

GRAINS FORAGES COVER CROPS

SEED

GUIDE







Welcome

Treat your soils like you treat your bank

account. Cover crops are investments for the future. Whether you want to suppress weeds, increase organic matter, stop soil erosion, or extend your grazing period, let us help you achieve your goals. Custom blends are a great way for us to provide specific mixes that are unique to your acres.

Kevin Johannsen Cover Crop Manager



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Undoubtedly, a few factors come to mind when you're choosing the right seeds. We know three things rise to the top: performance, quality, and your bottom line. Innovative farming requires innovative products.

That's why we created Harvest Bounty[®].







A cover crop is a plant used to improve soil health, control pests and diseases, reduce weeds, and manage soil erosion. By improving the soil, you will improve the health and productivity of the soil, and the crops produced from it.



REASONS TO PLANT A COVER CROP



The 3 most common reasons used to promote cover crops are:

Soil organic matter improvement. Modern high tillage farming systems have depleted the original soil organic matter. By introducing a cover crop to the rotation, a grower can help arrest this decline and reverse this trend over time. For every 1% increase in SOM, the water holding capacity of the top 6" inches of soil is increased by 20,000 gallons or as much as 6%.

Soil nutrient improvement is usually associated with legumes in the cover crop fixing nitrogen, but the addition of a cover crop releases other nutrients from the soil as the plant material breaks down as well.

Protecting soil from erosion. The rate of soil erosion depends on many factors, including the soil's makeup, vegetation, and the intensity of wind and rain. By leaving soil exposed you're more susceptible to environmental and human erosion effects which in turn reduces the quantity and quality of the soil's ecosystem. Soil type, quality, and texture all influence the erodibility of a field's soil. Having vegetation in place will help buffer the impact water and wind have on your fields.



SORGHUM

Warm-season annual options produce low input, high yielding forages as an alternative to corn silage. There are multiple varieties of sorghum available including grain, forage, and sudangrass. Also, various traits are available including conventional, hybrid, and BMR. BMR (Brown Midrib) increases digestibility and is highly palatable.

SORGHUM-SUDANGRASS

- · Good growth, 6 ft tall or taller with great re-growth potential
- Heat and drought tolerant
- Versatile options to either hay, graze, and/or chop

FORAGE SORGHUM

- Highest yielding potential
- Longer maturing, single-cut system
- Harvest at soft dough stage
- Best silage option

ALFALFA

Ideal Planting Conditions:

- Firm seed bed
- Pack or roll if possible
- Plant in early spring or late fall

Nurse Crop Potential:

- Pair with oats, barley, or triticale in early spring plantings to help with weed suppression.
- Also plant with cool-season grasses such as orchardgrass or ryegrass to maximize yield and dry-down potential.
- Available in various trait and disease packages, such as Conventional, RoundUp Ready[®], and Organic in a wide variety of winter and fall dormancy options.







HARVEST BOUNTY COVER CROP MIXES

Take control of your operation's success! Set yourself up to meet your goals and exceed your yield potential. Create a custom blend to manage these common issues naturally.

- Provide needed winter cover
- Maximize weed suppression

- Create erosion control
- Bridge nutrient gap with supplemental grazing
- Manage nutrient cycle and scavenge

From one acre to multi-acre operations, the complexity and diversity of available cover crop options, the possibilities are endless to produce long-term, beneficial results.

EXAMPLES OF 2-SPECIES BLENDS:

Rye & Radish	Used for winter cover & erosion control
Oats & Clover	Used for nutrient scavenge & supplement grazing

EXAMPLES OF MULTI-SPECIES BLENDS:

Radish, Flax, Turnip, Clover, Oats	Used for nutrient scavenge & supplement grazing

Rye, Winter Peas, Hairy Vetch, Radish, & Rapeseed Used for weed suppression & winter cover



Cover Crops Can Fulfill Multiple Tasks

- Suppress weeds
- Allow field access for winter operations
- Address soil moisture issues
- Increase diversity within the field
- Address environmental regulations



