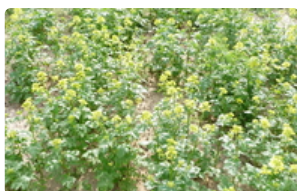




PLANT HARDINESS ZONE 7 DATASET

## COVER CROP DESCRIPTION

"Mustard" encompasses several species including white/yellow mustard (*Sinapis alba*), Indian/brown mustard (*Brassica juncea*), and black mustard (*Brassica nigra*). Research and match varieties to your needs. Similar characteristics to other brassicas such as rapeseed/canola. Most commonly used for insect and disease suppression and adding diversity to mixes. Contains the most bio-toxic compounds, best brassica for bio-fumigation in zones with sufficient heat accumulation to support high biomass production (requires soil incorporation, etc.). Potential for fast fall growth and high biomass with good soil fertility. Well-documented for deep N scavenging in fall. Not known for subsoiling, some varieties may not have a taproot. Winter-hardiness, day-length response, other characteristics vary widely by cultivar. If planted in the spring, may bolt (flower) before it can produce much biomass. Does not form associations with arbuscular mycorrhizal fungi. Host for insects of many related cash crop species used in vegetable crop production.



Mustard - Bjorkman [2020]



Mustard - Bjorkman [2020]

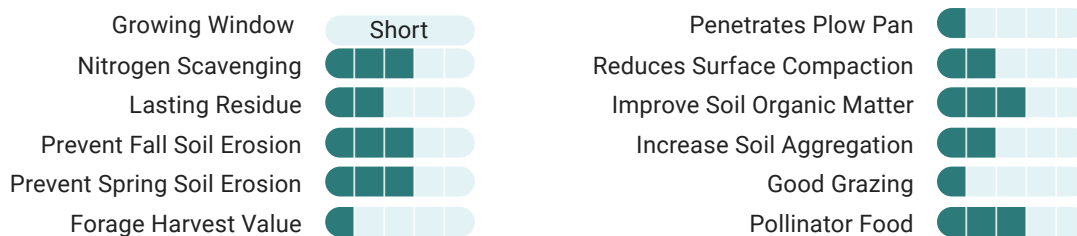


Mustard - Larson [2020]

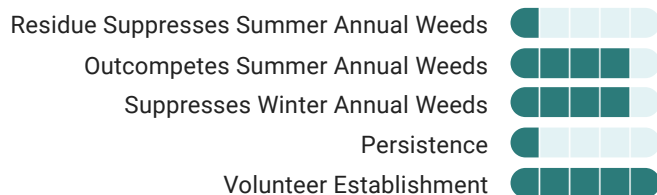


Mustard - Larson [2020]

