

4-2008

Soybean Cyst Nematode (SCN) Management Recommendations

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Recommended Citation

Tylka, Gregory L., "Soybean Cyst Nematode (SCN) Management Recommendations" (2008). *Extension and Outreach Publications*. 224.

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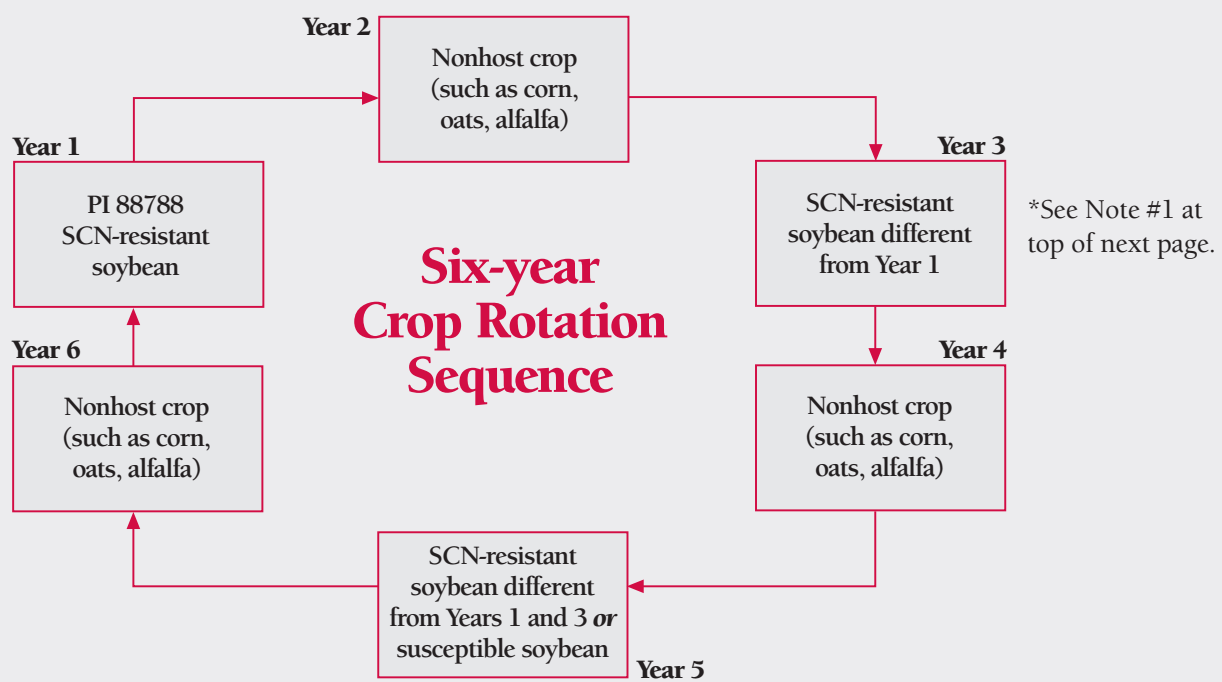
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Iowa State University Plant and Insect Diagnostic Clinic

Soybean Cyst Nematode (SCN) Management Recommendations

Infestation category	Soybean not next crop to be grown	Soybean next crop to be grown	Management recommendation
No SCN eggs detected	0	0	No management strategies are necessary. However, not finding SCN in a soil sample does not prove that it is not present in the field. Follow-up sampling is recommended to check for SCN infestations in future years.
Low*	1–4,000	1–2,000	If this is first discovery of SCN, follow rotation described below starting with Year 1 the next time soybeans are to be grown. If Years 1–4 of rotation described below already have been completed, continue with Year 5 of the rotation.
Moderate*	4,001–16,000	2,001–12,000	Begin Year 1 of rotation described below the next time soybeans are to be grown.
High*	> 16,000	> 12,000	Grow several years of a nonhost crop and sample field again every fall to monitor decrease in SCN population densities.

***Note:** Egg counts are reported as eggs per 100 cm³ (about ½ cup) of soil and are only **estimations** of actual SCN population densities.



*See Note #2 at top of next page.

Note #1: What should you do if you cannot find any SCN-resistant soybean varieties with a source of resistance other than PI 88788? If an SCN-resistant soybean variety with resistance from a source other than PI 88788 is not available for use in Year 3, grow a soybean variety with SCN resistance derived from PI 88788 that is different from the one that was grown in Year 1. Grow the exact same PI 88788 SCN-resistant soybean variety in Years 1 and 3 only if no other SCN-resistant soybean varieties with PI 88788 or other sources of resistance are available.

Note #2: What determines whether a resistant or a susceptible soybean variety should be grown in Year 5? Almost all SCN-resistant soybean varieties available to Iowa growers have the PI 88788 SCN resistance (“PI” stands for plant introduction). Because SCN-resistant varieties allow low levels of reproduction, SCN populations can become “resistant to the resistance” as resistant varieties are repeatedly grown, especially if only one source of resistance is used. Growers concerned about this possibility can prolong the effectiveness of a single source of SCN resistance by growing a susceptible (nonresistant) variety when SCN numbers are low. However, SCN causes much greater damage and seems to reproduce at a greater rate in hot, dry growing seasons than in years with adequate to excess rainfall. So if a severe drought is anticipated, growers might opt not to grow an SCN-susceptible variety in an SCN-infested field, even if SCN population densities are low.

SCN Publications Available from Iowa State University Extension

Title	Description	Publication no.
<i>Soybean Cyst Nematode</i>	Describes the biology and management of SCN (with color photographs)	PM 879
<i>Soybean Cyst Nematode Resistant Soybean Varieties for Iowa</i>	Annually updated list of soybean varieties in maturity groups 0, 1, 2, and 3 with resistance to SCN	PM 1649
<i>Plant Nematode Sample Submission Form</i>	Use for submitting SCN soil samples to the ISU Plant and Insect Diagnostic Clinic (also has sampling guidelines)	PD 32
<i>Evaluation of Soybean Varieties Resistant to Soybean Cyst Nematode in Iowa</i>	Annually updated report of the ISU SCN-resistant soybean variety trial program	IPM 52
<i>Interpreting SCN Soil Sample Results</i>	Explains various details to consider when interpreting results of soil tests for SCN	IPM 61

Single copies of these publications are available for free from the ISU Extension Distribution Center, 119 Printing and Publications Building, Iowa State University, Ames, IA 50011-3171; telephone: (515) 294-5247; fax: (515) 294-2945; e-mail: pubdist@iastate.edu; or online at www.extension.iastate.edu/store and www.soybeancyst.info.

For additional information and answers to questions about soybean cyst nematode biology and management, contact the ISU Department of Plant Pathology at (515) 294-1741.

File: Pest Management 2-5

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Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Jack M. Payne, director, Cooperative Extension Service, Iowa State University of Science and Technology, Ames, Iowa.