SMALL GRAINS & FORAGES

		Seeding Rate Ib/A	Seeding Depth inches	Planting Range
Barley - Spring Forage	Beardless spring barley developed primarily for forage, commonly planted as hay or a silage crop. Will be taller and leafier than other barley varieties that is quick maturing and excels in double cropping scenarios. Produces fine-stemmed hay that will cure easily and be highly palatable to all classes of livestock. Drought tolerant.	75 - 100	1⁄2 - 1 1⁄2	March - May
Millet - German Foxtail & White Wonder Foxtail	Fast-growing, annual grass that can reach 3-5' tall and be ready to cut in 50-60 days. Has a very fine stem that is easy to hay and highly palatable to livestock. This leafy variety is commonly planted as a single-cut hay millet. Very drought tolerant and will still grow rapidly during hot summer conditions.	20 - 25	1⁄2 - 3/4	Early June - Mid July
Millet - Japanese Millet	Warm-season annual grass commonly grown for forage. It grows up to 5' tall and has a slightly coarser stem than other hay millets. Displays good regrowth persistence in a multi-cut haying or grazing scenario. More tolerant to flooding than other summer annual forage and can grow in heavy, wet soils - sometimes referred to as Duck Millet	20 - 25	1⁄2 - 3/4	May - July
Millet - Pearl *BMR Varieties available	Warm-season annual grass desirable as forage due to its high leaf to stem ratio and high yield potential. Its coarser stem makes it more comparable to a sorghum-sudangrass than to other common hay millets. Will regrow following cutting or grazing and can be used in a multi-harvest scenario. Drought hardy and produces well in light or sandy soils.	20 - 25	1⁄2 - 1	Early June - Mid July
Oats - Jerry (VNS)	Cool-season oat for forage and/or cover cropping. Very versatile as a cover or nurse crop for Alfalfa or w/ Peas and can be chopped for livestock feed. Tolerant to cold and fast establishing.	100	1 ½ - 2	March-April / Aug-Sept
Oats - Goliath	Cool-season multi-purpose oat that can be used for grain production, forage, or straw. Goliath oats are aptly named because of their height. Has a very high groat percentage with average protein content. Works well as a nurse crop for Alfalfa or Peas. Performs very well in dry conditions and are of the top-yielding varieties in Western Climates.	100	1 ½ - 2	March-April / Aug-Sept
Piper Sudangrass	Warm-season annual grass with finer stems, prolific tillering, and palatability make this product ideal for hay production, grazing, green chop, silage, or baleage. Rapid growth and lower prussic acid content than sorghum sudangrass that produces large amounts of organic matter and suppresses weeds.	15 - 25	3/4 - 1 1⁄4	Early June - Mid July
Cereal Rye	Winter annual small grain commonly planted as a cover crop and also widely used as forage for livestock. Most winter hardy of any winter annual species. Should be planted in the fall when conditions will allow it to germinate before entering a dormant winter period in which it will vernalize.	60 - 120	1 - 1 1⁄2	Aug - Oct
Triticale *Spring or Winter varieties available	A hybrid, annual cereal grain developed through a cross between wheat and rye. Rye's growth, vigor, and cold tolerance combined with Wheat's feed quality and palatability make this a high-yielding option for forage or hay production.	80 - 100	1 - 2	Aug - Sept
Wheat *Spring or Winter varieties available	Annual cereal grain commonly planted for forage or grain production. When planted in the winter, this late-maturing grain will have an extended period of vegetative growth in the spring that is correlated with higher forage quality compared to other winter annual small grains. Spring varieties available for areas susceptible to winter-kill.	80 - 100	1 - 1 ½	Early spring or Mid-late fall



BROADLEAVES

	Full Seeding Rate Ib/A	Mix Seeding Rate Ib/A	Ideal Seeding Depth Inches	Seed Size	Nitrogen Fixation	Grazing	Reduction of Soil Compaction	Planting Range			
Buckwheat	50	15 - 25	1⁄2 - 1	Medium	No	Poor	Poor	June - July			
(WS)	Quick-growing, broadleaf summer annual. Very competitive with tough weeds like giant ragweed and Canada Thistle. Residue breaks down rapidly. Thrives on nutrient deficient soils.										
Flax (CS)	20	Variable	1/2 - 3/4	Medium	No	Poor	Poor	Early Spring - August			
	Used to diversify cover crop mixtures at nearly any point in the growing season. High level of lignin makes it a residue-building species that will not be highly selected for by grazing livestock.										
Sunflower	7	1 - 2	1 - 1 ½	Large	No	Good	Good	April - Aug			
(WS)	Fast growing summer annual best used for weed suppression. Extensive root system breaks up compaction. Attractive flowers for pollinators tall providing a large amount of biomass back into the soil to increase soil organic matter.										

