



# Forage Radish

*Raphanus sativus*

**F**orage radish is a fall-seeded Brassica that is not winter hardy. It forms thick, white taproots that can reach lengths of 8 - 14 inches, most of which remain underground. Radishes are excellent at breaking up shallow layers of compacted soils, earning them the nicknames "biodrills" or "tillage radishes."<sup>1</sup> A thinner extension of the taproot can penetrate deeper layers of compaction.<sup>2</sup> The roots die over the winter and leave channels so that the soil dries and warms up faster in the spring. Forage radishes also suppress fall weeds.<sup>1,5</sup>



**Land preparation** Smooth seedbed, well-drained but with adequate moisture for germination.

**Seeding rate** Good conditions: drill 7-10 lb/ac.  
Challenging conditions: broadcast or drill 10-13 lb/ac.<sup>3</sup>  
Higher seeding rates give weaker growth.<sup>3</sup>  
Plant at a depth of ¼-½ inches.  
Drilling gives a much better stand, so broadcasting should be reserved for when the soil is too wet to drill. After seeding, roll the ground to improve seed-to-soil contact but do not break up soil aggregates.  
Can be planted with 40 lb/ac wheat for spring cover and weed suppression.<sup>4</sup>

**Seeding date** Late August is ideal.<sup>6</sup> As late as early September in Zone 6.

**Seed sources** Bird Hybrids, Lancaster Agricultural Supply, Ernst Conservation Seed (Cedar Meadow forage radish). Seedway (GroundHog).

**Maintenance** Little maintenance necessary.

**Control** None; they winter-kill in most New York winters.<sup>6</sup> After mild winters, survivors should be killed with herbicide or mowing before seeds harden.<sup>5</sup>

**Tips** Forage radishes give less ground cover in the fall than mustard, rape, or turnip, but have comparable biomass.<sup>6</sup>  
Do not use in rotations with Brassica vegetable crops.  
Radishes are very attractive to flea beetles, but less so in the fall.

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**References:**

<sup>1</sup>Steve Groff phone call 1/22/08

<sup>2</sup>Weil, R. and S. Williams. 2004. Crop Cover Root Channels May Alleviate Soil Compaction Effects on Soybean Crop *Soil Sci. Soc. Am. J.* 68:1403-1409

<sup>3</sup>Ngouajio, M. 2009. Biofumigation and Soil Health with Mustard Cover Crops in 2009 Great Lakes Expo proceedings. Also Steve Groff pers. comm.

<sup>4</sup>Weil, R., C. White, and Y. Lawley. 2009. Forage Radish: New Multi-Purpose Cover Crop for the Mid-Atlantic. University of Maryland. 6pp.

<http://extension.umd.edu/publications/pdfs/fs824.pdf>

<sup>5</sup>Ngouajio, M. and D. Mutch. 2004. Oilseed Radish: A New Cover Crop for Michigan. Extension Bulletin E2904. Michigan State University

<sup>6</sup>Björkman, T. and J. W. Shail. Unpublished

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For more information



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