Detecting Soybean Cyst Nematodes in the Red River Valley 2009

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Purpose of Study:
Determine spread of SCN into counties in northern soybean production areas where the disease has either just recently been detected or remains undetected.

Results:
A total of 43 soil samples were collected from nine counties (Norman, Clay, Clearwater, Kittson, Mahnomen, Norman, Otter Tail, Polk, and Red Lake), and 36 samples have been processed for egg counts. Among the 36 samples, 19 samples were negative of SCN infestation, eight samples contained more than 1000 eggs/100 cm³ soil, one sample contained low egg number (213 eggs/100 cm soil), and eight samples had only a few eggs (13-38 eggs/100 cm³ soil). The low egg counts are likely contamination or the eggs of other nematodes.

The soil samples will be processed for SCN juvenile counts to confirm the SCN infestation. In addition, greenhouse bioassay will be set up this month to confirm the SCN identity. The morphology of females and juveniles in one sample from Red Lake County, and two samples from Norman County were examined, and females (cysts) were observed on soybean roots in the fields.

Based on the morphology and parasitism of soybean by the nematodes, the nematodes were identified as the soybean cyst nematode. The two counties were new counties with confirmed SCN infestation in Minnesota (Fig. 1). A report of new SCN-infested counties has been submitted to MDA.

Red Lake and Norman Counties added as new SCN-infested counties in 2009 with MDA.

Source: 2009 On-Farm Cropping Trials Northwest and West Central Minnesota U of MN Extension, published January 2010