PLANT HARDINESS ZONE 6 DATASET

COVER CROP DESCRIPTION

Short-lived upright perennial, often lasts two years. Often grown for hay. Best on good soils with high fertility; tolerates some wetness. Establishes readily, including when frost-seeded, shade tolerant, very winter-hardy, inexpensive. Resists some problem nematodes, good taproot. Moderate to excellent N fixation depending on planting timing. Excellent forage, blooms for pollinators. For fall-seeding, use multi-cut medium or one-cut mammoth varieties. Multi-cut "medium" types best for spring planting. Avoid seed set by harvesting regularly at 1/4 - 1/3 bloom. Mix with grasses like orchardgrass or fescue to moderate C:N ratio at termination. Consider seeding with spring oat nurse crop at low rate in fall or small grain that will be harvested/mowed to "release" clover understory. Inoculate with appropriate Rhizobium spp.; cross inoculates with crimson or white clover. Slower growing, must be seeded earlier and killed later than other fall-seeded legumes.



Clover, Red - Ackroyd [2020]





Clover, Red - 2020 [NaN]



Clover, Red - Salon [2020]



Clover, Red - Salon [2020]

GOALS

Growing Window Long Nitrogen Scavenging Lasting Residue Prevent Fall Soil Erosion Prevent Spring Soil Erosion Forage Harvest Value Nitrogen Fixation

Penetrates Plow Pan **Reduces Surface Compaction** Improve Soil Organic Matter Increase Soil Aggregation **Good Grazing** Pollinator Food



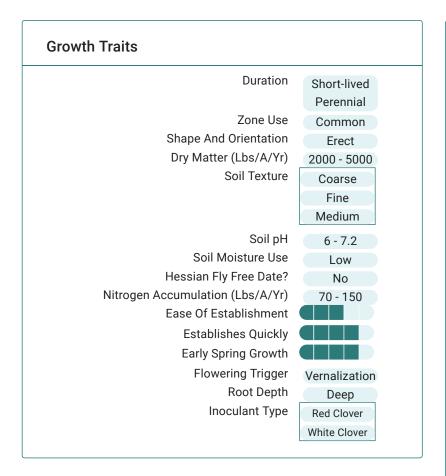
WEEDS

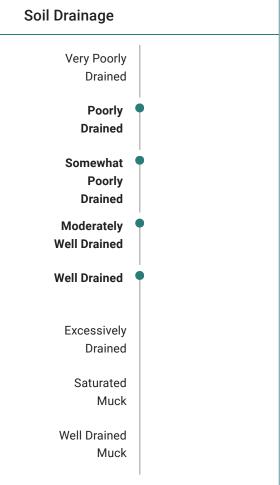
Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence Volunteer Establishment

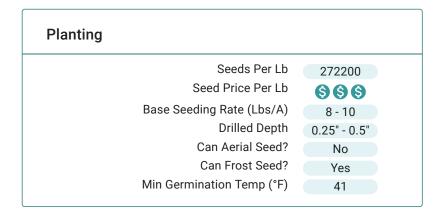
ENVIRONMENTAL TOLERANCES

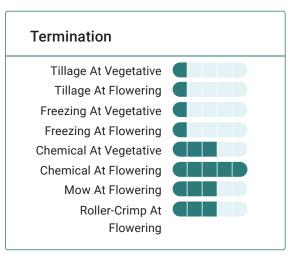
Low Fertility Drought Heat Shade Flood Salinity

REPUBLICATION PROPERTY PROPERT

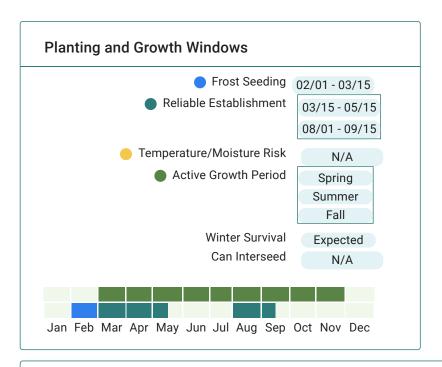








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Extended Comments

Planting: Can be frost seeded into wheat and other winter annual small grains. Can be included in mixes with other winter annuals but the seed should be separated and put in the small seed box. Organic Farmers have used this for years throughout the Northeast to spin on corn at layby time during last cultivation. In conventional farming we have used this planted with the interseeder to interseed into corn at layby time. Frost seeding may not be advisable in coastal areas.

Termination: If using herbicides to terminate use a tank mixture (e.g., glyphosate + dicamba or 2,4-d)

Growth, Roots, and Nutrients: Root is both tap and fibrous. Medium Red Clover seed is a small seed, for successful Red Clover establishment the soil should be firm (packed). Being a small seed, it should not be planted too deep, only up to ¼ inch deep. Most establishment problems have resulted from planting the seed to deep. In mixes, include this in the small box of the drill or adjust the drill accordingly that the seed is not placed too deep.

Forage and Grazing: Manage for bloat when grazing. When the crop is stressed it can produce phytoestrogens, so do not graze breeding/pregnant sheep on Red Clover. Particularly palatable to voles.

Pollinators: Delay termination until at least 30-50% bloom to maximize value to pollinators.

Nematodes: Host for root-knot nematode.

Insects: Reduced stripped cucumber beetle and melon aphid numbers when interplanted with cucumber and resulted in greater number of Orius, Geocoris and lady beetles in interplanted compared to cuke monoculture. Interplanted with bell pepper resulted in lower percentage of European corn borer infested fruit



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References & Resources

Multiple Purpose Cover Crops, Northeast Organic Farming Association of Connecticut

Fall Cover Crops, University of Delaware Cooperative Extension

Forage Species Adapted to the Northeast, West Virginia University Extension Service

Cover Crops and Green Manure Crops - Benefits, Selection, and Use, Rutgers Cooperative Research and Extension

Cover Crops and Green Manures (New England Vegetable Management Guide), University of Massachusetts Extension

<u>Choosing Cover Crops</u>, University of Massachusetts Extension

Late Season Cover Crops, University of Massachusetts Extension

Cover Cropping for Success, University of Maine Cooperative Extension

<u>Cover Crops for Home Gardens</u>, University of Maine Cooperative Extension

Selected Green Manures and Cover Crops for Maine, University of Maine

Selecting Forage Crops for Your Farm, University of Maine Cooperative Extension

<u>Cover Crops – What a Difference a Few Weeks Makes</u>, Cornell University Cooperative Extension

Early Spring Seasonal Cover Crops, Cornell University Cooperative Extension

Cover Crops for Conservation Tillage Systems, Penn State Extension

<u>Suppressing Weeds Using Cover Crops in Pennsylvania</u>, Penn State Extension

Special Cover Crop Control Considerations, Penn State Extension