Cover Crop Information Sheet

OATS (*Avena sativa*)

Oats can produce a good amount of biomass and are not as tall as cereal rye. Many small-scale producers use oats before early planted spring vegetables. Oats tend to have a lower carbon:nitrogen ratio than cereal rye, but are more susceptible to Barely Yellow Dwarf Virus and rust. Oats suppress root-knot nematodes. Some oat varieties may sometimes be mistakenly identified as Black oats (*Avena strigosa*). Black oats are not cold tolerant and not appropriate for the Piedmont, Mountains, and Ridge & Valley regions.

Recommended Varieties

Variety	Reasons Why	Source
Coker 277	Standard variety, cold tolerant.	
Horizon 720, Legend 567	Good forage varieties, resistant to crown rust, good biomass.	Jimmy Carter Plant Materials Center data
Cosaque	Good cold tolerance, more susceptible to rust than rye or black oats. Cosaque is sometimes mistakenly sold as a black oat but is *Avena sativa.*	
Graham	A shorter height variety.	Clemson University

Planting Information

Information		Comments	Source
Drilled Seed Depth (inches)	½ - 1 ½		Managing Cover Crops Profitably
Drilled Seeding Rate (lbs/acre)	60 - 70		Managing Cover Crops Profitably
Broadcast Seeding Rate (lbs/acre)	70 - 100		Managing Cover Crops Profitably

Termination Information

Information	Source
Most vegetable farmers use mowing and incorporation for termination. Flail mowers provide the finest residue and most even distribution, but rotary mowers can be used. Small scale farmers can use weed-eaters on smaller beds. Residue should be incorporated as soon after mowing as possible. Leave at least 2 weeks for residue to decompose before planting. If there is high biomass, then 3 weeks or more may be needed. Decomposition is greater in moist, warm conditions. If the soil is dry then irrigation may be necessary. Cool soils conditions will lengthen time needed before planting. With no-till production, apply herbicide and then roll and crimp 2 days later. For organic systems, roll/crimp, and then repeat in same direction 2-3 days later. Herbicides are usually more effective after blooming (antheses). Rolling & crimping is most effective at milk to soft dough stage. Consult your local Extension and state Pest Management Handbook for herbicide recommendations. Always follow the herbicide label.	Managing Cover Crops Profitably

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Cultural Traits

Traits	Comments	Source
Typical Dry Matter Range (lbs/acre)	2,000 - 7,000	Managing Cover Crops Profitably
Typical Total N Range (lbs/acre)	Not available	
Life Cycle	Cool season annual cereal	Managing Cover Crops Profitably
Growth Habit	Upright	Managing Cover Crops Profitably
Preferred Soil pH	5.5 - 7.5	Managing Cover Crops Profitably
Relative Seed Cost ($/acre)	$$$	Based on survey of seed costs using maximum price and max seeding rate
Min. Germination Temp (F)	38°	Managing Cover Crops Profitably
Cautions		

Sources:

East Texas Seed: https://www.easttexasseedcompany.com/oatswheat.php

Jimmy Carter Plant Materials Center Annual Reports: http://caes2.caes.uga.edu/commodities/fieldcrops/forages/species/Oat.html

Managing Cover Crops Profitably: https://www.sare.org/Learning-Center/Books