

# Curbing Nematode Damage

*Specialists Target Corn Nematodes, Offer Latest Control Methods*



**With tillage not helping in the management of nematodes, Dr. Allen Wrather, University of Missouri Delta Center Plant Pathologist explains nematodes, their presence and how to control their damage in crops.**

Photo by John LaRose, Jr.

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MidAmerica Farmer Grower

**JACKSON, MO.**

**C**orn nematodes, ways to determine their presence and how to control damage to the crop was discussed recently by Dr. Allen Wrather, University of Missouri Delta Center Plant Pathologist.

“Nematodes are damaging corn in some Southeast Missouri fields,” Wrather said. “Corn damaging nematodes prefer sandy or sandy loam soils. Corn yields can be reduced by nematodes by 40 bu/a or more.”

Three nematodes are causing the majority of the problem in Missouri: lance nematode, stubby root nematode and root-knot nematode.

Contrary to popular belief, tillage does not help manage the nematodes. There are no resistant varieties, and crop rotation helps very little. The only reliable option is to use nematicides.

“Currently there are three nematicides on the market for protecting corn against these pests,” he reported. “They are Counter, Avicta, and Telone. Bayer Company is developing a seed treatment product, but it’s not yet available.”

Avicta is a corn seed treatment product, Counter is a granular, applied in furrow at planting and Telone is knifed into the soil as the field is being tilled.

“The only reliable way to diagnose the presence of corn nematodes is to analyze the soil for nematodes sometime between the first of June and harvest,” Wrather said. “The nematode eggs cannot be removed from the soil because they are too small. We must wait until the soil warms and the eggs begin to hatch.

“We can get the young nematodes that have recently hatched out of the soil and examine them using a microscope to determine which nematodes are present,” he added.

What’s important is it’s useless to try to examine the soil before late May or early June,

since the nematodes will not hatch before that time when the soil has warmed.

Instructions for collecting soil samples for nematodes and submitting them for analysis are available at <http://cornplantlab.missouri.edu/nematode/>.

#### **Illinois Conditions Similar**

At the recent Corn & Soybean Classic held in Illinois, Dr. Terry Niblack, professor in the Department of Crop Sciences, University of Illinois, presented new information on the distribution and management of corn nematodes in Illinois.

“Every corn field in Illinois has corn-parasitic nematodes,” she said. “Thanks to a survey conducted in 2008-2009, we now know that only about 30 percent of the fields are under a moderate to high risk of yield loss due to nematodes.”

In high-risk fields she suggested farmers should consider some of the new products available for corn nematode management. With several years worth of data on these products, she covered the highlights during her presentation.

The most damaging corn nematode species prevalent in Illinois is lesion nematode, she said. While stubby root and root knot nematodes are frequently seen in southern Illinois, cold winters seem to hamper the survival of root knot nematode in the northern part of the state. However, stubby root is less sensitive to the cold.

“Lance nematode is a big problem in Illinois,” she said. “The reason lance nematode is so damaging is it feeds from the inside of the roots. We do have lance nematodes, the same as in Missouri.”

Yet, the most damaging nematode in Illinois is called lesion nematode.

“It does the same thing that lance nematode does; it goes inside the root and feeds on the cells, killing them.”

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