BRASSICAS

	Full Seeding Rate Ib/A	Mix Seeding Rate Ib/A	Ideal Seeding Depth Inches	Seed Size	Nitrogen Fixation	Grazing	Reduction of Soil Compaction	Planting Range			
Forage	Planting Range	1 - 3	1⁄4 - 1⁄2	Small	No	Good	Good	March - Early October			
Collards	rds One of the most winter-hardy brassicas available. Thrives under a wide range of conditions, is drought tolerant, and excellent nutrients remaining from the previous crop.										
Kale	4	1 - 2	1⁄4 - 1⁄2	Small	No	Good	Good	March - May / July - Sept			
	Economical, cold-t frost tolerant.	Economical, cold-tolerant choice for grazing. Highly palatable and can be grazed late into fall. Prefers well-drained soils rich in organic matter. Is frost tolerant.									
Cover Crop	8	2 - 3	1/4 - 1/2	Small	No	Good	Good	Aug - Sept			
Radish		iccumulates leachabl ir fall or spring tillage		soil, improv	ves infiltration, a	and mitigates	compaction. Plan	ts break down completely by			
Rapeseed	5	Variable	1/4 - 1/2	Small	No	Good	Good	Aug - Early October			
			hat can be utilized in ica family to flower a					brassica is desired because it			
Purple Top	5	1 - 2	1⁄4 - 1⁄2	Small	No	Good	Good	March - May / July - Sept			
Turnip		Hardy, large-rooted brassica that produces abundant high quality forage below and above ground. Best used for grazing or as a cover crop - ready to graze in 60-90 days!									
Mustard	8	3 - 5	1⁄4 - 1⁄2	Small	No	Good	Good	March - May / Aug - Sept			
	Economical choice	for cover cropping.	Very fast growing. Th	rives in cool	ler conditions ar	nd is easy to e	stablish when su	fficient moisture is available.			
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COOL-SEASON LEGUMES

	Full Seeding Rate Ib/A	Mix Seeding Rate Ib/A	Ideal Seeding Depth Inches	Seed Size	Nitrogen Fixation	Grazing	Reduction of Soil Compaction	Planting Range			
Balansa Clover	10	1-4	1⁄4 - 1⁄2	Small	Yes	Good	Good	Feb - Mar / Aug - Sep			
	Quick establishing, annual legume that is more cold tolerant than crimson clover. Adapted to a wide range of soil types.										
Berseem Clover	15	2-8	1⁄4 - 1⁄2	Small	Yes	Good	Poor	May - June / Aug - Oct			
clovel	Fast-growing annu	al for quick biomas	s. Slightly more cold	tolerant tha	an crimson but	usually winte	er kills. Excellent ea	arly fall cover.			
Common Vetch	20	10-15	1⁄2 - 1 1⁄2	Medium	Yes	Good	Fair	Aug - Sept			
	Viney legume w/ c	ompound leaves. E	xcellent candidate fo	r aerial app	lication. Rapid	growth make	es it an excellent w	eed suppressant.			
Crimson Clover	15	2-8	1⁄4 - 1⁄2	Small	Yes	Good	Poor	May - June / Aug - Oct			
Clovel	Summer annual, v	ery versatile legum	e cover crop w/ exce	ptional bior	nass and nitro	gen productio	on. Prefers well dra	ined soils.			
Fava Bean	80	10-30	1 - 1 ½	Large	Yes	Fair	Fair	Early Spring / Aug - Oct			
	Tall, bushy annual heat or drought we		ge for hay or silage.	Adaptable t	o most soil typ	es but thrives	s under cool, wet co	onditions. Does not tolerate			
Field/	120-180	40-80	1 ½ - 2	Large	Yes	Good	Poor	March - April / Aug - Sept			
Forage Pea	Offers excellent fo	rage quality for gra	zing or hay. Avoid we	et ground, p	refers cool wea	ather. Good c	ompanion to small	grains.			
Hairy Vetch	25	10-15	1⁄2 - 1	Medium	Yes	Good	Fair	Early Spring / Aug - Oct			
			g system that works v s the potential to wit			sion control.	Rapid growth make	s it an excellent weed			
Medium	10	2-8	1⁄4 - 1⁄2	Small	Yes	Good	Fair	Feb - May / July - Aug			
Red Clover	Biennial or short-l cover crop	ived perennial that	is very versatile whil	e producing	, high quality f	orage. Used f	or hay, pasture, sil	age, soil improvement, or			
Winter Pea	70	10-30	1 ½ - 2	Large	Yes	Good	Poor	March - April / Aug - Sept			
	Prefers cool weath	er and well-draine	d soils, sensitive to h	eat and hur	nidity, and can	withstand co	older autumn temp	s than field peas.			





