
New Developments in Melon Production

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Moderator: Mr. Tucker Price

DISEASE ISSUES IN WATERMELONS AND CANTALOUPE

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Although 2007 was a very dry summer, certain diseases of watermelons and cantaloupes caused serious problems for producers. The first big surprise was powdery mildew (caused by the fungus *Podosphaeria xanthii*) on ‘Athena’ cantaloupe, as well as other cantaloupe varieties and watermelons. Several growers reported this disease in 2007 which marked the first time the disease had been observed on that variety of cantaloupe in Georgia. The fact that powdery mildew was observed on ‘Athena’ may mean that we have a new race of powdery mildew, possibly race 3, because ‘Athena’ is resistant to both races 1 and 2 of the pathogen. Samples of powdery mildew were sent to Cornell University for fungicide screening and results indicated that most fungicides used are effective. The reason fungicides may not have worked as well as we would have liked because the disease caught us off guard and sprays may not have been applied in a more optimal, preventive manner.

Of equal or probably more concern was the discovery of boscalid resistance in gummy stem blight. Some growers reported disease

control failures with use of Pristine®, which has the active ingredient boscalid that provides gummy stem suppression. The grower samples, along with samples from replicated field trials indicated complete resistance to boscalid in most of the samples collected in 2007. Replicated field trials also demonstrated a significant decrease in the effectiveness of Pristine®, as disease control with that fungicide was near that of the non-sprayed plots. University of Georgia researchers and extension personnel are working to determine the extent of boscalid resistance in gummy stem blight and a screening program has been set up so as to screen all gummy stem samples that are delivered to the Plant Disease Clinic in Tifton.

Last but not least, Fusarium wilt reared it’s head again in 2007, causing losses similar to those observed in 2006. Several seed-treatment fungicides and foliar fungicides are being evaluated for suppressing losses to Fusarium wilt but grafting susceptible watermelons to resistant rootstocks have proven to be most effective in reducing disease so far.