Two Novel Soybean Cyst Nematode and Brown Stem Rot Resistant Soybean Lines

WARF: P07305US

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in two soybean lines that are resistant to brown stem rot and the soybean cyst nematode.

Overview

Brown stem rot and the soybean cyst nematode are two major afflictions that affect soybeans. The fungus responsible for brown stem rot infects the roots of the plant and then moves to the stem, causing it to rot. Yield losses of 10 to 30 percent are common following infection.

The soybean cyst nematode is a small, parasitic round worm that attacks the roots of soybeans. This nematode can be transferred from plant to plant or through infected soil and is almost impossible to eradicate.

The Invention

UW-Madison researchers have developed two soybean lines that are resistant to brown stem rot and the soybean cyst nematode. The new lines were developed by crossing several soybean lines, challenging them with disease and then selecting for resistance. Each line is more resistant to the soybean cyst nematode than varieties derived from PI 88788, the most common source of soybean cyst nematode resistance in cultivars adapted to the upper Midwest, and also shows better resistance to brown stem rot than currently available lines.

Applications

- Disease- and pathogen-resistant soybeans

Key Benefits

- More resistant to brown stem rot and the soybean cyst nematode than commercially available soybean lines
- Yield and other desirable agronomic characteristics are comparable to commercially available lines

Tech Fields

- Animals, Agriculture & Food : Plant varieties

For current licensing status, please contact Emily Bauer at emily@warf.org or 608-960-9842

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