

SEEDING

There are many important factors that set the stage for a successful winter wheat crop, making seeding a critical time. Follow the guidelines below to get your winter wheat off to a good start. It is also possible to consider seeding into chemfallow if you have a year with excessive moisture and think seeding in the spring might be a challenge.

Seed Early

Seeding early is the most important thing a grower can do to produce a vigorous plant with improved chances of winter survival. Plants that enter winter with greater than three leaves usually have well-developed crowns. The crown is the area at the base of the shoot from which the plant regrows in the spring. Seeding too early, however, could promote excessive growth by winter, which can increase the risk for winter injury. Larger plants may also be at risk of snow mould. Despite these risks, seeding early is preferable to seeding too late.

The optimal seeding window across most of the Prairies is between September 1 and 15. If the crop is to be used for fall grazing it should be seeded by mid August. Seeding past the optimal date is ok and many growers still produce profitable yields.

Seed Shallow

Soil moisture in most stubble fields in the fall has been depleted, leaving a very dry seedbed for winter wheat. Under these conditions, seeding shallow (1/2 to 1 inch) allows the seed to take advantage of moisture provided by fall rains. Research has shown that as little as 1/3 inch of rain is often enough to successfully establish winter wheat that was seeded shallow. Conversely, deep seeding delays emergence and often results in a spindly plant that is more susceptible to winterkill. Research has consistently shown that shallow seeding is much more successful than deep seeding.

Seed Heavy

The proper way to calculate seeding rate is determined using target plants per square foot in conjunction with 1000 kernel weight (TKW) and seedling survival rate. Higher seeding rates create a denser, more uniform stand and are especially important in high moisture areas and are critical to winter survival, crop competitiveness, and yield potential. Ideal target plant stand for winter wheat is 30-35 plants per square foot.

Seeding Into Standing Stubble

Direct seeding into standing stubble is important for winter wheat production. Standing stubble helps to trap snow that insulates crown tissue from cold winter temperatures. Snow cover ensures the soil temperature at the crown (1/2 to 1 inch deep) stays well above killing temperatures, even with air temperatures at -40 degrees Celsius. Optimally for winter survival, stubble needs to hold four inches or more of snow. This amount of snow will prevent soil temperatures from dropping to lethal temperature.

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



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Fact Card

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