

White Mold - IPM Guideline for Common Bean (dry, snap, fresh market, seed)

Note: this guideline may be applicable to other legume crops including:

Cool Season (chickpea, lentil, field pea)

Warm Season (cowpea, lima bean, soybean)

Disease Diagnostic Confirmation

Work with local crop consultants, field specialists and disease diagnosticians to confirm identity of disease causes. Provide background information on the field and problem, and deliver representative samples (including healthy appearing to badly affected tissue and plants) to qualified experts for diagnosis and confirmation. <http://wiki.bugwood.org/PIPE:Legume>

Vegetative Growth Stages

Current data indicate that fungicide applications are not recommended in the early vegetative growth stages for white mold control.

Reproductive Growth Stages

White mold fungicides should be applied during flowering (50% to 100% bloom or R1 – R2) to protect blossoms prior to senescence and colonization by the fungus if present in a field with a history of the disease. Late applications (e.g., after R4) are not recommended.

- Rotate to exclude susceptible host crops (i.e., sunflower, soybean, chickpea, lentil, canola, camelina, pea) for 3 + years; examples of non-host crops include small grains and corn
- avoid planting in fields with a history of disease during the last 3 - 5 years
- plant resistant or less susceptible varieties if available
- follow recommended plant population - row & plant spacing
- soil test and use a moderate fertility program; e.g., not to exceed 75 - 100 lb N/A
- incorporate fall and/or spring tillage to eliminate carryover seed and volunteer beans in last year's bean fields, promote root health and moisture drainage in this year's bean fields
- monitor irrigation scheduling to avoid flowering-period deficiency but late-season saturation
- utilize timely scouting, disease forecasting, and weather monitoring services
- when justified, use timely applications of recommended fungicides at first signs of disease; maintain protection throughout flowering and early pod set
- if a susceptible variety is planted in a field with a history of disease and the pathogen and/or disease are confirmed, consider treatment with a labeled fungicide at 50 - 100% Bloom (R1 = every plant has 1 or more open blossoms)
- a second application 7 days later at Full Bloom (= 7 to 10 days after R1) may be beneficial if conditions conducive to white mold continue
- Pesticide Information available at: <http://www.highplainsipm.org/>

[Guideline adapted for Colorado and surrounding region by Dr. H. F. Schwartz, M. S. McMillan, and K. L. Otto]