Grass
Oats, Spring
Avena sativa

PLANT HARDINESS ZONE 6 DATASET

COVER CROP DESCRIPTION

Does not overwinter when fall-seeded. Good weed suppressor, ok N scavenger, high forage quality. Needs good fertility for maximum benefits. Good nurse crop. Not a host for take-all disease. Mix with radish, peas. Planted early in fall, but last small grain to mature in spring. Compared to other small grains: lowest biomass, slightly lower C:N, lower tolerance for dry/wet extremes.


Oats, Spring - Bjorkman [2020]


Oats, Spring - Ackroyd [2020]


Oats, Spring - Ackroyd [2020]

GOALS

Growing Window	Short
Nitrogen Scavenging	■■■□□
Lasting Residue	■■■□□
Prevent Fall Soil Erosion	■■□□□
Prevent Spring Soil Erosion	■■■□□
Forage Harvest Value	■■■■■
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	Annual
Zone Use	Common
Shape And Orientation	Erect
Dry Matter (Lbs/A/Yr)	1000 - 4000
Soil Texture	Coarse Fine Medium
Soil pH	5.3 - 8.5
Soil Moisture Use	Medium
Hessian Fly Free Date?	No
Ease Of Establishment	
Establishes Quickly	
Early Spring Growth	
Flowering Trigger	
Root Depth	Medium

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	19400
Seed Price Per Lb	$ $ $
Base Seeding Rate (Lbs/A)	60 - 100
Drilled Depth	0.75" - 1.5"
Can Aerial Seed?	No
Can Frost Seed?	No
Min Germination Temp (°F)	38

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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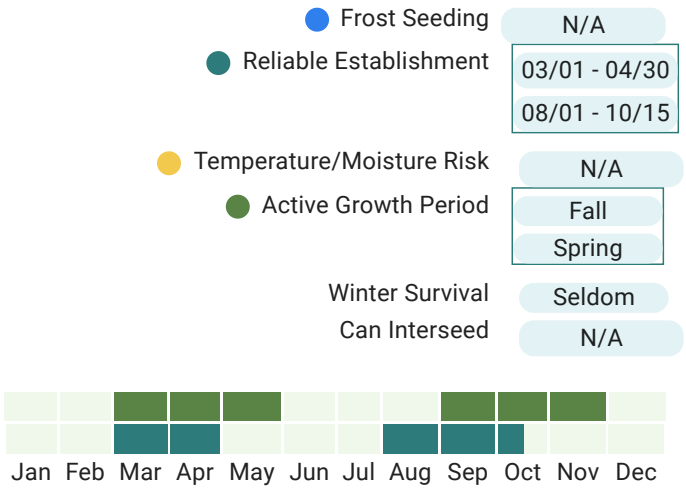
Planting and Growth Windows



Extended Comments

Basic Agronomics: Dry matter highly dependent on planting and termination date and precipitation. Prone to lodging in N-rich soil; decomposition depends on maturity at kill. When planted in September will grow faster than rye. If planted early enough (e.g. after peas), it creates a very good lasting residue. Bloat potential that is easily managed. Nitrate testing of forage is recommended.

Forage and Grazing: Bears traffic very well when drilled.

Disease: Information too limited to rate P and K effect. Cleaned, bin-run seed will suffice; Non host for soybean cyst nematode and root knot nematode. Bears traffic very well when drilled. Some data suggest that oats were less effective at reducing marestail than barley or cereal rye.

Nematodes: Non host for soybean cyst nematode and root knot nematode.

References & Resources

Multiple Purpose Cover Crops, Northeast Organic Farming Association of Connecticut
Fall Cover Crops, University of Delaware Cooperative Extension
Spring Planted Cover Crops for Vegetable Rotations, University of Delaware Cooperative Extension