

Ten Keys for Higher Sugarbeet Quality (Tip #7)

Managing sugarbeet cyst nematodes is one of the ten key components to improve sugarbeet quality and yield.

Steven Poindexter, Senior Sugarbeet Extension Educator, MSU Extension
Poindex2@msu.edu; Cell 989-798-5848

In a random field survey conducted by Michigan State University Extension in 2007, sugarbeet cyst nematodes (SBCN) were detected in 22 percent of the fields sampled. In a more recent survey conducted by Michigan Sugar Company in 2012, the results were very similar with 24 percent of the samples testing positive for SBCN. Research has shown heavy infestations can reduce yields by as much as 15 tons per acre and 2.2 percent in sucrose. Moderate nematode pressure has shown an average loss of 3.3 tons per acre and over one half percent in sucrose. Low populations can affect yield with no visual symptoms.

SBCN populations can be reduced by lengthening the sugarbeet rotation to four or more years, planting Defender oil seed radish as a trap crop and utilizing tolerant varieties. There are many oil seed radish varieties that are promoted as tillage radishes. These radishes are actually susceptible to SBCN and will increase the population. Select the correct variety. Be aware nematodes are transported anyway soil is moved from one field to another. Returning tare soil from sugarbeets to fields at harvest is a very common means of spreading this pest.

Every growing sugarbeet field should be examined and tested for SBCN in August or September. This appears to be the most accurate method of detection. SBCN will be found on the hair roots. The cyst will be white to dark yellow and about the size of a pin head. Make sure plants are dug-up rather than pulled-up to keep as many hair roots as possible intact for examination. If taking a nematode soil sample, be sure to include hair roots in the sample. Soil samples should contain 20 or more soil probes. Michigan Sugar Company offers a free nematode testing program for sampling in the late summer. Growers should contact their Agriculturist for more information. Sugarbeet revenue per acre can be increased by simply knowing what fields have nematodes and implementing an effective management program.