




















COVER CROPS | BLENDS

Item Name Description	Soil Accommodations	Planting Range	Drilling Depth	Seeding Rate	Mix Definitions
HB TWO TALL OATS Blend of a forage and dual purpose oats. Forage oats are late-maturing with a high leaf-to-stem ratio. Dual purpose oats produce grain quickly and cure easily for hay harvest. The grazing/harvest flexibility gives producers the flexibility they need.	Fertilize for expected yield at a rate of 9 lbs of N, 11 lbs P, 45 lbs K per ton produced.	Early spring. Can tolerate any light frost.	1 1/2"  1 3/4"  2" 	Drill: 80 lb/ac	50/50 blend of forage and dual purpose oats
HB COOL BALANCE FLEX Cool-season blend for late-season grazing and building residue to create organic matter.	If fertility is low, apply 25-50 lb/ac of N.	Late summer - Early fall	1/2" 	Drill: 20 lb/ac Broadcast: 25 lb/ac	Purple Top Turnip 25%, Cover Crop Radish 25%, Flax 15%, Oats 30%, Rapeseed 5%
HB BALANCE FLEX Blend that can be grazed as soon as there is adequate growth with no toxicity issues and grazed evenly. It also works to create residue and reduce compaction.	If fertility is low, apply 25-50 lb/ac of N.	Mid/Late summer. Minimum of 45-60 days growth before a frost.	1/2" 	Drill: 12 lb/ac Broadcast: 15 lb/ac	Turnip 30%, Cover Crop Radish 20%, Sorghum Sudangrass 25%, Flax 10%, Cowpeas 15%
HB KS GRAZER Blend that provides good nutrient value to grazing animals all season long, even in drier conditions. The sorghum sudan provides volume while the cowpeas, collards, and chicory bring persistent growth due to their deep roots. All varieties in the blend bring good nutrient value if it is grazed regularly.	Adaptable to moist soil types. Is drought tolerant.	March - May	1/2"  1"  1 1/2" 	Drill: 25 lb/ac Broadcast: N/A	Cowpeas 9%, BMR Sorghum Sudan 20%, Goliath Oats 36%, Forage Collards 4%, Radish 4%, 4010 Forage Peas 8%, Chicory 1%, Okra 8%
HB KS COVER CROP Fast growing blend that can be seeded late in the season. The drought resistance in the varieties allows the later planting date to still yield a high volume of biomass. This adds organic matter back into soils. Also provides a good nutrient value for grazing animals.	Adaptable to most soil types. Is drought tolerant.	March - May, August - September	1/2"  1"  1 1/2" 	Drill: 25 lb/ac Broadcast: N/A	Cowpeas 16%, Mung Beans 8%, Foxtail Millet 4%, Spring Oats 36%, Sorghum Sudan 11%, Radish 4%, Rapeseed 2%, Sunflower 4%, Buckwheat 12%, Chicory 1%, Okra 3%
HB DEEP ROOTS MIX Mix that sends deep tap roots down to alleviate compaction. Can be grazed, however recommend to supplement livestock due to high moisture content.	If fertility is low, apply 25-50 lb/ac of N. If unwanted grasses emerge, use clethodim when grasses are 2-4" tall.	Late summer - Early fall. Can tolerate light frost and continue to grow in the fall.	1/2" 	Drill: 8 lb/ac Broadcast: 10 lb/ac	Cover Crop Radish 40%, Rapeseed 30%, Purple Top Turnip 30%
HB NUTRIENT 7 BLENDER Diverse blend used to improve soil for next year's cash crop. Fixes nitrogen, builds organic matter, and alleviates compaction. Also helps increase the soil's microbial activity. Not recommended for livestock grazing.	Applying 25-50 lb/ac of N at planting to increase total biomass production. Plant into a clean, weed-free seedbed.	Mid/Late summer or planting during late spring and using as a full-season cover.	3/4" 	Drill: 25 lb/ac Broadcast: 30 lb/ac	Cover Crop Radish 30%, Common Vetch 20%, Flax 15%, Crimson Clover 15%, Oats 10%, Sunn Hemp 5%, Peas 5%
HB TOP GRAZIER Blend of cool-season grasses and brassicas for a season-long grazing cover crop. If planted in the spring, will provide grazing throughout the summer and well into the fall season. The forage oats in the mix provide the first initial flush of growth for the first grazing pass of the season. The other species in the blend will begin to take over once the oats have been grazed off. Brassicas will remain vegetative throughout the growing season and their leaves will continue to regrow the following grazing as long as conditions allow. The Italian ryegrass in the mix will remain vegetative and provide persistent regrowth under grazing conditions. After the oats have been grazed off and growth of the brassicas slows, the Italian ryegrass will keep producing until temperatures get too cold for further regrowth. Overall forage quality is very high in terms of both crude protein and digestibility. Animal performance and average daily gains reflect this rich grazing diet.	Fertile soil with adequate moisture - less productive in dry conditions. Approximately 30 lbs of N, 11 lbs of P, and 35 lbs of K per ton of forage produced. Apply 1/4-1/2 rate of N at planting and the remaining rate when the crop reaches 6"-12" in height. Do not exceed a total of 25 lb/ac of N+K if fertilizer is placed in-furrow.	Early spring. Can tolerate any light frost.	1/4"  1/2" 	Drill: 25 lb/ac Broadcast: 30 lb/ac	Italian Ryegrass 30%, Forage Oats 25%, Winfred Brassica 20%, Hunter Brassica 15%, Buster Radish 10%

