

ALERT!!!

2006

Brown Rot Control

Recommendations for July and August in Areas with Resistance to the DMI Fungicides

(propiconazole, tebuconazole, fenbuconazole)

**by: Phillip Brannen,
University of Georgia, Plant Pathology**



Based on the information we have derived over the last few years, much of the middle Georgia *Monilinia fructicola* (brown rot) population may be resistant to the DMI fungicides, which means the DMIs just do not work as effectively as they did in the past. To date, brown rot incidence has been minimal, but we are starting to have some mid-season rains, so things may change quickly. This is no time for complacency in our management of brown rot resistance.

Overall, it has been a dry year, with little or no blossom blight or green fruit rot. As such, the following spray program will likely be acceptable as we move forward:

- 21 days prior to harvest; Captan
- 14 days prior to harvest; Pristine at the high rate (the respiration inhibitor fungicides, such as Pristine and Abound, should be utilized at the high rate to avoid resistance development)
- 1-7 days prior to harvest; Elite (based on lab test from Clemson [Guido Schnabel], this DMI material is more active in the presence of DMI-resistant brown rot).
- If additional sprays are needed, alternate between Pristine and Elite.

Based on recent samples collected from Byron, resistance to the benzimidazoles (Topsin M) may still be observed in middle Georgia (Achour Amiri [Clemson University]; personal communication), as resistance isolates were recently collected from the USDA

station at Byron. We did have Topsin M in one treatment last year at this site, and it is not clear whether the brown rot population is generally resistant to benzimidazoles (left over from spraying of Benlate years ago) or whether one application will shift the population that quickly back to a resistant state. However, until we can sort this out and further confirm this, I would stay away from Topsin M for brown rot control – making our options even more limited.

Some producers may be under the misconception that since it is dry and we have limited brown rot, it will be acceptable to only use the DMI fungicides, especially Orbit or PropiMax or similar materials. This is not the case! Even in a dry year, if we rely on DMI fungicides alone for brown rot suppression, control may be less than stellar, and we can continue to shift the DMI resistance in the wrong direction – making for a potential disaster in the following year.

The data below was just collected from the USDA station at Byron, and this is a good example of the level of control afforded by a DMI-alone program this year. In the orchard, we did not observe brown rot in this block, but we did pick up more brown-rotted fruit with the PropiMax (propiconazole) applications as compared with Pristine. Last year, the PropiMax failed completely at this site in the presence of heavy rainfall, so yes, this is an improvement, but I would not count on propiconazole products alone for sufficient brown rot management, and I would use Pristine as one of the early applications, without regard to dry conditions or low disease pressure.

Treatment and Rate/Acre	Brown rot incidence* (% symptomatic fruit)	
	4 days after harvest	7 days after harvest
Untreated Control	20.5 a	29.5 a
PropiMax 3.6EC 4 fl oz (two applications)	1.9 b	7.8 ab
Pristine 38WG 14.5 oz (two applications)	0.0 b	1.3 b

* Means followed by the same letter within each column are not significantly different according to Fisher's protected LSD test ($\alpha = 0.05$). Analysis is based upon square-root-transformed data, but back-transformed data are shown for better interpretation.

One last note – I would still consider using Scholar in the packing line. It is the last line of defense, and it is highly active against brown rot, Rhizopus, Gilbertella, and Botrytis rots. One or two rejected loads will cover the cost of this material, so it is relatively cheap insurance. I hope this year continues to be a low disease-pressure year, but don't forget resistance management as you are making your control decisions.