

Cover Crop Guide

Forage Radish

Raphanus sativus

Forage radish is a fall-seeded Brassica that is not winter hardy. This crop forms thick white tap roots that can reach lengths of 8 to 14 inches, most of which is underground. Radishes are excellent at breaking up shallow layers of compacted soils, earning them the nickname “biodrills” or “tillage radishes.”ⁱ A thinner extension of the tap root can penetrate deeper layers of compaction.ⁱⁱ The roots die over the winter and leave channels so that the soil dries and warms up faster in the spring.



<i>Land preparation</i>	Smooth seed bed, well drained but with adequate moisture.
<i>Seeding rate</i>	Drill, 10 lb/acre (drilled in good conditions) to 13 lb/ac (broadcast or drilled in challenging conditions ⁱⁱⁱ 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 not to break up soil aggregates. Depth 1/4-1/2 in. Can be planted with 40 lb/ac wheat for spring cover and weed suppression. ^{iv}
<i>Seeding date</i>	Four to 10 weeks before frost. (Late August- September)
<i>Seed sources</i>	Lancaster Agricultural Supply (as Cedar Meadow Forage Radish)
<i>Maintenance</i>	Little maintenance required. Suppression of Fall weeds ^v
<i>Control</i>	None; they winter kill.
<i>Tips</i>	Biodrills give less ground cover in the fall than mustard, rape or turnip but have comparable biomass ^{vi} . Do not use in rotations with brassica vegetable crops. Radishes are magnets for flea beetles, but less so in the fall.

ⁱ Steve Groff phone call 1/22/08

ⁱⁱ 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

ⁱⁱⁱ Steve Groff email

^{iv} Weil, R. and S. Williams. 2003. Brassica cover crops to alleviate soil compaction. University of Maryland Fact Sheet. 2pp. www.enst.umd.edu/weilbrassicacovercrops.pdf

^v Steve Groff phone call 1/22/08

^{vi} Our data.