

# PLANT HARDINESS ZONE 5 DATASET

## **COVER CROP DESCRIPTION**

Also known as Austrian Winter Pea. Vining cool-season annual. Variable winter hardiness. Excellent N-fixer, good biomass and forage. Low risk of reseeding and becoming weed. Susceptible to sclerotinia crown rot, rotate with non-susceptible crops to reduce risk. Inoculate the seed with appropriate Rhizobium spp.; cross inoculates with vetch. If the goal is winter-wintering, select cultivar accordingly, avoid planting too early or late, and plant at the deeper end of the recommended planting depth range (~2" deep). May be planted in spring, but potentially slower growth and lower biomass and N fixation than spring peas. Mixes well with upright species due to its vining habit. Residue decomposes rapidly and releases N faster than vetch.



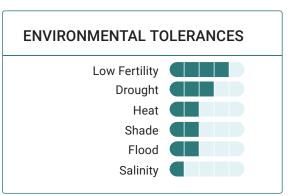


Pea, Winter - Mirsky Lab [2020]

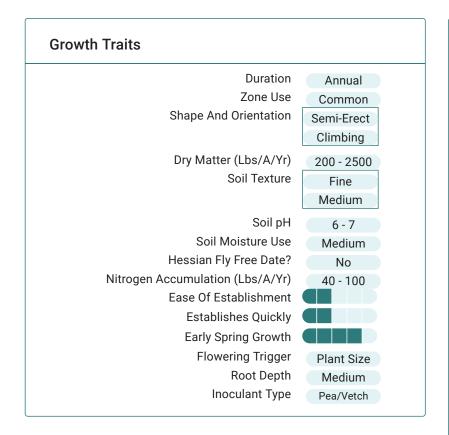
Pea, Winter - Mirsky Lab [2020]

### **GOALS Growing Window** Penetrates Plow Pan Medium Nitrogen Scavenging **Reduces Surface Compaction** Lasting Residue Improve Soil Organic Matter Prevent Fall Soil Erosion Increase Soil Aggregation Prevent Spring Soil Erosion **Good Grazing** Forage Harvest Value Pollinator Food Nitrogen Fixation

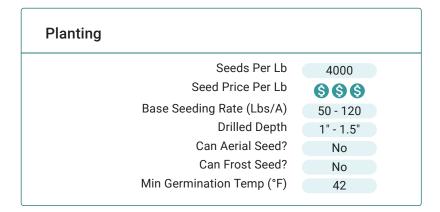


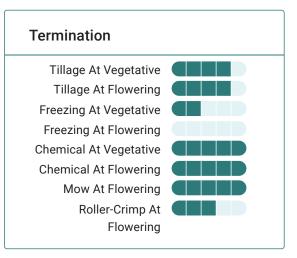


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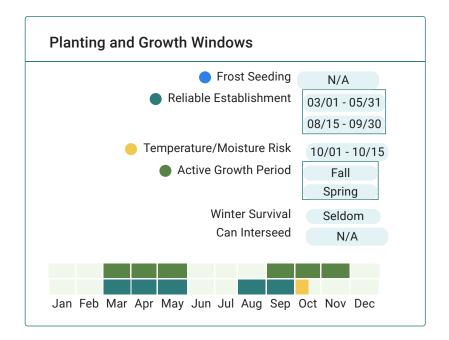








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## **Extended Comments**

**Environmental Tolerances:** Winter survival depends on seeding: too early of a seeding it flowers and doesn't survive, too late and it doesn't establish and survive.

**Basic Agronomics:** Dry matter highly dependent on planting and termination date and precipitation. Season length, habit vary by cultivar. Biomass breaks down quickly; early planting and termination reduces winter survival. Mixes well with grains when grown for forage. Bloat potential that is easily managed. Seed vigor highly variable. For grazing purposes, restrict to 30% of total ration or mixing with a grass is recommended.

**Planting:** To plant at the lower end of the recommended range consider inclusion of peas with a small grain cover crop like rye as a nurse crop. Germinates best at temperatures around 55 degrees F, so fall germination is often faster than spring germination.

Termination: If using herbicides to terminate use a tank mixture (e.g., glyphosate + dicamba or 2,4-d)

Forage and Grazing: Good cool season component for grazing mixes.

Weeds: Late planting increases heaving. Weak plant with low volunteer seed survivability.

Disease: Susceptible to sclerotinia in the East.

Goals: Best mixed with cereals to prevent lodging.

Pollinators: Self-pollinated so not particularly useful for pollinators compared to other legumes.

**Nematodes:** Some cultivars, nematode resistant. Poor host for soybean cyst nematode. Host for root knot nematode, Penetrans Root-Lesion Nematode and sugarbeet cyst nematode.

### References & Resources

**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 Early Fall Cover Crop Trial**, University of Vermont Extension

Cover Cropping for Success, University of Maine Cooperative Extension

Cover Crops for Conservation Tillage Systems, Penn State Extension

<u>Using Flowering Cover Crops for Native Pollinating Bee Conservation</u>, Penn State Extension