

PEST MANAGEMENT

Winter wheat is ecologically different from other crops due to the overwintering dormancy stage that kills off many diseases and weeds, therefore, winter wheat isn't prone to much disease or weed interference. But there are a few specific things to look out for to manage in the early stages.

Diseases

Wheat Streak Mosaic Virus (WSMV)

WSMV causes stunted growth in wheat plants and lower seed production. It is transmitted by the wheat curl mite and by leaf rubbing. Mites can be blown from field to field by the wind and can overwinter on winter wheat. Winter wheat will rarely show symptoms of WSMV until spring. Symptoms become more pronounced when temperatures rise above 10 degrees Celsius in the spring. Dashes, streaks, and yellow stripes will appear on leaves parallel to the veins and will become increasingly mottled until the leaves die. Infected plants have stunted growth from the time the infection took place.

Fusarium Head Blight (FHB)

An FHB infection can be a problem and cause downgrading in winter wheat. Early flowering is the best way to try and escape the prime FHB infection period, so plan on seeding early in September if you are concerned about this disease. It is also a good practice to avoid irrigation at flowering to reduce the risk of FHB.

Rusts

Leaf rust, stem rust, and stripe rust are common diseases for winter wheat. Each appears differently but will produce lesions or pustules on the plant. Resistant cultivars are available and foliar fungicides are effective in treating them.

Leaf Spotting Disease

Leaf spotting diseases can be caused by one or a combination of leaf spotting pathogens causing tan spot on leaves and potentially infecting wheat kernels causing red or pink smudge and black point. Severely infected kernels can result in significant downgrading of seed quality.

Managing leaf spotting diseases starts with the seed: try and ensure you are planting disease-free kernels. Proper tillage, crop rotation practices, and fungicides are also management practices for leaf spotting diseases.

Weeds

Weed control in winter wheat is aided by the crop's fall-growth habit, vigorous spring growth, and early maturity. This benefit not only is of value in the year winter wheat is grown, but is also an important tool for maximizing the effectiveness of other crop protection products in other crop years. For example, avoiding a graminicide during the winter wheat year can help avoid or manage the development of herbicide resistance.

In situations where winter wheat is less competitive, such as late seeding in fall or winter injury, more intensive wheat management may be needed to achieve maximum yields.

More information about winter wheat pest management can be found at www.growwinterwheat.ca.



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Fact Card

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