

### PLANT HARDINESS ZONE 5 DATASET

#### **COVER CROP DESCRIPTION**

Most commonly-grown cover crop in the US. Most winter-hardy cover crop. Best winter cover for low-fertility or acid soils. Tolerates wet soil. Winter cereal rye requires vernalization (overwintering) to flower and will likely fail to flower if planted in spring. Best winter cover for many purposes: excellent for biomass, N scavenging, weed control. Good forage, but low quality after heading. Best choice for roller-crimping. Height, biomass, high C:N ratio at maturity may hinder the growth of a following non-legume cash crop. Potential weed if it sets seed, especially in small grain cash crops. Mixes well with legumes. Can plant later than any small grain, but goes to head early in spring – only barley is earlier.







Cereal Rye, Winter - Ackroyd [2020] Cereal Rye, Winter - Bjorkman [2020] Cereal Rye, Winter - Ackroyd [2020]

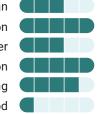


### **GOALS**

**Growing Window** 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**

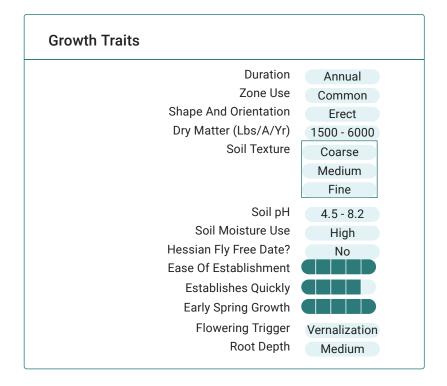
Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence

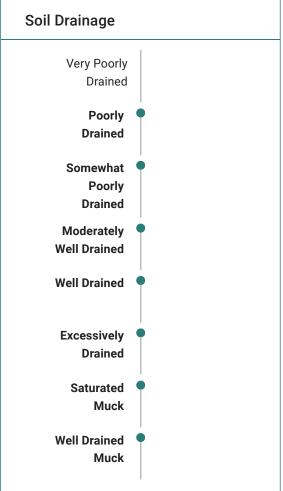


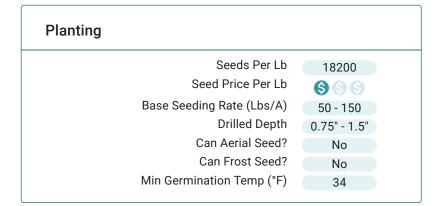
#### **ENVIRONMENTAL TOLERANCES**

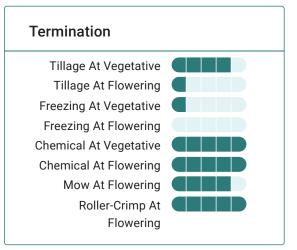
Low Fertility Drought Heat Shade Flood Salinity

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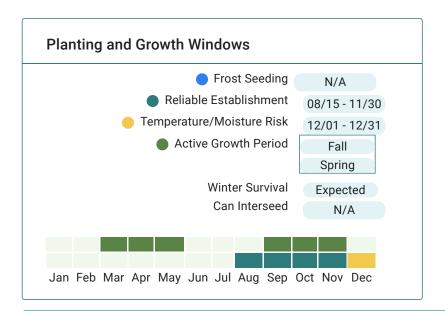








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## **Extended Comments**

Basic Agronomics: Depends on fall planting date as well as spring termination date.

**Planting:** If you are planning to use as a killed cover crop mulch for following crop you need to seed at higher rate - up to 150 lbs/acre. Can be interseeded into corn after VT as drydown starts. Can be interseeded into soybeans once they start to yellow.

**Termination:** Roller-crimping is less effective on sparse stands.

**Growth, Roots, and Nutrients:** Deep rooting to recover nitrogen requires earlier planting than plantings for winter erosion protection

Forage and Grazing: Can be lightly grazed in the fall and again in the spring, or harvested in the spring as ryelage.

**Weeds:** Can become a weed if tilled at wrong stage; Best if killed early; Not recommended before corn; Mow-kills after heading

**Insects:** Use as a winter crop and terminated in early or late spring has no impact on arthropods in a subsequent soybean crop



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### **References & Resources**

Multiple Purpose Cover Crops, Northeast Organic Farming Association of Connecticut **<u>UNH Researchers Find Forage Radish is the Cream of Cover Crops.</u>** University of New Hampshire Ag Experiment Station **<u>Early Spring Seasonal Cover Crops.</u>**, Cornell University Cooperative Extension **Cover Crops for Conservation Tillage Systems**, Penn State Extension