COOL-SEASON GRASSES

	Full Seeding Rate	Mix Seeding Rate Ib/A	Ideal Seeding Depth Inches	Seed Size	Nitrogen Fixation	Grazing	Reduction of Soil Compaction	Planting Range			
Annual Ryegrass	20	6-10	1⁄4 - 1⁄2	Small	No	Good	Fair	Fall			
Nycgiuss	Rapid growing with an extensive root system that builds soil structure. Single year forage production, heads out early-to-mid-summer and usually winter kills in northern zones. Well adapted to heavier soil types.										
Italian Ryegrass	20	12	1⁄4 - 1⁄2	Small	No	Good	Fair	March-May / August (Late fall grazing)			
			development, quick r minated. Behaves as				not head out in the	e seeding year unless a			
Perennial Ryegrass -	15	10	1/4 - 1/2	Small	No	Good	Good	March - May / August			
Forage			erance. Relatively hig aylage in mixture wi			value. Grows	from 1-2ft tall. Rec	over rapidly and tillres			
Forage Barley	80	20-40	1½ - 2	Large	No	Fair	Fair	Early Spring			
			r forage. Cool-seasor ng, and will be ready					op. Taller and leafier than e same time.			
Spring Barley	80	-	1½ - 2	Large	No	Fair	Fair	March - May			
	Cool season, annu option.	al cereal grain. Prir	narily grown for graii	n, forage, or	cover croppin	g. Great add	ition to wildlife mix	es and a solid nurse crop			
Orchardgrass	12	5	1⁄4 - 1⁄2	Small	No	Good	Fair	March-May / August (Late fall grazing)			
	A bunch-type, tall § in pasture and hay		on perennial grass th	a regrows q	uickly with goc	od winter har	diness and drought	tolerance. Commonly used			
Timothy	8	1-2	1/4 - 1/2	Small	No	Good	Fair	March-May / August (Can be frost seeded)			
			son grass well adapt o w/ Alfalfa or clover		oper Midwest.	Very winter-ł	nardy and palatable	e. Better for hay crop than			
Wheatgrass - Intermediate	12	varied	1⁄4 - 1⁄2	Small	No	Good	Good	March-Mid May / August			
memeulate	A long-lived, cool-s alfalfa. Responds v	eason grass with s vell to irrigation in	hort rhizomes and a a single cutting syste	deep-feedir m and will (ig root system. outyeild smoot	Produces go h brome.	od hay yields, both	individually and with			
Bromegrass - Smooth	15	5	1/4 - 1/2	Small	No	Good	Good	February - May / July-Aug (Can be frost seeded)			
5	Sod-forming and v pastures.	ery persistent. Exce	llent for erosion mai	nagement o	n slopes. Resis	tant to droug	ght and temperature	es. Best for long-term			
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WARM-SEASON LEGUMES

	Full Seeding Rate Ib/A	Mix Seeding Rate Ib/A	Ideal Seeding Depth Inches	Seed Size	Nitrogen Fixation	Grazing	Reduction of Soil Compaction	Planting Range				
Cowpea	50	25	1 - 1 ½	Large	Yes	Good	Fair	June - Aug				
	Highly productive warm-season, annual legume that works well in pastures, hay and silage. Rapid germination and growth quickly shade the ground aiding in weed control. Great protein source!											
Mung Bean	25	Varied	1 - 1 1⁄2	Large	Yes	Fair	Fair	June - Aug				
	Warm season legu	ime planted after si	mall grain harvest. D	rought and	heat tolerant c	omparable to (cowpeas.					
Faba Bean	50	Varied	1⁄2 - 2	Medium	Yes	Good	Good	August - Oct				
	Tall, bushy annual	Tall, bushy annual legume. Large taproot breaks up compaction. Good forage for hay or silage.										
Sunn Hemp	25	8	1⁄2 - 1	Large	Yes	Fair	Good	June - Aug				
	Tall-growing warr	n-season annual le	nume that is quick or	owing with	tremendous hi	iomass and N-f	fiving canacity Termin	ate crop at first flower to				

Tall-growing, warm-season annual legume that is quick growing with tremendous biomass and N-fixing capacity. Terminate crop at first flower to avoid fibrous stalks

For Pricing and Availability please email SeedHouseOrders@wilburellis.com or call (402) 336-1250

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