PLANT HARDINESS ZONE 7 DATASET



COVER CROP DESCRIPTION

Excellent fall-planted cover crop choice. Generally winter-hardy if seeded during the optimum planting window; cultivars vary in cold hardiness. With adequate residual soil fertility, provides good biomass, forage, deep branched taproot, N scavenging, weed suppression. Host for sclerotinia, so caution when planting prior to legumes. Spring flowers attract pollinators. Low cost to seed. Range of cultivar choices (canola for seed, hybrids for grazing, etc.), characteristics may differ by cultivar. Contributes pollinator food source to mixes, but plant at low end of seeding rate to prevent it from outcompeting other cover crops in the mix. Hard to kill in late spring with herbicides. "Dwarf Essex" is a commonly-grown cultivar.







Rapeseed - Raubenstein [2020]



Rapeseed - Salon [2020]

GOALS

Growing Window Long 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**



WEEDS

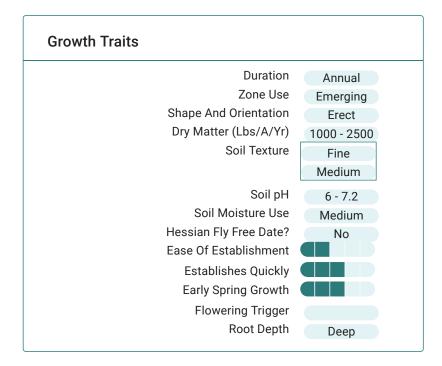
Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence Volunteer Establishment

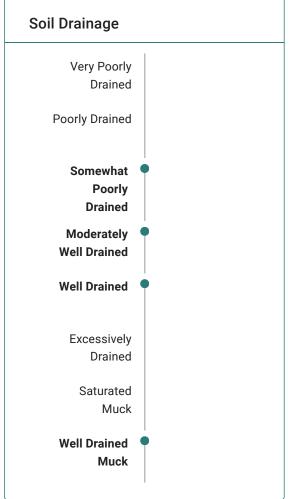
ENVIRONMENTAL TOLERANCES

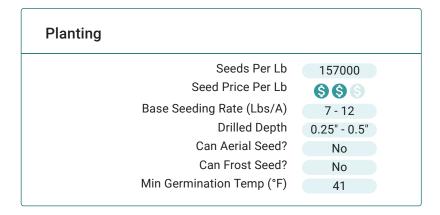
Low Fertility Drought Heat Shade Flood Salinity

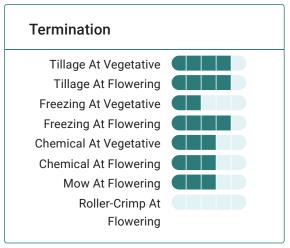


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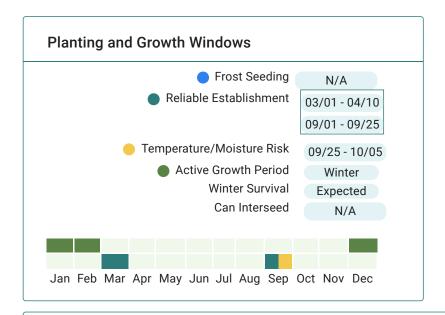








PLANT HARDINESS ZONE 7 DATASET



Extended Comments

Pollinators: One of the first blooms early in the spring good for pollinators

Growth, Roots, and Nutrients: Rapeseed has a deep taproot and also a fibrous root system near the surface oidf the soil.

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

Termination: Terminate at first sign of flowering to avoid risk of seed set.

Weeds: Many Brassicas have hard seed; Can bolt under certain conditions and become a serious weed if allowed to go to seed. Host for root-lesion nematode (P. penetrans).

Forage and Grazing: Oilseed rape has high levels of glucosinulates and erucic acid whichare toxic to people and livestock. Canola and forage rape have low levels of these compounds. Bloat risk and same animal health risks as other brassicas. Not palatable to voles.

Environmental Tolerances: Does very poorly under low-N conditions like most grasses.



♠ PLANT HARDINESS ZONE 7 DATASET

References & Resources

Fall Cover Crops, University of Delaware Cooperative Extension

Spring Planted Cover Crops for Vegetable Rotations, University of Delaware Cooperative Extension

Cover Crops, Brassicas, University of Massachusetts Extension

Plant Cover Crops, University of Maryland Extension

Forage Turnip and Rapeseed, Cornell University Cooperative Extension

Late Summer Crucifers, Cornell University Cooperative Extension

<u>Cover Crops for Conservation Tillage Systems</u>, Penn State Extension

Using Flowering Cover Crops for Native Pollinating Bee Conservation, Penn State Extension

Special Cover Crop Control Considerations, Penn State Extension