Effective Management of Anthracnose Fruit Rot of Peach

Keep some Inspire Super (Syngenta) and Tilt or Orbit (Syngenta) in your pesticide shed, it might come in handy.

A mutant strain of anthracnose fruit rot (AFR; Figure 1, picture on right) caused a disease outbreak in 2012 that destroyed 60% of the late season crop in one location in South Carolina. Clemson research showed that the strain is resistant to Abound and Pristine, which until now were key weapons for AFR control. Why should you care? Because this strain can easily emerge in your fields as well.

The disease is typically found in mid- to late-season varieties as a result of heat in conjunction with several days of rainfall. AFR infections form a depressed, circular spot on the fruit surface. Lesions are marked by the occasional presence of cream to salmon-pink concentric rings of spores; also, a cone of dry, spongy tissue can easily be separated from the healthy tissue. The disease is typically caused by two different species, *Colletotrichum acutatum* and *C. gloeosporioides*. Both species are believed to infect ground cover, legumes and many perennials. Dissemination of spores occurs by wind and rain splash.

![Figure 1](image_url)

*Figure 1. Colletotrichum acutatum* (left) and *Colletotrichum gloeosporioides* (right) can cause anthracnose of peach.

The mutant strain was recovered by Schnabel lab scientists, and it is being analyzed for mechanisms of resistance and sensitivity to other fungicide classes that are available to growers. The strain was identified as *C. gloeosporioides*, and besides being resistant to Abound and Pristine, it cannot be controlled with Topsin M (thiophanate methyl), Scala (pyrimethanil), Vangard (cyprodinil) or even the double rate of Indar (fenbuconazole). Fontelis (penthiopyrad) at label rates that were sufficient for brown rot control inhibited growth in detached fruit assays by up to 80%. Although not yet tested, we suspect that Merivon will be similar in performance to Fontelis. But still, ‘up to 80% efficacy’ is not that great.
With all the negative information presented above, your next question has to be, “What options do I have?” Fludioxonil is a very good material for controlling AFR, including the mutant. We tested Switch (which contains fludioxonil and cyprodinil) and Scholar in our studies and both worked very well. However, only Scholar is registered for peaches as a postharvest treatment option. DMIs, such as Indar, are not generally recommended for AFR control (see my comments about Indar above) but we learned that difenoconazole is an exception. This DMI is not available as a standalone product, but it is available in premixtures, including Quadris Top, Inspire Super, and Inspire XT. We tested these products containing difenoconazole, and to make a long story short, Inspire XT was the best. Unfortunately this formulation is not registered for peaches; however, if you tank mixed Inspire Super at 20 fl oz with 4 oz of Orbit or Tilt you should get the same effect.

In conclusion, anthracnose during cover sprays is best controlled with captan. Then, if you start seeing anthracnose emerging in the summer time (watch for it after many days of rainy, hot weather), I recommend you add Inspire Super+Tilt to your spray program and rotate that with Merivon or Fontelis during preharvest season. It might just do the trick for you, and this strategy should also be extremely effective for brown rot control. Using postharvest Scholar applications will also protect your fruit from decay caused by this mutant strain.

Guido Schnabel, Clemson University

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