

EXAMPLES OF HG TYPE TESTING

Example 1

A farmer in East River, Iowa, does not know if he has SCN. He submits a soil sample and requests an HG Type test. In this case, we don't recommend an HG Type test. It's more important for this farmer to get an egg or cyst count (a much less expensive test) and plan a rotation that includes resistant varieties.

He should also be aware that growing the same resistant variety year after year will increase his chances of selecting a harder-to-control SCN population in his field.

Example 2

A farmer from Minier, Illinois, has been seeing sub-par performance of his SCN-resistant varieties. He submits a soil sample from an SCN-infested field for HG Type testing.

To determine the HG Type, we put the nematodes from this particular field on replicate plants of the HG Type indicator hosts plus replicate plants of the standard susceptible variety, Lee 74, in the greenhouse under controlled conditions. After 30 days, we count the numbers of females on all the soybean roots, and record the averages as follows:

Soybean line	Number of females
Lee 74 (susceptible check)	250
Peking (line #1)	17
PI 88788 (line #2)	73
PI 90763 (line #3)	3
PI 437654 (line #4)	19
PI 209332 (line #5)	9
PI 89772 (line #6)	16
Cloud (line #7)	28

Since the average number of females on Lee 74 was 250, and 10% of that number is considered high enough to be called "elevated," any of the host indicator lines with more than 25 females would be given a "✓" designation. We conclude that the field is infested with an HG Type 2.7 SCN population.

What does this mean for the grower? The grower should consider growing an SCN-resistant soybean variety that obtained its SCN resistance from a source other than PI 88788 or Cloud.

It is likely that a variety with resistance derived from Peking or PI 209332, for example, would suppress reproduction of the SCN population in that particular field better than a variety with resistance from PI 88788 or Cloud.

Example 3

If the same SCN population as above exhibited elevated reproduction on Peking, PI 88788, and Cloud, the SCN population would be HG Type 1.2.7 and the grower should try to not grow an SCN-resistant variety that obtained its SCN resistance from Peking, PI 88788, or Cloud.

About HG Type testing»
Where can I get a SCN HG Type test performed?»

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SCN females - Photo: Terry Niblack, Ohio State University



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