Effective and economical management of all diseases requires decisive action prior to symptom development.

Therefore, making accurate assessments of potential disease risk in each field is very important. Better risk assessment will help ensure that fungicides are applied only when the likelihood of a positive economic return is high. Even though most management decisions are made prior to symptom development, scouting for disease symptoms is still important because it helps determine which diseases are present in each field, if they are getting worse, or whether the management tools used were effective. This card can help improve the accuracy of risk assessments through enhanced symptom recognition, better understanding of risk factors and improved identification of spore-producing structures and late-season infections. Accurate identification and long-term record keeping of disease information for each field, including the percent of infection and severity of symptoms, will help growers better predict risk and help evaluate, prioritize and improve disease management programs in their fields.

For more information on appropriate thresholds and managing canola disease, contact your local Canola Council of Canada agronomy specialist, sign up for our Canola Watch e-newsletter at canolacouncil.org, or call toll-free at (866) 834-4378.
Symptoms and conducive conditions:
- Disease symptoms may appear first on leaves as dirty white, round to irregularly-shaped lesions, usually dotted with numerous small, black pycnidia (pepper-like, spore-bearing structures)
- Fungus advances internally from leaf to stem and may form lesions that are white or grey, potentially with a dark border and pycnidia within
- Stem lesions at the base of the plant appear as a dry rot which may contain pycnidia and/or be pinching at the soil surface
- The best method to identify blackleg is to cut a cross-section of the stem at the base of the plant (at the soil surface) and check if it reveals black and brown infected tissue
- Pseudopeziza (black bodies slightly larger than pycnidia) may form on canola residue in the following years
- Warm, wet spring conditions followed by dry conditions at harvest are favourable for the development of this disease, along with the presence of host plants over consecutive years

Symptoms and conducive conditions:
- Warm, wet conditions in infested soils are favourable for this disease, as well as acidic soils, high spore loads and the continual occurrence of susceptible plants
- Conditions that are favourable to the development of this disease include: warm, dense crop canopies; high moisture conditions; and saturated soil in the early and mid-season (especially at bolting and early flowering)

Symptoms and conducive conditions:
- Moist soils, root maggot feeding (which makes the plant more susceptible)
- When pulled from the ground, the plant will frequently break at or just below the soil surface
- Seedlings that emerge may initially appear healthy, but their roots may decay soon after, or the hypocotyl can become constricted and wirey (wirestem disease)
- These sclerotia may also occur on the surface of infected stems under moist conditions
- Conditions that are favourable to the development of this disease include factors that contribute to slow emergence, such as dry, wet or cold conditions and the continual occurrence of susceptible plants

Symptoms and conducive conditions:
- Pseudothecia (black bodies slightly larger than pycnidia) may form on canola residue in the following years
- Warm, wet spring conditions followed by dry conditions at harvest are favourable for the development of this disease, along with the presence of host plants over consecutive years
- The best method to identify blackleg is to cut a cross-section of the stem at the base of the plant (at the soil surface) and check if it reveals black and brown infected tissue
- Pseudopeziza (black bodies slightly larger than pycnidia) may form on canola residue in the following years
- Warm, wet spring conditions followed by dry conditions at harvest are favourable for the development of this disease, along with the presence of host plants over consecutive years

Symptoms and conducive conditions:
- Faint black (vertical) striping can be seen on the stems which, when rubbed, can appear darker and more obvious. By peeling back the epidermis and outer cortex of the stem, blackening can be seen on the inside of the stem, eventually followed by microsclerotia later in the growing season
- Microsclerotia resemble ground pepper in appearance and remain on the plant stem well into the fall when they are released into the soil once the stems decay
- Symptoms of this disease can be noticed on the leaves and pods but are primarily noticed on the stem and roots and will vary according to plant age and environmental factors
- This disease can have the most impact in hot, dry conditions when the plant is already stressed and can persist when host species such as wild mustard are continually present in fields
- Most conditions early in the growing season followed by hot, dry or stress conditions near maturity are favourable to this disease

Symptoms and conducive conditions:
- Nightlesionsaresoft,wateryandbrownincolour.When dry,theyare brown and papery, crumbling at the touch
- The stems of infected plants eventually bleach, taking on a whitish appearance, and tend to shred and shatter very easily, revealing a white mildly growth and small (less than 2 cm), cylindrical, hard, black resting bodies called sclerotia
- These sclerotia may also occur on the surface of infected stems under moist conditions
- Conditions that are favourable to the development of this disease include: warm, dense crop canopies; high moisture conditions; and saturated soil in the early and mid-season (especially at bolting and early flowering)