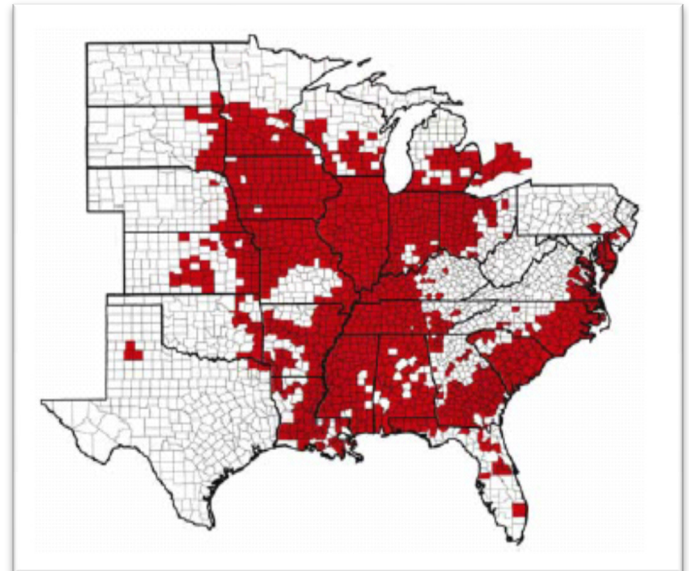


SCN Best Management Practices

- Plant SCN-resistant soybean varieties
- Rotate host and non-host plants
 - Maintain soil fertility
 - Prevent/reduce pest pressure (weed, insect, disease)
- Sanitation

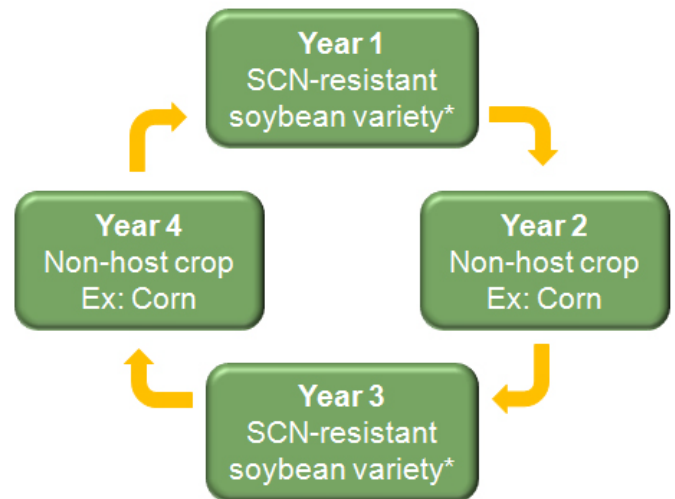


SCN distribution in the U.S.

Non-host crop plants*	Host crop plants*
<ul style="list-style-type: none"> • Alfalfa • Barley • Canola • Clover (red, white, ladino) • Corn • Oats • Rye • Sorghum • Wheat 	<ul style="list-style-type: none"> • Soybeans • Beans (green, snap, mung, bush) • Adzuki beans • Birdsfoot trefoil • Cowpeas • Clover (alsike, crimson, scarlet) • Garden peas • Lespedeza • Sweetclover • White lupines • Vetch (common, hairy)

*Some plants may be considered “poor” hosts and thus be found listed as host or non-host according to various sources.

Example Midwest rotation.



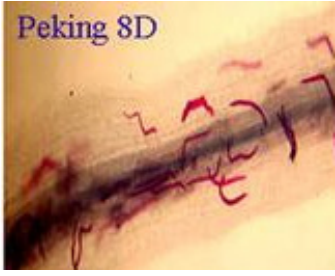
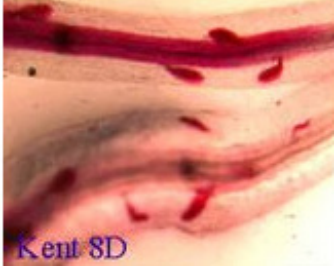


