Legume
Sweetclover, Yellow
Melilotus officinalis

PLANT HARDINESS ZONE 5 DATASET

COVER CROP DESCRIPTION

Biennial. Historically a popular green manure. Prefers mild conditions, but most drought-tolerant legume once established. Not suitable for wet soils. Known for deep subsoiling, N fixation, high biomass, and sweet-smelling blooms that are beneficial for pollinators. Hard-seeded, some planted seed may germinate in future seasons. Lots of small seeds, mow or terminate before they are viable. Growth in the first season is mostly underground, it should not flower; avoid mowing. After overwintering, second season growth is aboveground. Inoculate; cross-inoculates with alfalfa. Cultivar considerations: 'Hubam' annual white sweetclover is also seeded in spring, but doesn't overwinter.

Sweetclover, Yellow - PublicDomain [2017]

GOALS

Growing Window	Very 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	

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Growth Traits

Duration	Biennial
Zone Use	Common
Shape And Orientation	Erect
Dry Matter (Lbs/A/Yr)	3000 - 5000
Soil Texture	Coarse, Fine, Medium
Soil pH	6.5 - 8
Soil Moisture Use	Medium
Hessian Fly Free Date?	No
Nitrogen Accumulation (Lbs/A/Yr)	90 - 170
Ease Of Establishment	■■□□□
Establishes Quickly	■■■□□
Early Spring Growth	■■■□□
Flowering Trigger	Vernalization
Root Depth	Deep
Inoculant Type	Alfalfa, Sweetclover

Soil Drainage

- Very Poorly Drained
- Poorly Drained
- **Somewhat Poorly Drained**
- **Moderately Well Drained**
- **Well Drained**
- **Excessively Drained**
- Saturated Muck
- **Well Drained Muck**

Planting

Seeds Per Lb	259000
Seed Price Per Lb	$$$
Base Seeding Rate (Lbs/A)	8 - 15
Drilled Depth	0.25" - 0.5"
Can Aerial Seed?	No
Can Frost Seed?	No
Min Germination Temp (°F)	42

Termination

Tillage At Vegetative	■□□□□
Tillage At Flowering	■□□□□
Freezing At Vegetative	■□□□□
Freezing At Flowering	□□□□□
Chemical At Vegetative	■■■■■
Chemical At Flowering	■■■■■
Mow At Flowering	■■□□□
Roller-Crimp At Flowering	■□□□□

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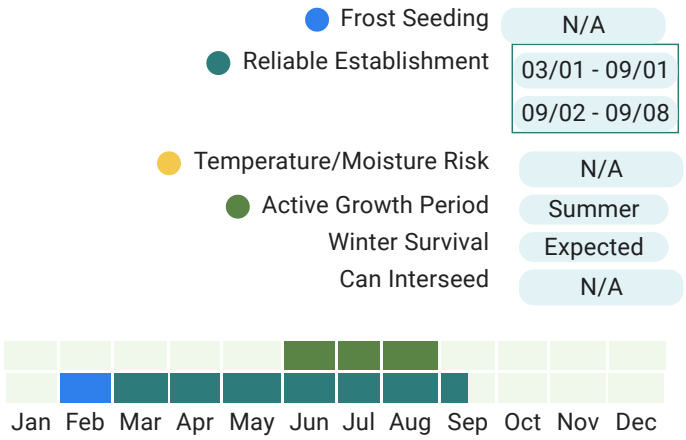
Planting and Growth Windows



Extended Comments

Basic Agronomics: kill before bud stage for best nitrogen release

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

Weeds: Mature plants become woody; kills easily; hard seeds reseed

Pollinators: Excellent bee forage, particularly attractive to honeybees. Delay termination/cutting until at least 30-50% bloom to maximize value to pollinators.

Nematodes: Host for some root-knot nematode species, soybean cyst nematode.

References & Resources

Multiple Purpose Cover Crops, Northeast Organic Farming Association of Connecticut
Cover Crops and Green Manures, University of Vermont Extension
2015 Cover Crop Mix in Corn Silage Trial, University of Vermont Extension
Conservation Cover for Pollinators, Xerces Society for Invertebrate Conservation
Cover Crops and Green Manures (New England Vegetable Management Guide), University of Massachusetts Extension
Choosing Cover Crops, University of Massachusetts Extension
Using Green Manures, Maine Organic Farmers and Gardeners Association