

COVER CROPS

MANY PRODUCERS HAVE DISCOVERED THE BENEFITS OF COVER CROPS.

A cover crop is a crop generally grown at times of the year when cash crops are not actively growing. Covers are planted primarily to reduce soil erosion, improve water infiltration, improve soil fertility, break up pest and disease cycles, sequester carbon, and improve overall soil health.

Cover crops are also used to manage excess water, improve water quality, provide wildlife habitat, and extend the grazing season. With a wide range of available species and characteristics, farmers can use covers to manage a broad spectrum of resource concerns.

Cover Crop Characteristics:

		Full seeding rate, lb/acre	Seeding Depth (in)	Reduce Erosion	Increase Soil Organic Matter	Scavenge Nutrients	Promote Biological Nitrogen Fixation	Suppress Weeds	Provide Supplemental Hay	Provide Supplemental Grazing	Rooting Depth/Plant Water Use	Reduce Surface Soil Compaction	Reduce Subsoil Compaction	Seed Size (Large or Fine)	Crop Type	Winter Survival	Salinity Tolerance	C:N Ratio	Mycorrhizal Fungal Association	Seeds/Lb.	Shade Tolerance
COOL SEASON BROADLEAF	Alfalfa	6.5	.25 - .75	G	G	G	Y	G	G	F	DH	G	G	F	CB	Y	P	L	M	210,000	F
	Brassica hybrids	7	.25 - .5	F	F	G	N	G	F	G	MM	G	G	F	CB	N	G	L	N	180,000	P
	Cabbage, African	5	.25 - .75	F	F	G	N	F	F	F	MM	G	G	F	CB	N	G	L	N	180,000	F
	Camelina, Winter	3	.25 - .5	F	F	F	N	P	P	P	ML	P	F	F	CB	S	P	L	N	400,000	P
	Canola	5	.25 - .75	F	F	G	N	G	F	F	MM	G	G	F	CB	S	G	L	N	140,000	F
	Clover, Balansa	5	.25 - .75	F	P	F	Y	P	P	F	SL	P	P	F	CB	N	P	L	M	500,000	F
	Clover, Crimson	15	.25 - .75	F	F	F	Y	P	F	F	SM	P	P	F	CB	S	P	L	M	150,000	F
	Clover, Red	5	.25 - .75	G	F	F	Y	F	F	F	SL	F	F	F	CB	Y	P	L	M	275,000	G
	Clover, Sweet	4	.25 - 1.0	G	G	F	Y	G	F	F	MM	G	G	F	CB	Y	F	L	M	260,000	G
	Collards or Kale	5	.25 - .5	F	F	G	N	G	F	G	MM	G	G	F	CB	N	G	L	N	175,000	F
	Fava beans	75	1 - 1.5	F	F	F	Y	F	G	G	DM	F	F	L	CB	N	F	L	P	2,500	P
	Flax	30	.25 - .75	F	F	F	N	P	P	P	SM	F	P	F	CB	N	P	H	H	80,000	P
	Lentils	30	1 - 1.5	P	P	P	Y	P	P	P	SL	P	P	F	CB	N	P	L	M	20,000	P
	Mustard	6	.25 - .75	F	F	F	N	G	F	P	MH	G	F	F	CB	N	P	L	N	140,000	P
	Peas	70	1.5 - 3.0	F	P	P	Y	F	G	G	SL	F	F	L	CB	N	P	L	M	3,500	F
	Phacelia	4	.25 - .5	F	F	F	N	P	P	P	DH	F	P	F	CB	N	P	L	M	225,000	F
	Radishes	8	.25 - .75	F	F	G	N	G	P	G	DH	G	G	F	CB	N	P	L	N	25,000	P
	Rapeseed	5	.25 - .75	F	F	G	N	G	F	G	MM	G	G	F	CB	S	G	L	N	140,000	F
	Sugar beets	4	.25 - .5	F	P	G	N	F	P	G	DH	G	G	F	CB	N	G	L	N	22,000	P
COOL SEASON GRASS	Turnips	4	.25 - .5	F	P	G	N	G	P	G	DH	G	G	F	CB	S	P	L	N	175,000	P
	Vetch, Chickling	50	.5 - 1.5	F	F	F	Y	F	F	P	SL	F	F	L	CB	N	P	L	M	2,500	F
	Vetch, Common	25	.5 - 1.5	F	F	F	Y	F	F	G	SM	F	F	L	CB	N	P	L	M	8,000	F
	Vetch, Hairy	15	.5 - 1.5	G	F	F	Y	F	F	F	SM	G	F	L	CB	Y	P	L	M	14,000	G
	Barley	50	.75 - 2.0	G	G	G	N	G	G	G	MM	G	F	L	CG	N	G	M	M	14,000	F
	Oats	70	.5 - 1.5	G	G	G	N	G	G	G	MH	G	G	L	CG	Y	G	H	M	16,000	G
	Rye, Cereal planted after Oct. 1	60	.75 - 2.0	G	G	G	N	G	G	G	MH	G	G	L	CG	Y	G	H	M	18,000	G
	Rye, Cereal planted on or before Oct. 1	40	.5 - 1.5	G	G	G	N	G	G	G	MH	G	F	L	CG	Y	G	M	M	15,000	F
	Ryegrass, Annual	15	.5 - 1.5	G	G	G	N	F	G	G	MM	G	F	F	CG	S	F	M	M	190,000	G
	Triticale	60	.5 - 1.5	G	G	G	N	G	G	G	MH	G	F	L	CG	N	G	M	M	15,000	F
WARM SEASON BROADLEAF	Wheat, Spring	60	.5 - 1.5	G	G	G	N	G	G	G	MH	G	F	L	CG	N	G	M	M	15,000	F
	Wheat, Winter	60	.75 - 2.0	G	G	G	N	G	G	G	MH	G	F	L	CG	Y	F	M	H	15,000	F
	Buckwheat	50	.5 - 1.5	P	P	F	N	F	P	P	SL	F	P	L	WB	N	P	L	N	19,000	G
	Cowpeas or Dry Beans	30	1 - 1.5	P	F	F	Y	P	P	F	SL	F	F	L	WB	N	P	L	M	4,000	F
	Safflowers	30	.5 - 1.0	F	F	G	N	F	P	P	DM	F	G	L	WB	N	F	M	M	15,000	P
	Soybeans	35	1 - 1.5	F	P	F	Y	F	F	F	SM	F	F	L	WB	N	P	L	M	3,000	F
	Sunflowers	7	.5 - 1.0	F	F	G	N	F	P	G	DM	F	G	L	WB	N	F	M	M	8,000	P
	Sunn hemp	15	1.5 - 2.0	F	F	F	Y	F	P	F	DM	F	F	L	WB	N	P	L	M	15,000	P
	Corn	12	1 - 1.5	G	G	G	N	G	F	G	DH	G	G	L	WG	N	P	H	H	2,500	F
	Millet, hay	15	.5 - 1.0	G	G	G	N	G	G	G	SL	G	F	F	WG	N	P	M	H	180,000	P
WARM SEASON GRASS	Millet, proso	25	.5 - 1.0	G	G	G	N	G	G	G	SL	G	F	F	WG	N	P	M	H	80,000	P
	Sorghum, Forage and Sudan Hybrids	15	.5 - 1.5	G	G	G	N	G	G	G	MM	G	G	L	WG	N	F	M	H	17,000	P
	Sorghum, Grain	5	.5 - 1.5	G	G	G	N	G	G	G	MM	G	G	L	WG	N	F	M	H	17,000	P
	Sudangrass	20	.5 - 1.5	G	G	G	N	G	G	G	MM	G	G	L	WG	N	F	M	H	25,000	P
	Teff grass	5	.13 - .25	G	G	F	N	F	G	G	SM	G	F	F	WG	N	P	M	H	1,000,000	N