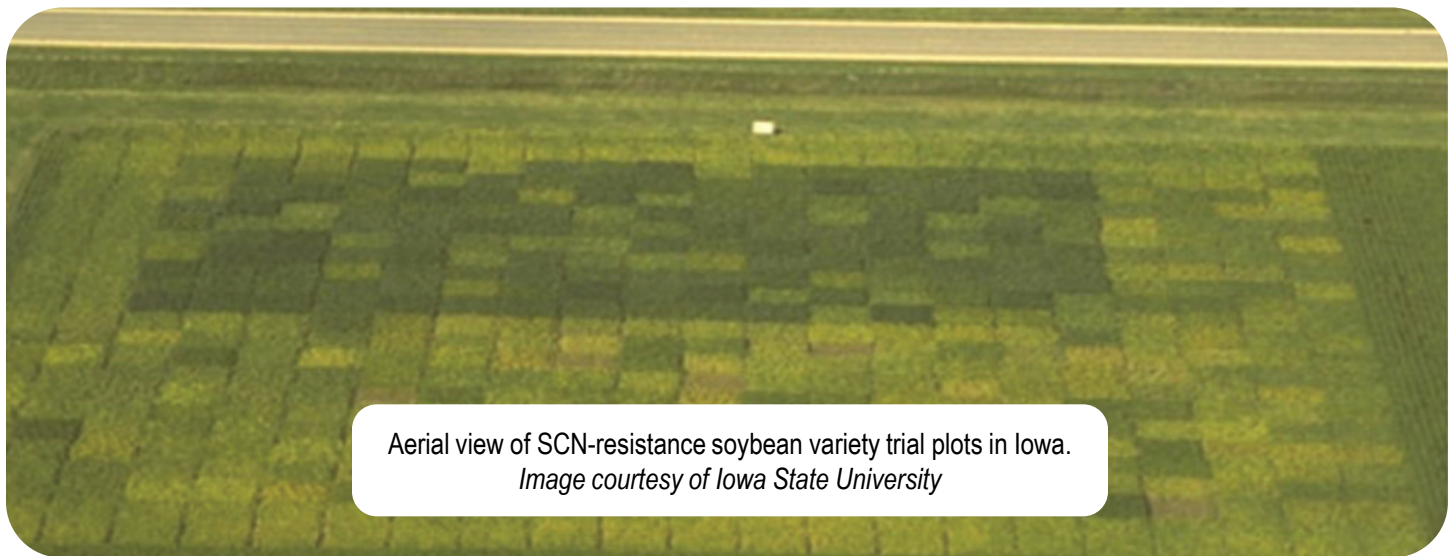
* Source of Year 1 and Year 3 SCN resistance should be from different source lines. If this is not possible, the minimum strategy is different soybean varieties.



Development of SCN on resistant and susceptible soybean varieties

Two varieties of soybean were inoculated with SCN J2 juveniles, Peking is an SCN-resistant variety and Kent is susceptible. *Images courtesy B. Matthews, USDA*

<p>48 hours After 48 hours, J2 nematodes have successfully penetrated the roots of both soybean varieties</p>	<p style="text-align: center;">SCN-resistant</p>  <p style="text-align: center;">Peking 48h</p>	<p style="text-align: center;">SCN-susceptible</p>  <p style="text-align: center;">Kent 48h</p>
<p>192 hours After 192 hours, nematodes on the susceptible variety (Kent) continue to grow, yet those on the resistant variety (Peking) appear to be dead or dying from lack of nutrition.</p>	<p style="text-align: center;">SCN-resistant</p>  <p style="text-align: center;">Peking 8D</p>	<p style="text-align: center;">SCN-susceptible</p>  <p style="text-align: center;">Kent 8D</p>



SCN – resistant Soybean Variety Trials (Central Iowa – 2008)

	Yield SCN-infested field* (bu/A)		Yield Min-Max range (bu/A)		Final SCN density (eggs/100cc soil)	
	Resistant	Susceptible	Resistant	Susceptible	Resistant	Susceptible
Nevada, IA	52.6	48.1	44.7 – 58.6	42.1 – 51.6	2,117	3,538

*Initial SCN population density ~ 2,098 eggs per 100cc soil, HG-Type 1.2.5.6.7