White mold (Fresh Vegetables)

White mold is caused by the fungus, *Sclerotinia sclerotiorum*, and has the potential to cause substantial losses in fresh vegetables.

*Sclerotia* are the black resting bodies of the fungus which are produced on diseased plants. These are returned to the soil forming inoculum for future crops.

**Symptoms**

**Beans:** White mold causes reductions in the number of harvestable pods and seeds (Fig. 1).

**Tomatoes:** Stem infections can cause losses from lodging and collapse of the canopy (Fig. 2).

**Cabbages:** Entire plants can be lost from infection of the wrapper leaves which progresses inwards affecting the head (Fig. 3).
Why is White Mold a Problem?

- White mold affects a wide range of crops in a vegetable rotation.
- Sclerotia survive in the soil for 15 to 20 years.
- Only a small number of apothecia are needed to cause disease!
- Resistant varieties are not available.
- Growth attributes that are associated with high yields (e.g. canopy closure in beans) promote conditions which are highly conducive for infection and disease.
Management

Proactive Planning!
Inoculum comes from the sclerotia in the soil within the field. Spread of the fungus between neighboring fields is generally not significant. Seed is not a source of Sclerotinia sclerotiorum inoculum. When establishing a crop, consider these factors to reduce disease risk, especially if the field has a history of white mold:

- **Rotate with** nonhost crops (e.g. corn and grain) where possible (4 to 5 years is preferred);
- **Plan** row direction (E-W) and spacing to promote wind flow through the canopy;
- **Optimize** weed management;
- **Minimize** inversion of the soil for sclerotial degradation; and
- **Do not over-supply nitrogen** which promotes canopy growth.

After Crop Management
In fields with severe disease (or areas within fields), consider the use of Contans® (Coniothyrium mimitans), registered for fresh vegetables and organic production.

Optimize control by:
- Minimize soil disturbance after harvest and apply to debris;
- Apply at planting with shallow incorporation and moisture/irrigation.
- Use as part of an integrated strategy.

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