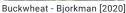


PLANT HARDINESS ZONE 4 DATASET

COVER CROP DESCRIPTION

Low-growing summer annual. Popular summer cover crop. Needs warm conditions, but very low tolerance to drought or high heat. Prefers light to medium textured well drained soils and performs poorly on heavy, wet, or compacted soil. Fine root system good for topsoil conditioning, but not subsoiling. Purported to be good for unlocking soil phosphorus (P), but that only works in calcareous soils. Tolerant of low pH (5.0). Excellent weed suppressor at high planting rates due to very fast growth (not allelopathy). Blooms and extrafloral nectaries excellent for pollinators and other beneficial organisms. High risk of reseeding if overmature: kill or mow within 7-10 days after first bloom. Sets seed faster than all other covers - if reseeding is a concern, don't grow in mixes. Easy to kill.







Buckwheat - Kelly Gill [2020]



Buckwheat - Allina Harris [2020]



Buckwheat - Kelly Gill [2020]



Buckwheat - Bjorkman [2020]



Buckwheat - Bjorkman [2020] Buckwheat - Bjorkman [2020]



GOALS



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

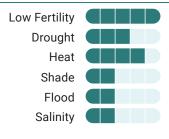


WEEDS

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

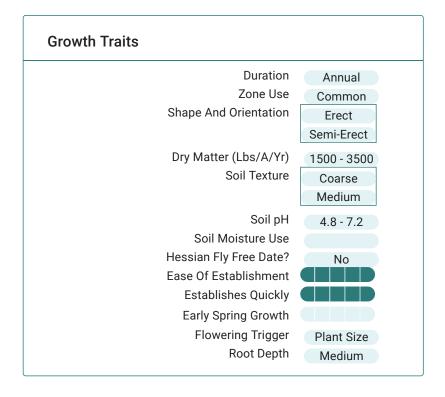


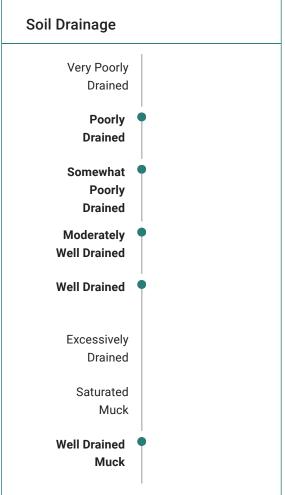
ENVIRONMENTAL TOLERANCES

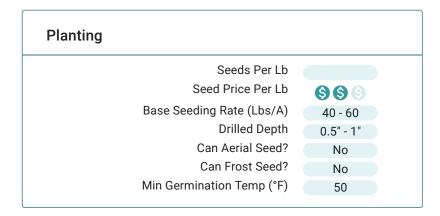


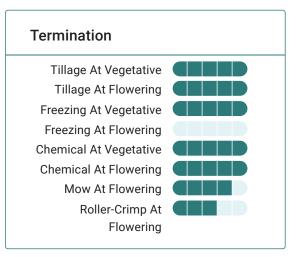


PLANT HARDINESS ZONE 4 DATASET



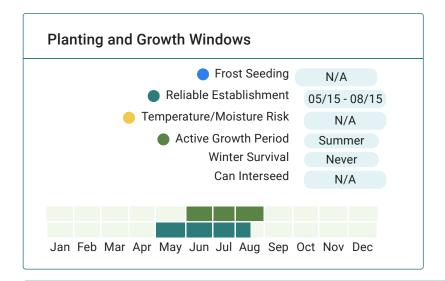








♠ PLANT HARDINESS ZONE 4 DATASET



Extended Comments

Forage and Grazing: Buckwheat causes photosensitivity and liver damage in livestock. Do not feed.

Environmental Tolerances: Does better than many species on low-P soils.

Insects: Can be combined with sunn hemp as summer cover crop. No obvious insect issues noticed through casual observation

Nematodes: Host for root-knot nematode.

Pollinators: Potential honey income. Top-rated cover crop for bees, along with phacelia.

References & Resources

Cover Crops and Green Manures, University of Vermont Extension

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

<u>Cover Cropping for Success</u>, University of Maine Cooperative Extension

Cover Crops for Home Gardens, University of Maine Cooperative Extension

<u>Using Green Manures</u>, Maine Organic Farmers and Gardeners Association

Selected Green Manures and Cover Crops for Maine, University of Maine

Cover Crops - What a Difference a Few Weeks Makes, Cornell University Cooperative Extension

Buckwheat, Cornell University Cooperative Extension

Early Summer Seasonal Cover Crops, Cornell University Cooperative Extension

<u>Mid and Late Summer Seasonal Cover Crops</u>, Cornell University Cooperative Extension