

Researchers Working To Isolate New Soybean Virus

Vein Necrosis Syndrome Does Not Respond To Foliar Fungicides

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Dr. Melvin Newman, professor and Extension specialist in the Department of Entomology and Plant Pathology at the University of Tennessee may have found a new virus disease in soybeans. Working at the West Tennessee Research and Education Center in Jackson, Tennessee, Newman and researchers at Knoxville are trying to isolate the foliar virus which was found throughout Tennessee this past season. "Somehow it gets into the leaves of the plant and kills the veins, the leaf dies," said Newman.

"It is a slow process, we do not know how the virus is getting in the leaves, if it is a virus," he said. "We have researchers in Knoxville, Tennessee and they have isolated a virus that has not been described. We are taking that a step

ably lost some yield," according to Newman.

Newman has named the virus disease Vein Necrosis Syndrome (VNS). Newman suspects VNS will cause a yield loss in soybean fields. "The one field that was the worst hit, we figure there was some yield loss. We do not know of a control for VNS. I do know that the foliar fungicides did not work this past season. Of course they wouldn't if it is a virus. It was on every leaf on every plant throughout the field. It was very heavy. There had to have been damage. That is all we know."

Newman discovered reniform nematodes in Tennessee in 1992 which led to the development of the first Cotton nematode IPM program in Tennessee. Newman is also credited with the first wheat rust detection program in Tennessee, the first plant pest diagnostic handbook for insects and diseases, the first IPM program for soybeans, the first statewide soybean cyst nematode survey using GPS and the development of distance diagnostic services for the Tennessee Extension Service.

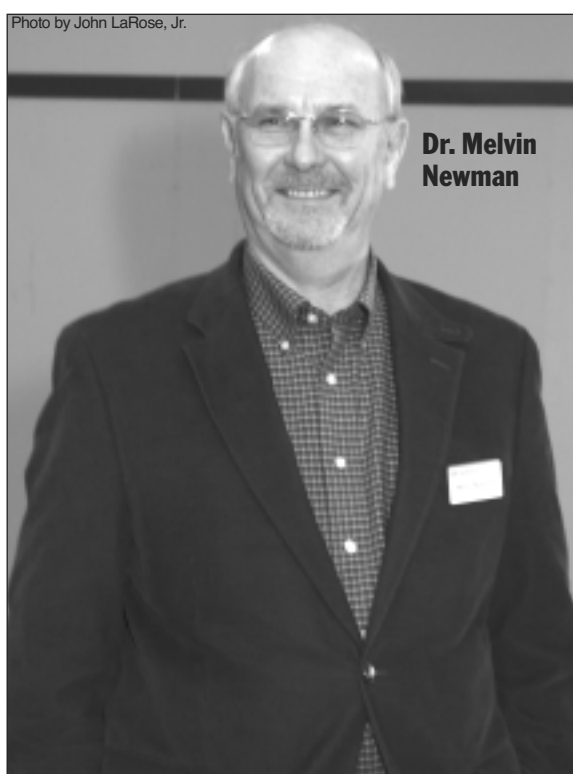
Newman's presentation at the recent Tennessee Grain and Soybean Producers Conference in Dyersburg, Tennessee was titled, Avoiding Yield Losses From Diseases and Nematodes. Newman has been working in this area of research for 35 years in Tennessee. "We have fungicides that we have researched over the years that work real well. Charcoal rot; in really hot, dry seasons is a big problem. Adding irrigation and keeping the soil potash level high will help. Other diseases such as stem canker and sudden death syndrome are almost entirely controlled by resistant varieties. Good rotation techniques always help.

Rotation does not work on sudden death syndrome but on almost everything else rotation is the number one recommendation."

"Fungicide seed treatments, foliar fungicides, resistant varieties, keeping the potash level high, rotating crops, things of this nature go a long way in helping control these diseases," stated Newman.

Newman has six years of soybean disease research data available to growers at www.ut-crops.com. "Producers can go back year by year and look at varieties, look at resistance, look at what foliar fungicides have produced. I

Photo by John LaRose, Jr.



Dr. Melvin Newman



Vein Necrosis Syndrome (VNS)

Photo courtesy of Dr. Melvin Newman

further to prove it."

"We are a little bit worried about spread of this disease and we are going to see about it this coming season," explained Newman.

"It was fairly widespread but it was really prevalent in Gibson County this past season where at least one or two fields were heavily hit and prob-

ably lost some yield," according to Newman. Newman highly recommend they do that and if they have problems or questions they can either ask me or their county Extension agent. Each and every county agent across the state receives training on disease control.

"The first contact is your county agent," stated Newman. Δ



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