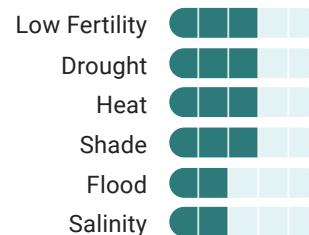
## GOALS



## WEEDS



## ENVIRONMENTAL TOLERANCES

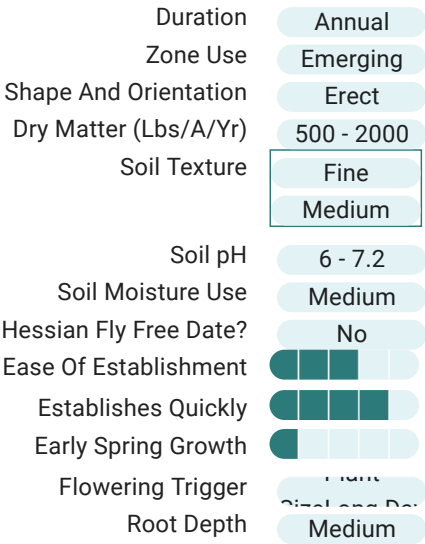


Brassica  
Mustard  
Brassica juncea

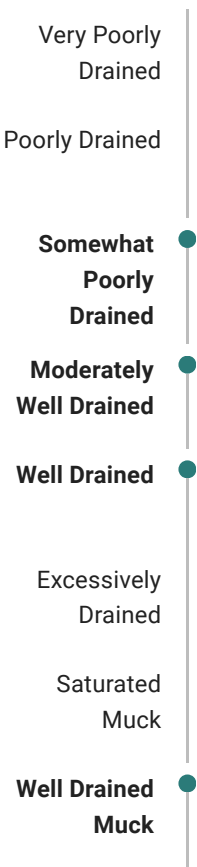


PLANT HARDINESS ZONE 7 DATASET

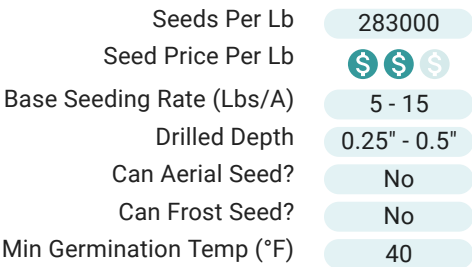
Growth Traits



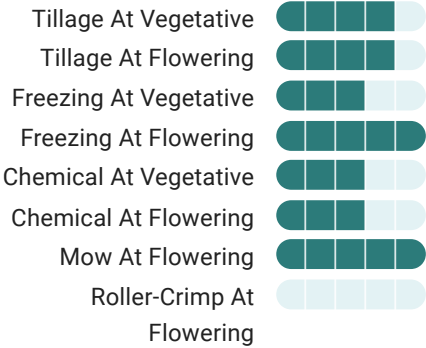
Soil Drainage



Planting



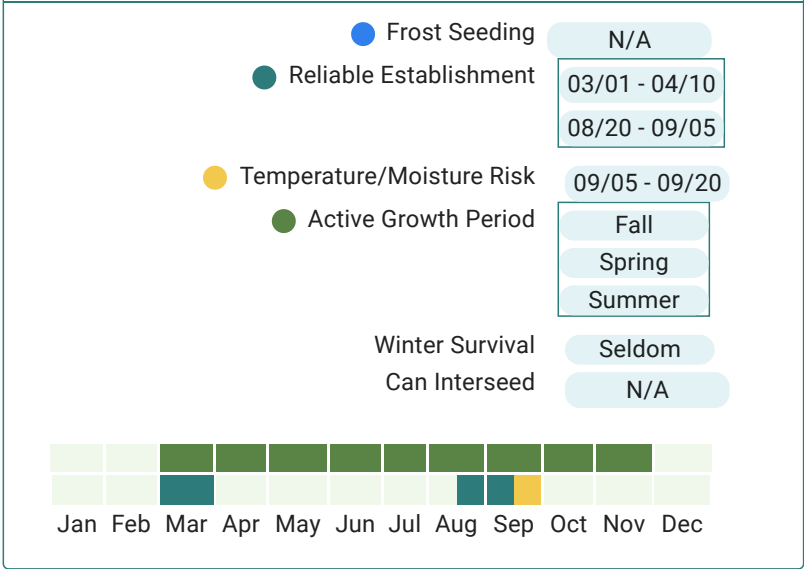
Termination





PLANT HARDINESS ZONE 7 DATASET

Planting and Growth Windows





## PLANT HARDINESS ZONE 7 DATASET

### Extended Comments

**Pollinators:** Useful to pollinators since it flowers early in the spring. Don't plant if your goal is honey production (fouls the taste of the honey).

**Nematodes:** Host for root-lesion nematode (*P. penetrans*).

**Planting:** In RI we found that 15 lbs/acre gave more biomass and better weed suppression when using mustard as a summer cover crop

**Basic Agronomics:** Dry matter highly dependent on planting and termination date and precipitation. For grazing purposes, restrict to 75% of total ration or mixing with a grass is recommended. High glucosinolates interfere with mineral metabolism. Nitrate poisoning is possible if fed to livestock.

**Termination:** if using as biofumigant terminate at pod fill (seed formed but still green) by flail mowing followed immediately by incorporation. Multiple species are called "mustard" - susceptibility to freezing in vegetative state varies widely.

**Weeds:** Many Brassicas have hard seed; Can bolt under certain conditions and become a serious weed if allowed to go to seed.

**Forage and Grazing:** Contains high levels of glucosinolates. Do not feed to livestock.

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

### References & Resources

**Spring Planted Cover Crops for Vegetable Rotations**, University of Delaware Cooperative Extension  
**Cover Crops and Green Manures (New England Vegetable Management Guide)**, University of Massachusetts Extension  
**Cover Crops, Brassicas**, University of Massachusetts Extension  
**Plant Cover Crops**, University of Maryland Extension  
**Spring Management of Overwintering Cover Crops – Don't Wait!**, Cornell University Cooperative Extension  
**Fall Mustard**, Cornell University Cooperative Extension  
**Early Spring Seasonal Cover Crops**, Cornell University Cooperative Extension  
**Late Summer Crucifers**, Cornell University Cooperative Extension  
**Spring Mustard**, Cornell University Cooperative Extension  
**Using Flowering Cover Crops for Native Pollinating Bee Conservation**, Penn State Extension