

Cover Crop	Capture, recycle, redistribute nutrients in the soil profile	Increase Soil O.M.	Erosion Reduction	Weed suppression	Provide supplemental grazing	Promote biological nitrogen fixation	Minimize/reduce soil compaction	Seed size (Large or Fine)	Plant Water Use	Crop Type	Seeding dates	Minimum germination temperature	Hardiness through zone	Seeding Rate	Seeds/pound	C:N Ranking	Attract Beneficial Insects	Mycorrhizal fungi association	C:N Ratio	Comments
Alfalfa	F	E	G	F	E	VG	VG	F	H	CS—Legume	3/15-4/15 or 8/22-9/12	37		8-15	147,000	L	E	H	13	
Barley (Winter)	VG	E	E	VG	E	N	VG /1	L	M	CS—Grass	9/10-10/31	35	7	50-75	13,600	M	G	L	40	Tolerates moderately alkaline conditions, but does poorly in acidic soil <pH 6.0
Barley (Spring)	VG	VG	G	VG	E	N	VG /1	L	M	CS—Grass	3/15-5/15	35	7	50-80	13,600	M	G	L	40	Tolerates moderately alkaline conditions, but does poorly in acidic soil <pH 6.0
Buckwheat	F	G	F	G	F	N	F	F	L	WS—Broadleaf	7/1-8/15	50	NFT	20-75	20,400	L	E	N	42	Summer smother crop; breaks down quickly, sets seed quickly
Clover, Berseem	VG	VG	VG	E	E	E	F	F	L	CS—Legume	8/1-9/15 or 11/1-5/15	42	7	8-12	206,000	L	VG	M	21	Multiple cuttings needed to achieve peak N
Clover, Crimson	F	G	G	G	G	G	VG	F	M	CS—Legume	3/15-5/15 or 8/1-9/1	42	7	10-15	149,760	L	VG	M	20	Establishes easily, grows quickly if planted early in fall, matures early in spring
Clover, Red	F	VG	VG	VG	VG	VG	VG	F	L	CS—Legume	3/15-5/15 or 8/15-9/15	41	4	8-12	272,160	L	VG	M	19	Excellent forage, easily established, widely adapted (preference to areas where corn grows)
Clover, Subterranean	F	VG	VG	E	VG	E	P	F	M	CS—Legume	3/15-5/15 or 8/1-9/15	38	7	10-20	70,000	L	VG	M	13	Strong seedlings, quick to nodulate. Cultivars vary widely.
Clover, White	F	G	VG	VG	E	E	F	F	L	CS—Legume	8/15-9/15	42	4	3-9	776,000	L	VG	M	18	Can be invasive, persistent after 1st year.
Corn	E	VG	VG	VG	E	P	G	L	H	WS—Grass	7/1-8/1	45	NFT	20-26	2,500	H	P	M	50	
Cowpeas	F	VG	G	G	VG	E	G	L	L	WS—Legume	6/1-7/15	58	NFT	20-50	3,600	L	VG	M	20	Cultivar effects season length, habit.
Ethiopian cabbage	G	G	G	G	F	N	F	L	L	CS—Broadleaf	3/15-4/15 or 8/22-9/12	40		3-7	145,000	L	F	L	41	
Fava bean	G	VG	G	G	G	Y	G	L	L	CS—Legume	3/15-4/15 or 8/22-10/15	40		60-75	3,000	L	G	H	20	May be host for root-knot nematode, not to be used in rotation w/potatoes.
Flax	G	F	F	P	F	N	G	S	M	CS—Broadleaf	4/20-5/10	48	5	20-40	81,000	H	G	H	27	
Guar	F	F	G	F	F	G	G	L		WS—Legume	6/1--7/15	60	NFT	5-10	15,000	L	VG	M	0	Drought tolerant
Kale/Collards	VG	G	G	VG	VG	P	E	F	M	CS—Brassica	8/1-9/12	40	7	5-9	175,000	L	G	N	9	
Lentils, Spring	F	F	F	F	G	G	F	F	L	CS—Legume	3/15-4/15	41	8	30-80	9,000	L	F	M	20	
Lentils, Winter	F	F	F	F	G	G	F	F	L	CS—Legume	8/20-10/15	41	7	30-80	9,000	L	F	M	20	
Medics	F	G	G	VG	VG	G	G	F	L	CS—Legume	3/15-4/15	45	7	10-14	266,000	L	F	M		Perennials can easily become weedy.
Millet, German	G	VG	VG	VG	VG	P	G	L	L	WS—Grass	5/15-8/15	50	7	15-20	220,000	M	F	H	40	
Millet, Pearl	VG	E	E	E	E	P	E /1	F	L	WS—Grass	5/15-8/15	65	7	20-25	82,320	M	F	H	54	
Millet, Proso	G	VG	VG	VG	VG	P	G	F	L	WS—Grass	5/15-8/15	50	7	20-25	80,000	M	F	H	40	
Mung bean	F	F	G	F	G	VG	G	F	M	WS—Broadleaf	5/1-7/15	59	NFT	15-20	10,000	L	VG	M	41	
Mustard	G	G	G	VG	P	P	G	F	M	CS—Brassica	4/20-5/10 or 8/15-9/15	40	7	3-7	180,000	L	F	N	21	Winter-kills at 25F.
Oats, Spring	VG	VG	VG	VG	E	P	G	L	M	CS—Grass	3/15-5/1 or 8/1-9/1	38	8	30-60	19,600	M	F	L	46	Prone to lodging in N-rich soil.
Oats, Winter	VG	VG	VG	VG	E	P	G	L	M	CS - Grass	9/20-10/31	38	4	30-64	14,000	M	F	L	46	Best suited to the south east part of the state.
Pea, Field	F	F	G	F	VG	VG	G	L	L	CS—Legume	4/1-5/10 or 8/1/-9/15	41	7	50-80	1,840	L	G	M	12	Biomass breaks down quickly.
Pea, Winter	F	F	G	F	VG	VG	G	L	L	CS—Legume	4/1-5/10 or 8/1/-9/15	41	7	50-80	1,840	L	G	M	12	
Radish, Grazer	VG	G	G	VG	VG	P	E	F	H	CS—Brassica	7/15-8/20	45	6	4-8	50,000	L	F	N	20	N released rapidly. Winter-kills at 25F.
Radish, Oilseed	E	G	G	G	G	P	E	F	H	CS—Brassica	7/15-8/20	45	6	4-8	34,000	L	F	N	20	N released rapidly. Winter-kills at 25F.
Rapeseed/Canola	VG	G	G	G	VG	P	G	F	M	CS—Brassica	3/15-4/15 or 8/22-9/12	41	7	3-7	156,960	L	F	N	25	Suppresses <i>Rhizoctonia</i>