SEEDING DATES:

- May 1 through August 5:**
Predominantly warm-season winter kill species
- Early Spring & After August 5:**
Predominantly cool-season winter kill species

August 1 through winter:
Species that do not winter kill

Seeding dates fluctuate annually:
Seeding dates may be adjusted up to 15 days by the District Conservationist based on local weather and site conditions. Be cognizant of potential green bridge that could happen if cool-season grass cover crop species such as wheat, oats, barley, or rye are planted near commercially grown cereal grain crops.

KEY TO RATING DESCRIPTIONS:

- SL** = Shallow rooted/Low water use **G** = Good
SM = Shallow rooted/Medium water use **F** = Fair
SH = Shallow rooted/High water use **P** = Poor
ML = Medium rooted/Low water use **L** = Low
MM = Medium rooted/Medium water use **M** = Medium
MH = Medium rooted/High water use **H** = High
DL = Deep rooted/Low water use **Y** = Yes
DM = Deep rooted/Medium water use **N** = No
DH = Deep rooted/ High water use **S** = Sporadic
N/A = Not Applicable

- CG** = Cool season grass
CB = Cool season broadleaf **Shallow** = 6-18 inches
WG = Warm season grass **Medium** = 18-24 inches
WB = Warm season broadleaf **Deep** = 24+ inches

CONSIDERATIONS:

- Alternate cash and cover crop type to maximize plant diversity.
- Do you include warm season species or not?
- Would you like any species to overwinter?
- Review the “half-life” of previously applied herbicides.
- Seeding timing options



SCAN FOR MORE COVER CROP INFO!

HIDDEN BENEFITS: *What lies beneath our feet*

