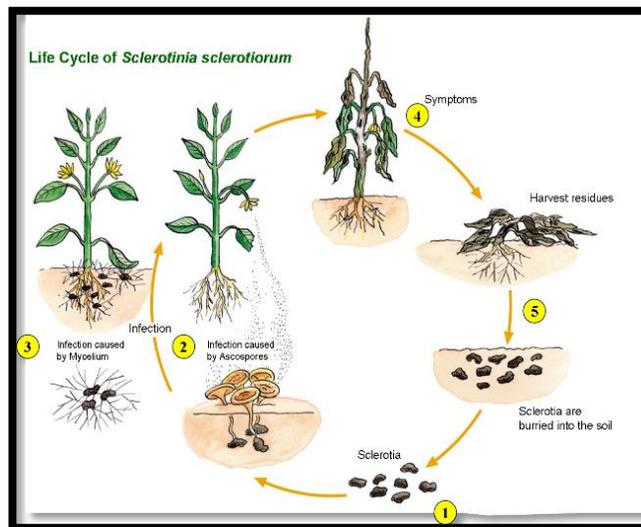


# SCLEROTINIA STEM ROT (WHITE MOLD)

*Sclerotinia sclerotiorum*

## Disease Cycle & Infection

Sclerotinia is a soil borne fungus that primarily infects canola, mustard, lentil and pea crops. The pathogen survives as a black mass of mycelium in the soil (sclerotia). The sclerotia germinate in the spring and produce a small mushroom called apothecia. The sclerotia require moisture for germination and temperatures between 11-15°C for about 10 days. Ascospores are released from the apothecia (in an area up to 150 m from the mushroom) and move with the wind to infect the flowers or dead parts of host plants from June to September.



## Symptoms

- Infection begins as a soft, watery rot on leaves or stems.
- When a lesion completely girdles the main stem, the plant wilts and dies.
- The infected area dries and becomes bleached. Infected plants are most conspicuous when a crop is fully podded
- Diseased plants ripen prematurely and contrast with adjacent healthy green plants.
- Diseased plants may remain more erect than healthy plants, which lodge from the weight of filling pods
- The pathogen forms hard black sclerotia (resting bodies) in the hollow center of diseased stems. During harvest diseased tissue shreds and releases the sclerotia.

## Control & Timing

Extended rotations between susceptible crops can help reduce Sclerotinia pressure, but the sclerotia can easily be viable for 5 years so rotation is often not the most economical answer. Fungicide products such as Proline, Cotegra and Lance are applied starting at 20% bloom in canola. Generally, fungicides targeting sclerotinia are most effective when made at or before 50% flower. Flowering begins with the opening of the lowest bud on the main stem and continues upward with 3-5 more flowers opening per day. Flowering at the base of the first secondary branch begins 2-3 days after the first flower opens on the main stem. Generally, flowering on the main stem will continue for 2-3 weeks and will typically advance in flowering by 10% every 1-2 days. Percent flower can also be staged by counting the number of open flowers (including pods) on the main stem: 10% = 10+ ; 20% = 14-16; 30%= 18-20; 50%= 20+ Colour intensity (degree of yellow in the field) of the crop will increase until maximum intensity of 50% flower. At 60% flower, the colour intensity will begin to lessen.