Ratings
E = Excellent
VG = Very Good
G = Good
F = Fair
P = Poor

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Rye, Cereal	E	E	E	E	E	P	E/1	L	H	CS—Grass	9/15- 10/31	34	3	55-100	18,160	M	F	L	40	Tolerates triazine herbicides.
Ryegrass, Annual	VG	VG	E	E	VG	P	VG	L	M	CS—Grass	3/15-5/15 or 8/1-9/15	40	6	12-20	190,000	M	F	L	28	Heavy N and H2O user; cutting boosts dry matter significantly.
Safflower	G	F	F	F	P	P	E	L	H	WS—Broadleaf	4/20-5/10	40	9	15-20	13,600	M	E	M	24	
Sorghum, Forage	E	E	E	E	VG	P	E/1	L	M	WS—Grass	5/15-8/15	65	NFT	10-25	17,280	M	G	H	50	
Sorghum, Sudan	E	E	E	E	E	P	E/1	L	M	WS—Grass	5/15-8/15	65	NFT	15-30	17,280	M	G	H	42	Mid-season cutting increases yield and root penetration.
Soybean	F	VG	G	F	E	VG	G	L	M	WS—Legume	6/1-7/15	50	5	30-60	3,000	L	VG	M	40	
Sunflower	VG	F	F	F	F	P	E	L	H	WS—Broadleaf	5/15-8/16	48	3	3-8	7,500	M	E	M	45	
Sunn Hemp	F	VG	VG	VG	F	E	VG	L	M	WS—Legume	6/1-7/15	68	9	15-20	15,000	H	VG	L	42	
Sweet Clover	F	G	G	G	VG	E	VG	F	M	CS—Legume	8/1-9/15 or 11/1-5/15	42	4	6-10	258,560	L	Y	M	18	Tall stalks, deep roots in 2nd year. Hard seed a possibility.
Teff grass	G	G	G	G	G	P	F	F	M	WS—Grass	6/1-7/15	65	NFT	5-7	1,300,000	M	VG	N		
Triticale, Spring	VG	E	E	E	E	P	E/1	L	H	CS—Grass	3/15-5/1 or 8/20-9/15	38	4	50-90	22,700	M	F	L	21	Spring types available.
Triticale, Winter	VG	E	E	E	E	P	E/1	L	H	CS—Grass	9/15-10/31	38	4	50-90	22,700	M	F	L	21	Fall types available.
Turnip	VG	G	G	E	VG	P	G	F	H	CS—Brassica	7/15-8/20	45	8	3-7	192,800	L	F	N	31	
Hybrid Forage Turnip	E	G	VG	VG	VG	P	VG	S	H	CS—Brassica	7/15-8/20	45	8	3-7	192,800	L	F	N	31	
Vetch, Chickling	F	G	G	F	P	VG	F	L	L	CS—Legume	3/15-4/15 or 8/1-8/21	45	5	50-60	2,500	L	E	M	15	Host for root knot nematode, soybean cyst nematode and root-lesion nematode.
Vetch, Common	F	G	G	G	P	VG	G	L	M	CS—Legume	3/15-5/1 or 8/1-9/1	68	8	15-20	8,000	L	VG	M	15	
Vetch, Hairy	F	G	G	G	P	E	G	L	M	CS—Legume	8/1-9/15 or 11/1-5/15	60	4	15-20	16,300	L	VG	M	15	Not recommended for use before soybeans (Soybean cyst nematode host)
Vetch, Woollypod	G	G	VG	VG	G	E	VG	L	M	CS—Legume	8/20-9/15	50	7	12-18	10,000	L	F	M	15	Overgrazing can be toxic. Hard seed a possibility.
Wheat, Spring	VG	E	E	E	E	P	E/1	L	H	CS—Grass	3/15-5/15	39	4	40-60	11,360	M	F	L	38	Heavy N and H2O user in spring, during stem growth.
Wheat, Winter	VG	E	E	E	E	P	E/1	L	H	CS—Grass	9/15-10/31	39	4	40-60	11,360	M	F	L	38	Heavy N and H2O user during stem growth.

/1 Surface compaction

Additional county specific seeding information can be found at the following site:

<https://midwestcovercrops.org/covercroptool/>

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