



Oats

Avena sativa

This small grain is not particularly winter hardy. Spring planted Oats are used for green manure, while Fall planted Oats provide winter killed ground cover. The residue is incorporated before the early planting of vegetables. Oats are particularly useful in rotations with vegetable crops because they grow quickly and are easily killed. They are also useful as a nurse crops with legumes, such as Hairy vetch and peas, for forage, erosion control and weed suppression.



Land Preparation

Work land to provide a seed bed free of weeds. For spring planted oats, provide about 40 lb/ac of nitrogen fertilizer.ⁱ For fall seeding, or when using oats as a nurse crop with legumes, no additional fertilizer is required.

Seeding Rate

When sown alone in the spring or fall
Drill 80-110 lb/ac
Broadcast 110-140 lb/acⁱⁱ
Increase the rate 10% in late September.
When sown in grain/legume combinations:
In late summer sow Oats with Hairy Vetch at Oats 80 lbs./acre and Vetch 40 lb/acⁱⁱⁱ The oats provide a trellis for the vetch to grow and overwinter as a fall legume.
In the early spring sow field peas/oats and hairy vetch at a proportion of 60%/25%/ 15%ⁱⁱⁱ. The oats provide support for the pea crop followed by growth of the vetch in July. This can provide ground cover for the growing season and added nitrogen as well.

Seeding date

April for green manure, mid August through September for winter cover.

Seed sources

Local farm seed dealer. Seedway. Feed oats produced “on farm” are acceptable if they are free of seed-borne diseases and weeds.ⁱⁱⁱ There are many varieties of certified “forage oats”, that produce more spring growth than oats grown for grain.^{iv} Varieties recommended for New York State include: Blaze, Rodeo, Prairie.^v

Maintenance

Soil crusting after heavy rain will affect the stand and may require reseeding. Check for winter survivors.

Control

Incorporate spring sown oats or winter survivors before seed set (mid June). Oats incorporate easier than Rye.
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Tips

The root systems of oats are not effective at breaking up compacted soils.
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ⁱ Bergstrom, G. et al. 1987. Cornell Field Crops and Soils Handbook. p.148.

ⁱⁱ Clark, A. 2007. Managing Cover Crops Profitably, 3rd ed., Sustainable Agriculture Network. p.70.

ⁱⁱⁱ <http://www.grazeny.com/Information/Small%20Grains%20For%20Grazing.doc>

^{iv} Stivers LJ, et al. 1998. Cover Crops for Vegetable Production in the Northeast. Information Bulletin 244.

^v 2005 Cornell Guide for Integrated Field Crop Management, p 114.