

COVER CROPS

- Add organic matter to the soil
- Balance Nutrients
- Help Control Weeds
- Loosen Compacted Soil
- Control Erosion
- Attract beneficial insects

HARDY LEGUMES increase soil nitrogen and organic matter. Mow these cover crops in spring at or before flowering, then till them under.

CROP	TIME OF PLANTING	HARDINESS	GROWTH HEIGHT	SOIL IMPROVEMENT	APPLICATION RATE	COMMENTS
ALFALFA	Cool weather (Feb-May, August-October)	Long growing season, wide range of adaptation	13-16"	Very good nitrogen source, attracts pollinators, soil builder, deep roots allow better drainage and following root accessibility	½lb/1,000ft ²	Fast growing, excellent forage, grows best in soil pH 6.5-6.8, best when inoculated
COW PEA (BLACK EYED PEA)	Summer, late summer for green manure	25°F most heat adapted legume in U.S., drought resistant	13-36"	Suppresses weeds, excellent nitrogen source, build organic matter, prevent erosion and weeds	2lb/1,000ft ²	Better than clover or alfalfa on poor or acidic soils, flowers attract beneficial insects. Adds forage. Pods may attract stinkbugs in NC
CRIMSON CLOVER	Cool weather (spring, fall)	-10°F cold tolerant	18"	Deep rooting, great nitrogen source	½-2lb/1,000ft ²	Till into soil before goes to seed, edible flowers, treat with inoculants, adds excellent forage, flowers attract beneficial insects
DUTCH WHITE CLOVER	Cool weather (fall, late winter, early spring)	-20°F very cold tolerant	6-8"	Great nitrogen source, good erosion and weed preventer	½-1lb/1,000ft ²	Good for low pH soil, treat with inoculants, adds excellent forage
HAIRY VETCH	Fall (if well established in fall will remain dormant in winter until warm soil in spring)	-15°F cold hardy, drought tolerant when established, not tolerant to shade or flooding	24"	Increase nitrogen, build organic matter, fair weed and erosion preventer	2lb/1,000ft ²	Hardest annual legume, tolerates poor soil and pH 4.9-8.2, matures late, vigorous spring growth, adds forage, Seeds poisonous to poultry
SOY BEANS	Warm weather (May – July)	Frost sensitive to 30°F tolerates almost any soil	2-4'	Very good nitrogen source (up to 130lbs/acre) harbors beneficial insects, conditions topsoil, competes with weeds when mature	2-3lb/1,000ft ²	Edible Legume, slower growing than other beans, majority of roots in top 8" of soil, but some can reach 6', should be inoculated, need minimum soil temp 50-60 °F germinate
TILLAGE RADISH	Cool weather (Aug – Nov)	Winter kills when temps drop to 15°F	12-24"	Absorbs nitrogen and other key nutrients (including those in manure) and releases in spring April-May when crops need it most, very competitive with weeds (thick canopy)	2lb/1,000ft ²	As radish decays, void left in soil promotes greater air and water circulation and increased microbial action in soil, increases subsequent crop yield, Taproot reaches 30"+

COVER CROPS

- Add organic matter to the soil
- Balance Nutrients
- Help Control Weeds
- Loosen Compacted Soil
- Control Erosion
- Attract beneficial insects

GRASSES

grow quickly, increase organic matter, and improve the structure of compacted soils. Control erosion but don't increase nitrogen. Mow these annual grass cover crops in spring before seeds set, or till under.

CROP	TIME OF PLANTING	HARDINESS	GROWTH HEIGHT	SOIL IMPROVEMENT	APPLICATION RATE	COMMENTS
BUCKWHEAT	Summer, fall	32°F	36"	Phosphorous scavenger, excellent weed fighter	3lb/1,000ft ²	Fast growing, till after flowering before seed, decomposes rapidly, attracts beneficial insects
JAPANESE MILLET	Warm weather (April-August)	Frost sensitive, Well tolerant to wet and muddy soils, fairly drought tolerant when established	2-4'	Fibrous root system makes great smother crop, erosion protector, suppresses weeds, conditions topsoil	1lb/1,000ft ²	Fastest growing of all millets, tolerates frequent cutting, makes great forage/hay, most often used for duck food plots
RED WINTER WHEAT	Fall, winter (dormant over winter until soil warms in spring)	-15°F	24-48"	Heavy nitrogen scavenger, organic matter, weed fighter	2½lb/1,000ft ²	Young plants can withstand colder temperatures, requires fertile soil, avoid wet or low pH, till into soil in spring
RYE	Cool weather (Sept - Oct, germinates in 34-40°F)	Hardier than any other small grain except barley, grows well in wet cold climates	6-8'	Excellent nitrogen scavenger, soil builder, erosion and weed fighter	2lb/1,000ft ²	Taller and quicker than wheat, Great for cold weather poultry greens, pair with hairy vetch to offset nitrogen tie up or kill when young
SORGHUM SUDANGRASS	Warm weather (May-July)	32°F heat loving, very frost sensitive, can withstand drought by going dormant	5-12'	Reclaims alkaline soil, adds organic matter to worn soils, deep taproots increase soil drainage and fight erosion, great nitrogen scavenger	1lb/1,000ft ²	Tall, fast growth, mow/trim at 3'-4' for deeper roots and thicker stalks, soil pH 5-9
WINTER BARLEY	Cool weather (Sept-Feb, April-May, Aug-Oct)	17.6°F less hardy than winter wheat	13-36"	Prevent erosion, scavenge excess nitrogen, add organic matter	2-3lb/1,000ft ²	Tolerates alkaline soils, excellent erosion fighter