

# SPRING WHEAT

TRITICUM AESTIVUM- COOL SEASON ANNUAL GRASS



## PRODUCTION GOALS

Not Effective

Very Effective

Quick Growth	
Lasting Residue	
Soil Builder	
Nitrogen Fixation	n/a
Nitrogen Scavenging	
Erosion Reduction	
Compaction Reduction	
Biofumigation Potential	
Weed Suppression	
Forage Harvest Value	
Grain Harvest Value	

Spring wheat has an upright growth habit and medium depth fibrous root system. It is capable of being used as a cover crop, forage or brought to maturity for grain. Wheat will flower in the same year it is planted. It is an excellent N scavenger with high quality forage potential. Winter and spring wheat are the same species but spring wheat varieties do not require cold exposure for flowering but tend to somewhat less effective in weed suppression

## TOLERANCES

Flood	
Heat	
Drought	
Shade	
Low Fertility	
Salinity	
Optimal pH	5.5 - 8.0

## SOIL DRAINAGE CLASS

Very Well	█
Well	█
Moderately Well	█
Somewhat Poor	█
Poorly	█
Very Poorly	█

## AREA & ADAPTABILITY

Spring wheat is a suitable spring seeded annual for all regions of British Columbia. It is able to tolerate a wide range of conditions making it suitable for many field locations and soil types.

Winter Hardiness - Zone 8-9



## Seeding Considerations

Rate Drilled	Rate Broadcast	Depth	Frost Seeding	Minimum Germination Temperature	Seeds
70-150 lbs/ac (78-168 kg/ha)	77-165 lbs/ac (86-185 kg/ha)	0.75-2 in (2-5 cm)	No	3°C (38°F)	6800 /lb (15,000 /kg)

Spring wheat can be a spring seeded crop, but produces less biomass than oats or barley. It may be seeded in late summer or early fall for nutrient (nitrogen) scavenging, ground cover and/or fall grazing opportunities. Earlier planting dates improve N scavenging ability.

## Management Considerations

There are 9 varietal classes of spring wheat in Western Canada. Many of the commonly available hard red spring genetics have been bred for relatively short straw under grain production, while some of the soft white wheats have improved cover crop characteristics. Understanding what the variety was bred for (e.g. grain vs. silage) should inform selection. Spring wheat can have high forage quality if harvested at a vegetative stage. Cereals can accumulate nitrates after a period of stress (e.g. drought or killing frost) and/or high nitrate levels in the soil and should be tested before feed out.

<b>Inter-seeding Potential</b>	
<b>Volunteer Establishment</b>	
<b>Nitrogen Concentration</b>	0.5 - 5.2%

### Dry Matter Yield

900 - 4000 lbs/acre  
1008 - 4480 kg/ha

## Termination

Spring wheat can be terminated by a killing frost, tillage or a chemical application. Tillage may require several passes. Termination should occur before seeds the reproductive stage to prevent volunteers.

## References

- Cloverdale Soil Conservation Group. 1994. Final Report: Part 2 Reports, Newsletters and Bulletins.
- Elmy, K. 2020. Cover Cropping in Western Canada. Friesen Press.
- Midwest Cover Crop Council. (n.d.)
- Northeast Cover Crop Council. (n.d.)
- Odhiambo, J., Temple, W.D., A. Bomke. 2012. Managing Cover Crops for Conservation Purposes in the Fraser River Delta, British Columbia. In: Crop Management - Cases and Tools for Higher Yield and Sustainability.
- Sustainable Agriculture Research and Education (SARE). 2012. Managing Cover Crops Profitably: 3rd Ed. National Institute of Food and Agriculture, USDA, University of Maryland & University of Vermont.
- U.S. Department of Agriculture. (n.d.). Pacific Northwest Cover Crop Selection Tool.

## Disclaimer

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