

Soybeans

White Mold Management

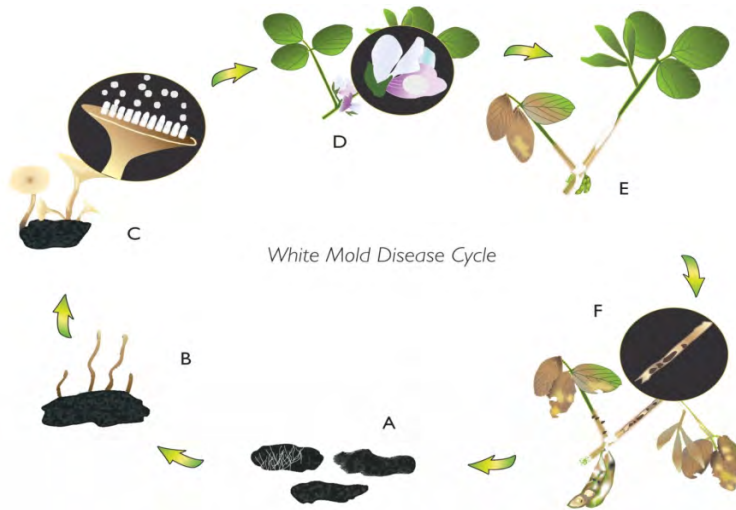
Did you know?

The following can contribute to white mold presence in your field:

- Short rotations every 2 – 3 years
- Rotation with potato, canola, or pulses in fields with history of soybean white mold
- Fall tillage incorporates mold spores that can survive for years
- Cool, moist conditions at flowering

Management Tools

- Extend rotations to 4 years between soybeans
- Add grasses into rotation
- Avoid over seeding; ideal seeding between 140,000 – 160,000 seeds/ac
- Pay attention to disease forecasting to effectively time fungicide application
- Sanitize equipment and plant disease resistant varieties



- (A) White mold fungus survives in soil for many years as hard, black structures.
- (B) The structures germinate in the top 2 inches of soil when conditions are moist and cool to produce mushrooms.
- (C– D) Mushrooms produce airborne spores that colonize soybean flowers.
- (E – F) Infection spreads into the stem allowing for continued spore production, browning of the plant stem and leaves, and finally dispersal of the fungus back to the soil.

From "Soybean Diseases: White Mold," image by Crop Protection Network and information by D.J. Jardine, 2020. Copyright 2023 Soybean Research & Information Network – SRIN.

Trials

Recommendations

Fungicide Timing

- Question: Is there a yield advantage to applying fungicide? What is the best application time?
- Goal: Improve best management strategy for white mold.

- Applying fungicide does not increase yield if there is no white mold present.
 - Only apply fungicide if field has a history or disease forecast is high for white mold.
- Potential to reduce white mold with fungicide applied at first flower (R1) and at full flower (R2).
- Double application (R1 & R2) can also increase yield when white mold is present, giving an 32%* return on investment (ROI).

★ Highest ROI of 70%* shown with one fungicide application at first flower.

*ROI is dependent on the cost of fungicide.

