will serve as a reminder to be diligent in scouting your crops during this peak of the busy season. Introductory plant pathology teaches us that disease requires 1) a susceptible host plant, 2) a pathogen, and 3) a favorable environment. As you have all heard or read repeatedly, *Botrytis* (commonly referred to as gray mold) is dependent on damp, cool, cloudy conditions in order to produce spores in huge numbers which are readily dislodged and blown or splashed to susceptible plant tissues. Green tissues are not particularly a desired meal for *Botrytis* but flowers, flower parts, and senescing tissues are prime rib to this pathogen! Concurrent with the presence of these tissues (like now during the peak sales season), favorable weather conditions (cloudy, wet, cool) complete the recipe for disaster. This is why for years you have heard about watering early, heating and venting to reduce humidity, maintaining good air circulation, and possibly applying a preventative fungicide to avoid the unsightly, fuzzy mess that *Botrytis* can cause. These management factors are important but so are sales, moving plants, loading, and just plain being busy (which hopefully goes with the season). Try to be proactive when it comes to *Botrytis* control because once it starts it’s as hard to stop as a fast moving freight train! You work hard for months to produce those beautiful plants, so try to avoid investing time and energy “dumping” them to clean up your operation. The figures below will serve to remind you of some of the classic symptoms caused by *Botrytis*...take appropriate action at the first sign of these warnings!

To review the *Botrytis* basics:

- Botrytis is found everywhere and is the most common fungal pathogen of greenhouse ornamentals
- Botrytis is an airborne fungal pathogen and is an “equal-opportunity” pathogen (attacks almost all plant species)
- For disease to occur, Botrytis requires moisture (free water) and a food base (senescent plant tissue)
- Botrytis sporulates profusely under favorable conditions (high humidity and cool temperature) producing millions of infective spores
- Good sanitation, reduced humidity through heating and venting along

with good air movement, and a good preventative fungicide program during conditions favorable to disease (using a rotation of products to prevent resistance buildup) are the best tools available to combat this disease



Figure 1. Spots on petunia flowers



Figure 2. Leaf blight on vinca (note profuse spore production)



Figure 3. Leaf spot on begonia



Figure 4. Leaf blight on begonia moving into stem rot phase