

Forecasting Mummyberry Fungus Infection

Mummyberries form small cups in the spring that produce spores that land on blueberry leaf and flower buds. To infect the plants, the mummyberry spores need both the blueberry buds to be at a susceptible stage AND to have a long enough wet period for that day's temperatures.

If mummyberry blight has NOT occurred in your field or adjacent fields before, it is very unlikely your field will get the disease.

To determine when you should spray a field that has had mummyberry blight in previous years, answer the questions below.

To determine when you need to apply the first spray, ask yourself the following questions:

- 1) Are the blueberry buds at a susceptible stage? (see back of sheet for method) If 40 percent to 50 percent of the stems have flower buds at stage F2 or leaf buds at V2 stage, the plants are susceptible, go to question 2. If the answer is NO, a spray is not necessary at this time.
- 2) Have the temperature and wetness duration requirements occurred for a moderate to high infection? Refer to the table below. If YES, apply the fungicide within 72 hours from the start of the wet period. Follow the 2008 fungicide application recommendations for disease control (Bulletin #219). If NO, wait for the next fog or rain event and determine using the table below if an infection period has occurred.

When to stop spraying. When the mummyberry cups in your mummyberry patch are decaying and no new cups are being produced (see back of sheet), there is NO longer a possibility of infection and you do NOT need to spray.

Severity Rating of Monilinia Infection Periods					
Wetness Duration (Hours)	Mean Temperature (°F) during Infection Period				
	36°	43°	50°	57°	65°
2	NONE	NONE	NONE	NONE	NONE
4	NONE	NONE	NONE	LOW	MOD
6	NONE	LOW	LOW	HIGH	HIGH
8	NONE	MOD	HIGH	HIGH	HIGH
10	MOD	HIGH	HIGH	HIGH	HIGH
15	MOD	HIGH	HIGH	HIGH	HIGH
24	HIGH	HIGH	HIGH	HIGH	HIGH

To determine the percentage of plants in a field that are susceptible

- Collect 20 stems randomly in a transect across the field
- Count the number of stems that have any flower buds at F2 stage (flower buds are easier to see but you can use leaf buds at V2 stage).
- Multiply the number of stems with susceptible buds by 5 (if you looked at 20 stems) to get the percentage of susceptible stems in your field.

Lowbush blueberry FLOWER BUD STAGES

F0 – Buds tightly closed, no swelling

F1 – Buds swelling

F2 – **Susceptible.** Bud scales separating. Some green visible

F3 – **Susceptible.** Flower bud expanded and can see individual flowers visible



Lowbush blueberry LEAF BUD STAGES

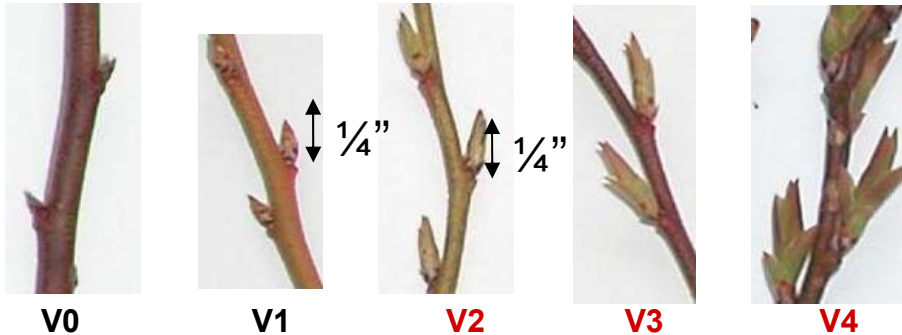
V0 – Buds tightly closed, no swelling

V1 – Buds swelling, green tips may be exposed

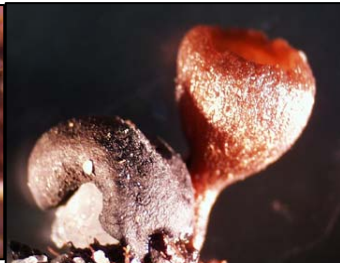
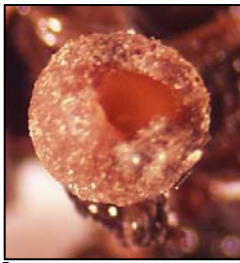
V2 – **Susceptible.** Green buds, green longer than 1/4 "

V3 – **Susceptible.** Green buds, leaf tips visible and separating apart

V4 – **Susceptible.** Leaves unwrapping and spreading out



Development of Mummyberries



Early stage of cup, NOT producing spores yet

Mature mummyberry cups producing spores (About 1/8" to 1/4" across)

Old mummyberry cups, NOT producing spores