Cultural Practices Can Play a Key Role in Reducing White Mold Losses in Dry Bean & Other Crops

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Overview on the Potential of Cultural Practices for White Mold IPM

Integrated Pest Management Strategy:
- crop rotation for 3 + years
- avoid planting in fields with a history of disease; soil sample to estimate pathogen potential (sclerotia/kg soil)
- plant resistant or less susceptible cultivars
- recommended plant population - row & plant spacing
- moderate fertility program
- fall/spring tillage to promote root health, moisture drainage
- closely monitor irrigation method and scheduling; rain-fed, furrow, sprinkler, drip
- aggressive IPM scouting, disease forecasting
- timely & thorough application of recommended pesticides

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Integrated Pest Management Strategy:
- crop rotation for 3 + years to reduce sclerotia density and other pest problems

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- avoid planting in fields with a history of disease; soil sample to estimate pathogen potential (sclerotia/kg soil)
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Integrated Pest Management Strategy:
- plant resistant or less susceptible cultivars; consider plant growth habit, plant architecture useful in some regions

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Integrated Pest Management Strategy:
- recommended plant population - row and plant spacing, orientation to prevailing wind

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Integrated Pest Management Strategy:
- moderate fertility program, soil test, split applications

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Integrated Pest Management Strategy:
- fall/spring tillage to promote root health, moisture drainage
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Integrated Pest Management Strategy:
- closely monitor irrigation method and scheduling; do not re-use runoff water; rain-fed, furrow, sprinkler vs drip; avoid late-season application

Integrated Pest Management Strategy:
- aggressive IPM scouting, disease forecasting

BioPesticides
- Induced Systemic Resistance (ISR)
  Actigard (Acibenzolar)
- Bacterial Control Agents
  Erwinia herbicola
  Bacillus polymyxa
- Fungal Control Agents
  Coniothyrium minitans
  Sporidesmium sclerotivorum
  Trichoderma viride
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Conventional Chemistry
- Topsin (Benlate) – Thiophanate Methyl
- PCNB – Blocker (pentachloronitrobenzene)
- Soil Fumigants – methyl bromide

New Chemistry – protective and curative/eradicant activity
- Endura – Boscalid (carboxamide)
- Headline - Pyraclostrobin
- Pristine - Boscalid + Pyraclostrobin
- Omega - Fluazinam

Potential Chemistry
- Fenhexamid (Elevate), Pyridinamine, Phenylpyrrole, Thiazole (carbamamide)

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Section 3 – Federal Fungicide Labels:

Topsin M (thiophanate methyl)
- Dry bean
- Soybean

Endura (Boscalid)
- Dry bean
- Canola
- Pea
- Chickpea (Ascochyta)
- Lentil (Ascochyta)

Quadris (azoxystrobin)
- Canola

Notes:
- Nothing labeled for white mold control in sunflower
- All crops could use Intercept or Contans (Coniothyrium minitans)