



Pythium Root Rot

Written by: Madeline Henrickson and Dr. Alyssa K. Betts

October 2025

Pest Background

- Caused by many species of the oomycete pathogen *Pythium*.
- *Pythium* species are favored by periods of extended soil wetness.
- *Pythium* species differ in optimal temperatures for growth and can have varying responses to fungicides.
- To date, over 15 species have been identified in the Mid-Atlantic region, with *Pythium graminicola* being the most common.



Fig 1: Comparison of corn hypocotyls healthy (left) vs infected (right). Photo by M. Henrickson

Identification

- Symptoms of *Pythium* Root Rot can include stunted, slower growing plants, to severely infected, dead plants that die after emergence (Fig 2).
- Infected plants typically have brown, rotted roots and mesocotyl (Fig 1 and 3).
- Stand reduction is typically seen in low-lying, wet regions of the field.
- Plants that are infected early generally maintain reduced root systems throughout the season, with poorly formed ears.



*Fig 2: Aboveground symptoms of infection by *Pythium* (right). Photo by M. Henrickson*



Fig 3 : Developing corn root system infected by Pythium. Photo by Dr. Alyssa Betts

Management

- Seed treatments with activity against oomycetes can provide protection for approximately 14 -21 days.
- Limit water usage early in the season to avoid saturated field conditions.

References

Bickel, J. T., & Betts, A. M. (2021). Review of pythium species causing damping-off in corn. *Plant Health Progress*, 22(3), 219-225.
doi:10.1094/PHP-02-21-0046-FI

Authors: Madeline Henrickson and Dr. Alyssa Betts

This information is brought to you by the University of Delaware Cooperative Extension, a service of the UD College of Agriculture and Natural Resources — a land-grant institution. This institution is an equal opportunity provider.