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Hundreds of SCN-resistant Soybean Varieties Available for 2014

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Abstract
The soybean cyst nematode (SCN) is a serious yield-reducing pathogen of soybeans. It is present in many fields throughout the Midwest, wherever soybeans are grown.

To produce profitable soybean yields in fields infested with SCN, farmers should grow SCN-resistant soybean varieties. SCN-resistant soybeans can produce high yields while keeping SCN population densities from increasing.

Keywords
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Hundreds of SCN-resistant Soybean Varieties Available for 2014

By Greg Tylka, Department of Plant Pathology and Microbiology

The soybean cyst nematode (SCN) is a serious yield-reducing pathogen of soybeans. It is present in many fields throughout the Midwest, wherever soybeans are grown.

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Lots of choices

To help Iowa soybean farmers sort through the hundreds of SCN-resistant varieties from which to pick, Iowa State University annually compiles a list of the varieties in maturity groups 0, 1, 2 and 3. The publication is financed by soybean checkoff funds through a grant from the Iowa Soybean Association.

The list of SCN-resistant soybean varieties has recently been updated and is now available for farmers making seed purchase decisions for 2014. The list of SCN-resistant soybean varieties for 2014 is available in PDF format online at the Iowa Soybean Association Production Research website and from the Iowa State University Extension and Outreach Online Store.

The updated list contains information on 673 varieties offered by 33 companies and two universities. Most of the soybean varieties (all but 19) contain resistance from the PI88788 breeding line (also called the source of resistance). A majority of the varieties are resistant to glyphosate. Many of the varieties are LibertyLink® varieties, and several have no herbicide resistance.

Fewer varieties than in past years

There were 773 SCN-resistant soybean varieties in the 2012 publication, 100 more than in the recently updated list, from 41 different companies, eight more than in 2012. The number of SCN-resistant soybean varieties available for Iowa farmers has continually decreased since 2010, primarily due to a decrease in the number of seed companies selling soybean seed in Iowa.

The number of SCN-resistant varieties with the Peking source of resistance has stayed relatively the same since 2010; there are 14 varieties with Peking resistance in the updated list and five varieties with combinations of sources of resistance not including PI88788.
Not all SCN-resistant varieties are created equal

Several genes provide resistance to SCN in soybeans for each of the sources of resistance (PI88788, Peking, etc.). And not every soybean variety described as resistant to SCN necessarily possesses all of the resistance genes. Therefore, SCN-resistant soybean varieties can vary greatly in the amount for nematode resistance they possess, as well as in their agronomic performance.

Iowa State University annually evaluates SCN-resistant soybean varieties in experiments conducted at multiple locations throughout Iowa. Each variety is studied in replicated plots to determine how well the variety yields and how well it controls the nematode pest in the soil. The work is supported financially by a grant from the Iowa Soybean Association. The results of the 2013 experiments will be finalized in December 2013 and made available at www.isuscntrials.info as well as in printed reports.

More information on SCN

Iowa State University’s management recommendations for SCN are online in a downloadable format, Soybean Cyst Nematode (SCN) Management Recommendations, IPM 63. For more information about the biology and management of SCN, visit www.soybeancyst.info and www.planthealth.info/scn_basics.htm.

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