

COVER CROP DESCRIPTION

Also known as Daikon or tillage radish. Excellent fall-planted choice if winter-kill is desired. Fastest-growing fall cover crop option if good fertility is present. Good for suppressing weeds. Winter-killed residues decompose and release N rapidly. May overwinter if snow cover is present to buffer temperature extremes. Plant early in fall and plant at the low end of the recommended seeding rate for large plants that are more likely to winter-kill. Late planting and high seeding rates promote small plants that are more winter hardy but cover crop benefits will be greatly diminished. Acts differently when planted in spring: much less root and top growth, bolts and flowers very quickly. Some varieties may differ in sensitivity to daylength and thus may be slower to bolt in spring. Terminate prior to seed set to prevent it from becoming a weed. If it survives winter, it can be difficult to terminate. Good in mixes to add diversity, especially with peas and oats, but plant at the low end of the recommended seeding rate range to prevent it from out-competing companions. Plant in mix with a winter-hardy grass such as cereal rye if N leaching over winter/early spring is a concern. Has vigorous top growth and a thicker root than oilseed radish, is slower to bolt when planted in the fall. Unpleasant sulfur-smelling odor can be released as plants decay.







Radish, Forage - Weil [2020] Radish, Forage - Weil [2020]



GOALS

Growing Window Short Nitrogen Scavenging Lasting Residue Prevent Fall Soil Erosion Prevent Spring Soil Erosion Forage Harvest Value

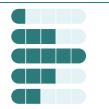
Penetrates Plow Pan **Reduces Surface Compaction** Improve Soil Organic Matter Increase Soil Aggregation **Good Grazing** Pollinator Food



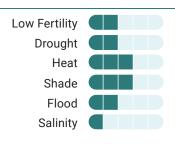
WEEDS

Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence

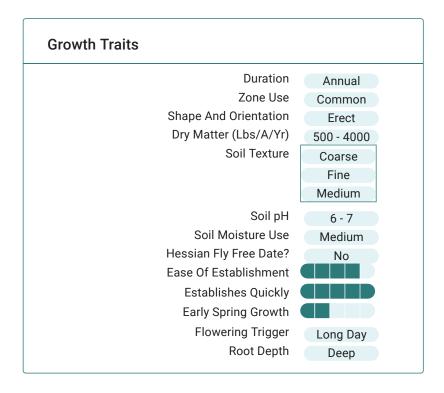
Volunteer Establishment

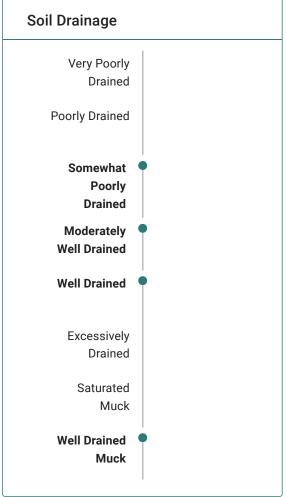


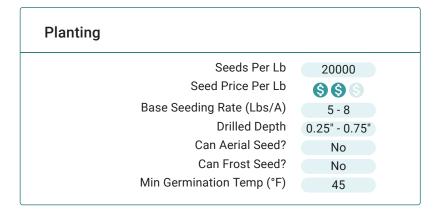
ENVIRONMENTAL TOLERANCES

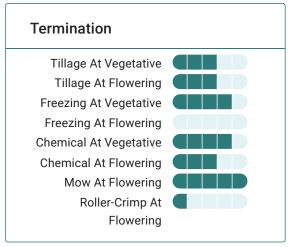


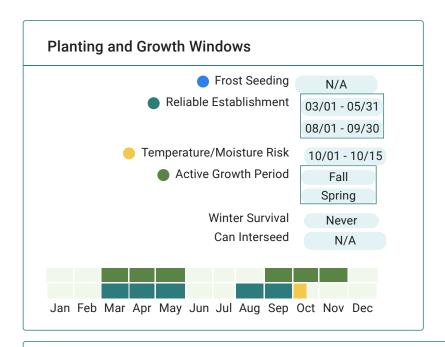












Extended Comments

Taxonomy: This is the common cover-crop type

Basic Agronomics: Planting date critical to aboveground biomass

Soil Conditions: We noted that a plow pan causes poor drainage in soil classes with inherently better drainage. Radishes are often used to correct that condition.

Forage and Grazing: Used in grazing mixes, season extension for grazing into the fall/early winter. Can be included in summer annual grazing mixes. Bloat risk and other animal health risks associated with brassicas.

Goals: Brassicas are excellent N scavengers but will winter-kill and release N potentially long before a cash crop is present. If N scavenging is goal, plant in mix with species that overwinters.

Pollinators: Attracts earthworms.

Nematodes: Supports reproduction of some root-knot nematode species/races.

Insects: Highly attractive to flea beetles, which can become a problem in other brassica vegetable crops (e.g., broccoli) and eggplant.





References & Resources

Multiple Purpose Cover Crops, Northeast Organic Farming Association of Connecticut

Cover Crops and Green Manures, University of Vermont Extension

2016 Cover Crop Mix in Corn Silage Trial, University of Vermont Extension

2015 Cover Crop Mix in Corn Silage Trial, University of Vermont Extension

2014 Summer Cover Crop Mix, University of Vermont Extension

2014 Early Fall Cover Crop Trial, University of Vermont Extension

<u>Under Cover – Integrating Cover Crops into Silage Corn Systems</u>, University of Vermont Extension

UNH Researchers Find Forage Radish is the Cream of Cover Crops, University of New Hampshire Ag Experiment Station

Cover Crops and Green Manures (New England Vegetable Management Guide), University of Massachusetts Extension

Choosing Cover Crops, University of Massachusetts Extension

Cover Crops, Brassicas, University of Massachusetts Extension

Cover Crops, University of Maryland Extension

Plant Cover Crops, University of Maryland Extension

Forage Radish - New Multi-Purpose Cover Crop for the Mid-Atlantic, University of Maryland Extension

Cover Cropping for Success, University of Maine Cooperative Extension

Spring Management of Overwintering Cover Crops - Don't Wait!, Cornell University Cooperative Extension

Early Spring Seasonal Cover Crops, Cornell University Cooperative Extension

<u>Late Summer Crucifers</u>, Cornell University Cooperative Extension

Cover Crops for Conservation Tillage Systems, Penn State Extension

<u>Suppressing Weeds Using Cover Crops in Pennsylvania</u>, Penn State Extension

Plant Cover Crops, USDA NRCS