



Fall Mustards

Sinapsis alba or *Brassica hirta*
Brassica juncea
Brassica nigra

In the Northeast, mustard is used as a fall-planted cover crop that winter-kills. This crop thrives in the cool conditions of fall and can give 100% ground cover. It adds organic matter, breaks up hardpan, and suppresses weeds in the following crop. Soil-borne diseases may be suppressed by glucosinolates in the residue of some varieties. There are three species of mustard (above) that behave similarly when sown in the fall.



<i>Land preparation</i>	Prepare a firm, weed-free seedbed to ensure a good stand. Nutrients are often sufficient following vegetables; if nitrogen is depleted, 25 lb/ac ¹ improves growth substantially. Drill 5-12 lb/ac, depending on seed size. Broadcast 10-15 lb/ac. ³ Cover ½ inch, then roll the ground to improve seed-to-soil contact but do not break up soil aggregates.
<i>Seeding date</i>	Mid-July through August. Biomass potential drops substantially with each week delay after mid August. Flowers in 4-6 weeks. Flowers in plantings after August 20 do not produce seed.
<i>Seed sources</i>	Rupp Seeds (Caliente 199), MinnDak Growers (Tilney), McKay Seeds (IdaGold, Pacific Gold).
<i>Maintenance</i>	None.
<i>Control</i>	Winter-kill followed by incorporation in the spring. Do not let mustards go to seed. Incorporating fall mustard will not biofumigate soil, so tillage is not advised.
<i>Tips</i>	Do not use in rotations with Brassica crops. Early planting the following spring is possible because fall mustards leave little spring residue. Use to control disease on muck soil after after onion and lettuce crops. Use to suppress <i>Verticillium</i> in potato ⁴ and to reduce weeds in the following crop. ⁵ Mustards attract flea beetles and diamond-back moths, ¹ but the risk is lowest in

¹ Björkman and Shail 2008 unpublished.
² McGuire, A. 2003. Mustard Extension bulletin 19525 http://www.grant-adams.wsu.edu/agriculture/covercrops/green_manures/index.htm
³ Clark, A. 2007. Managing Cover Crops Profitably, 3rd ed., Sustainable Agriculture Network. p.70.
⁴ Snapp, S.S. et al. Mustards – A Brassica Cover Crop for Michigan,
⁵ Snapp, S.S. and D. Mutch, 2003. Cover Crop Choices for Michigan Vegetables Michigan State University Extension Bulletin E 2896