

Extension helps strawberry growers fight aggressive plant disease

March 31 2008



Virginia's strawberry growers have been dealing with an uninvited guest in their fields this winter, anthracnose crown rot, one of the most destructive diseases of strawberries in the southeastern United States.

“If left undetected, the disease can spread quickly through a field and cause significant damage to the strawberry plants,” said Calvin Schiemann, agricultural and natural resources Extension agent in Virginia Beach. “Early detection and treatment hopefully has reduced its

impact on this year's crop."

Although, not typically a problem in Virginia, anthracnose crown rot is common in other southern states because it thrives in warm, moist weather conditions.

In December, a grower noticed an unusual number of suspect plants in his field and contacted Schiemann with his concerns. Schiemann and Jeremy Pattison, assistant professor and Extension small fruits and specialty crops specialist at the Southern Piedmont Agricultural Research and Extension Center in Blackstone, along with Mahfuzur Rahman from North Carolina State University's Department of Plant Pathology collaborated to quickly identify disease and determine the extent of the problem.

The researchers determined that the disease was originally transferred to Virginia through nursery stock from North Carolina that was inflected with the disease-causing pathogen. Schiemann and Pattison immediately began encouraging growers to survey their fields for signs of the disease and have been providing spray recommendations for fungicides to slow the spread of the disease in infected fields. If left untreated, the disease attacks the plant and causes wilting and the plant quickly dies.

Since the disease is most aggressive in warm and humid weather, Pattison is uncertain what the final impact will be for Virginia strawberry growers. More plants may be infected, but will not show symptoms until the weather warms up. "Many growers are currently reporting a 5 percent to 20 percent plant loss per acre, an economic loss of \$1,200 to \$4,500 in plants and potential fruit. Losses could rise as high as 50 percent in some cases," he said. Although this will impact the growers' bottom line, any increase in fruit prices will more likely be associated with the rise in input costs such as fuel and fertilizer, explained Pattison.

Anthrachnose crown rot has not been a major problem in Virginia in the past, but Pattison stresses that growers should expect this disease to show itself again. Not much is known about how the disease will persist in grower's fields and how it will impact next season's crop. Researchers have already stepped up their efforts to look at the disease from a genetic perspective for possible long-term solutions.

Although growers have been dealt this unanticipated challenge this winter, they are still hoping for a good crop of berries as long as they can weather any late spring frosts, according to Schiemann. "With the warm winter the plants are in an advanced stage of growth. We have a lot of blooms forming and crowns that will need to be protected from cold weather and frost," he said.

Source: Virginia Polytechnic Institute and State University

Citation: Extension helps strawberry growers fight aggressive plant disease (2008, March 31) retrieved 22 May 2024 from <https://phys.org/news/2008-03-extension-strawberry-growers-aggressive-disease.html>

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