

Characterization of *P. sojae* and *P. sansameana*

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Overview of project objectives

Phytophthora sojae root and stem rot is present in many fields across the North Central region and Ontario, Canada, and had been managed successfully with the deployment of single resistance Rps genes. However, an increasing number of reports indicate that varieties with Rps genes are sold that are no longer effective.

Findings from a 2013 study indicate that a more thorough assessment of the *P. sojae* populations in the North Central region is needed. State populations of *P. sansomeana* will also be examined for host range, resistance in current soybean cultivars and efficacy of seed treatment fungicides.

Key results

After collecting and analyzing soil samples from nine states, multiple *P. sojae* isolates were recovered and some pathotyping has begun. The high number of locations in the survey provide current knowledge of the level of virulence against certain Rps genes, which is valuable in determining which Rps genes should be used to maintain effective levels of resistance.

Benefit to farmers

Keeping up to date on how to ensure *P. sojae* root and stem rot is managed successfully will improve profitability of the North Central region soybean farmer. Improving plant health and reducing the incidences of disease will only improve plant health and yield.

Links

[Characterization of *Phytophthora sojae* and *Phytophthora sansameana* populations in the North Central region and in assessment of management strategies](#) USB National Soybean Checkoff Research Database