

PLANT HARDINESS ZONE 4 DATASET

COVER CROP DESCRIPTION

Excellent summer annual legume. Needs heat to grow well. Very heat and drought tolerant once established, deep taproot, tolerates low fertility. Some shade tolerance. Grows fast, good biomass and forage producer, high N fixation potential, good weed suppressor. Extrafloral nectaries key for beneficial insects. Some suppression for problem nematodes. Low reseeding and weed risk. Inoculate with appropriate Rhizobium spp.; cross-inoculates with peanut, sunn hemp. Many varieties available: use forage or cover crop cultivars, with bush types for short mixes, vine- or runner- types for tall mixes. Less predation by deer and woodchucks compared to soybeans.







Cowpea - Ackroyd [2020]



Cowpea - Salon [2020]

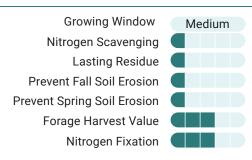


Cowpea - Ackroyd [2020]



Cowpea - Ackroyd [2020]

GOALS



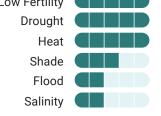
Penetrates Plow Pan **Reduces Surface Compaction** Improve Soil Organic Matter Increase Soil Aggregation **Good Grazing** Pollinator Food



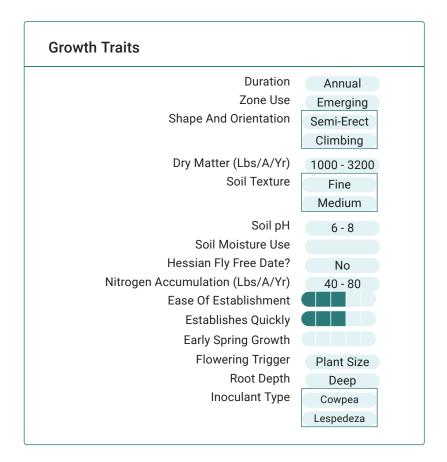
WEEDS

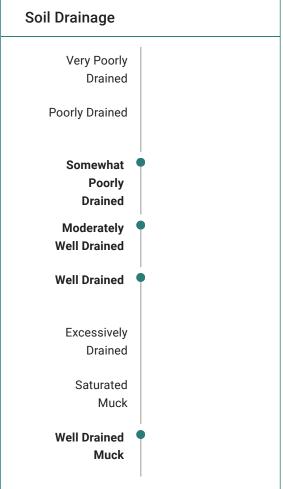
Residue Suppresses Summer Annual Weeds **Outcompetes Summer Annual Weeds** Suppresses Winter Annual Weeds Persistence Volunteer Establishment

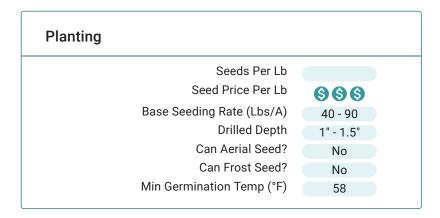
ENVIRONMENTAL TOLERANCES Low Fertility Drought

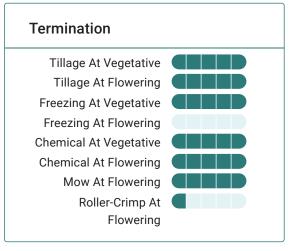


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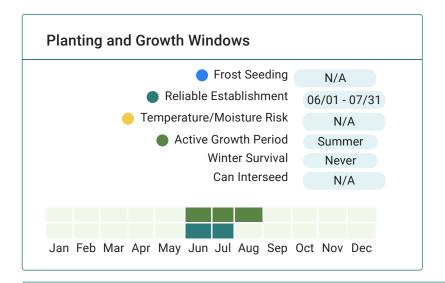








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Extended Comments

Weeds: Less competitive against summer annual weeds in northern hardiness zones.

Forage and Grazing: Good for forage harvest and grazing in areas with enough heat to allow it to put on biomass. Used in mixes as a summer rotational grazing crop.

Nematodes: Host for sting and stubby root nematodes; moderately resistant to root-knot nematode.

Pollinators: Has an extra-floral nectary that is attractive to pollinators and beneficial insects. Cowpea does not need to be in active flowering for pollinators to access this extra-floral nectary.

References & Resources

<u>Cover Crops and Green Manures</u>, University of Vermont Extension <u>Using Green Manures</u>, Maine Organic Farmers and Gardeners Association