

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 - Salon [2020]



Clover, Red - Salon [2020]

GOALS

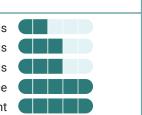
Growing Window Long Nitrogen Scavenging Lasting Residue Prevent Fall Soil Erosion **Prevent Spring Soil Erosion** Forage Harvest Value Nitrogen Fixation

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



WEEDS

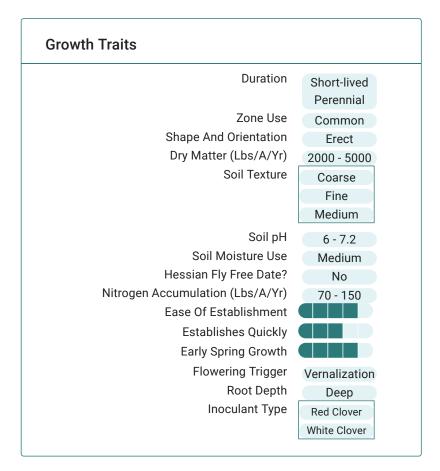
Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence Volunteer Establishment

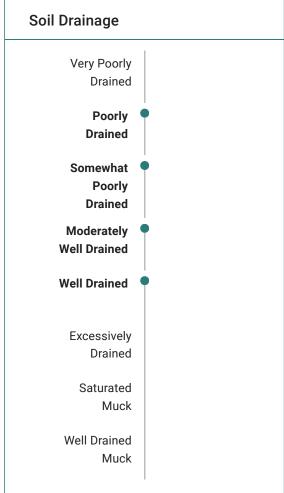


ENVIRONMENTAL TOLERANCES

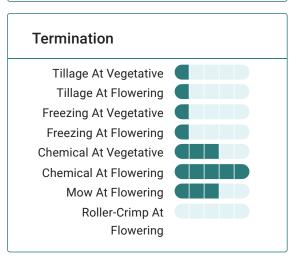
Low Fertility Drought Heat Shade Flood Salinity



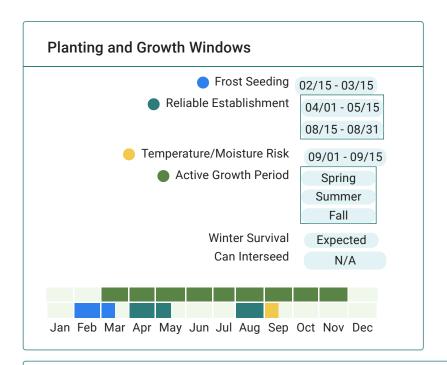












Extended Comments

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

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 1/4 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.

Soil Conditions: Not likely to survive more than one year on somewhat excessively to excessively drained soil.

Nematodes: Host for root-knot nematode.

Insects: Proso millet (Panicum miliaceum L.) can attract the parasitoids Trichogrammatidae, Scelionidae, Ceraphronidae

Termination: If using herbicides to terminate use a tank mixture (e.g., glyphosate + dicamba or 2,4-d); do not rely on glyphosate alone.

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.





References & Resources

Planting Flowers for Bees in Connecticut, Connecticut Agricultural Experiment Station

Use of Cover Crops and Green Manures to Attract Beneficial Insects, University of Connecticut Integrated Pest

Management Program

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

Forage Varieties for West Virginia, West Virginia University Extension Service

Walk-In Seedings, West Virginia University Extension Service

Pasture and Hay Seeding Rates, West Virginia University Extension Service

Frost Seedings, West Virginia University Extension Service

Combining Forage Species in a Seeding Mixture, West Virginia University Extension Service

Pasture and Hay Seeding Mixtures, West Virginia University Extension Service

<u>Conservation Cover for Pollinators</u>, Xerces Society for Invertebrate Conservation

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

Choosing Cover Crops, University of Massachusetts Extension

<u>Late Season Cover Crops</u>, University of Massachusetts Extension

Cover Crops - What a Difference a Few Weeks Makes, Cornell University Cooperative Extension

Medium Red Clover, Cornell University Cooperative Extension

Early Spring Seasonal Cover Crops, Cornell University Cooperative Extension

Late Summer Legumes, Cornell University Cooperative Extension

Cover Crops for Conservation Tillage Systems, Penn State Extension

Cover Crop Interseeder - Potential for Injury from Corn Herbicides, Penn State Extension

Suppressing Weeds Using Cover Crops in Pennsylvania, Penn State Extension

Management of Red Clover as a Cover Crop, Penn State Extension

<u>Using Flowering Cover Crops for Native Pollinating Bee Conservation</u>, Penn State Extension

Special Cover Crop Control Considerations, Penn State Extension