WHITE CLOVER

TRIFOLIUM REPENS- COOL SEASON PERENNIAL LEGUME

PRODUCTION GOALS

Not Effective — Very Effective

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

White clover has an upright growth habit. Seedlings have a taproot but as the plant matures fibrous roots develop from detached stolons. White clover does best on heavy soils with little drought stress. White clover can be used as a living mulch due to its high tolerance for traffic. It tends to spread into adjacent plant rows and does not die off easily when dug under on some soils.

TOLERANCES

Flood	▮▮▮▯▯
Heat	▮▮▮▮▯
Drought	▮▮▮▯▯
Shade	▮▮▮▮▯
Low Fertility	▮▮▮▯▯
Salinity	▮▮▯▯▯
Optimal pH	6.0 - 7.0

SOIL DRAINAGE CLASS

Very Well	▯
Well	▮
Moderately Well	▮
Somewhat Poor	▮
Poorly	▯
Very Poorly	▯

AREA & ADAPTABILITY

White clover is winter hardy and is suitable across British Columbia. White clover can tolerate poor conditions better than other clovers and can withstand heavy traffic.

Winter Hardiness Zone - 4-9

Seeding Considerations

Rate Drilled	Rate Broadcast	Depth	Frost Seeding	Minimum Germination Temperature	Seeds #
3-14 lbs/ac (4-16 kg/ha)	4-17 lbs/ac (5-19 kg/ha)	0.25-0.5 in (0.5-1 cm)	Yes	4°C (40°F)	226,000 /lb (500,000 /kg)

A clover stand will survive 3-4 years. It is slower growing but very vigorous once established.

Management Considerations

White clover works great as a living mulch crop and a ground cover for inter-row areas and to compete with weeds. White clover also has better tolerances than the other clovers and is relatively easy to establish. White clover is very aggressive once established.

Red Clover is a legume and can cause bloat in ruminants. Producers should be aware of this and manage grazing accordingly. For example, avoid grazing in wet or damp conditions.

Inter-seeding Potential ▮▮▮▯▯

Volunteer Establishment ▮▮▮▮▮

Nitrogen Concentration 2.2 - 5.1%

Dry Matter Yield
2000 - 6000 lbs/acre
2240 - 6720 kg/ha

Nitrogen Contribution
80 - 200 lbs/acre
89.6 - 224 kg/ha

Termination

White clover may be terminated through tillage, although it will require multiple passes, or an herbicide application. Termination should occur at the late bud stage to maximize plant available nitrogen.

References

- Dobb, A., S. Burton. 2013. Rangeland Seeding Manual for British Columbia. B.C. Min. Agri., Sust. Agri. Mgmt. Br., Abbotsford, B.C.
- Elmy, K. 2020. Cover Cropping in Western Canada. Friesen Press.
- Midwest Cover Crop Council. (n.d.)
- Northeast Cover Crop Council. (n.d.)
- Pavek, P. and D.M. Granatstein. 2016. Legume cover in orchard drive alleys final report. No. 12864. USDA-NRCS Plant Materials Center, Pullman, WA.
- 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.

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