

SPRING OATS

AVENA SATIVA - COOL SEASON ANNUAL GRASS



PRODUCTION GOALS

Not Effective Very Effective

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

Spring oats are a relatively inexpensive, rapid growing cool season annual. It is well suited as a spring or fall cover crop alone or in a mixture with other species. Oats grows tall with better tolerance of saturated soils than other spring cereals.

TOLERANCES

Flood	
Heat	
Drought	
Shade	
Low Fertility	
Salinity	n/d
Optimal pH	4.5 - 7.5

SOIL DRAINAGE CLASS

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

AREA & ADAPTABILITY

Spring oats are 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 -
Does not overwinter

Seeding Considerations

Rate Drilled	Rate Broadcast	Depth	Frost Seeding	Minimum Germination Temperature	Seeds #
50-110 lbs/ac (56-124 kg/ha)	110-140 lbs/ac (124-156 kg/ha)	0.5-1.5 in (1-4 cm)	No	3°C (38°F)	5400 /lb (12,000 /kg)


In warm areas of the province, oats should be seeded early spring or late summer. It can also be used as a summer seeded cover crop where cool conditions prevail.

Management Considerations

Oats can be very competitive and have a wider range of tolerances than other spring cereals.

Forage specific varieties of oats are available, these varieties are often taller, leafier and bred for more biomass. 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.

Inter-seeding Potential 

Volunteer Establishment 

Nitrogen Concentration 0.6 - 0.9%

Dry Matter Yield

2000 - 10,000 lbs/acre

2240 - 11,200 kg/ha

Termination

Oats can be terminated by a killing frost, tillage or a chemical application. Termination should occur before seeds reach the reproductive stage to prevent volunteers.

References

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- Sullivan, D.M., Andrews, N. and L.J. Brewer. 2020. Estimate Plant-Available Nitrogen Release from Cover Crops. Pacific Northwest Extension Publishing 636.
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Disclaimer

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