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HB LATE GRAZIER Blend of warm season grasses and forage brassicas for a summer annual grazing system. It is also commonly used as a cover crop following early harvest of a small grain or spring forage. Can be planted early in the summer and used as a rotational grazing system, or planted later in the summer and used for stockpiled fall and winter grazing.	Approximately 20 lbs of N, 5 lbs of P, and 20 lbs of K per ton of forage produced. Make fertilizer applications based on expected yield and soil fertility levels. Apply a ½ rate of N before or immediately after planting, and the other ½ rate 30 days after emergence. Do not exceed a total of 10 lb/ac of N+K if fertilizer is placed in-furrow at planting.	Late spring – mid-summer		Drill: 15 lb/ac Broadcast with Rolling: 15 lb/ac	Millet 25%, Turnip 25%, Sorghum Sudan 20%, Brassica 20%, Radish 10%
HB GRAZIER PLUS Predominantly a warm season mix that is very well suited for grazing. This mix will perform well as a multipurpose blend in the tough conditions of western environments. It can be grazed as soon as there is adequate growth to support livestock, although it is best to wait until the sorghum sudangrass is at least 18"–20" tall. Regrowth potential on the blend is very good, so multiple grazing passes is an option under good growing conditions. Avoid grazing for 5-7 days following a killing frost. The entire mix is then safe to graze for the remainder of the fall and winter.	If grazing is intended and soil fertility levels are low, consider applying 25-50 lb/ac of N at planting to increase total biomass production. Plant into a clean, weed-free seedbed.	Late spring – mid-summer		Drill: 20 lb/ac Broadcast: 25 lb/ac	Sorghum Sudangrass 20%, Peredovik Sunflowers 15%, Common Vetch 5%, German Millet 10%, Rapeseed 10%, Turnips 10%, Oats 15%, Crimson Clover 5%, Flax 5%, Winfred Brassica 5%
HB STOCK BALANCER Designed for broadcasting or drilling applications. Created for the cattleman in mind to graze longer in the fall after corn harvest. This mix is to be interseeded into your wide row corn fields between V3-V8 of your corn growth. This diverse cocktail of brassica legumes and cool season grasses will balance your livestock gut out on stalks.	Plant into a clean, weed-free seedbed.	Early – mid-summer		Drill: 20 lb/ac Broadcast: 25 lb/ac	Annual Ryegrass 25%, Rapeseed 15%, Purple Top Turnip 12.5%, Brassica 10%, Crimson Clover 10%, Radish 10%, Oats 12.5%, Buckwheat 5%
BOUNTY BLEND PEAS/BARLEY 6040 60/40 Barley/Pea blend commonly used as a spring forage option for hay and livestock growers. Produces high tonnage and is high in digestibility and crude protein while not sacrificing yield.	Avoid wet ground. Prefers cool weather.	March - April, August - September		Drill: 100 lb/ac	
BOUNTY BLEND PEAS/OATS 6040 60/40 Pea/Oat blend commonly used as a spring forage option for all classes of livestock producers looking to increase tonnage and quality in their annual hay or haylage crops. Forage peas are very high in digestibility and crude protein and do not sacrifice yield. The oats in the blend ensure good dry matter yield and provides structure for the peas to grow upwards.	Requires approximately 20 lbs of N, 20 lbs of P, and 45 lbs of K per ton of forage produced. If soil fertility levels are low, consider applying 25 lb/ac of N between planting and mid- to late-tillering of the oats. Do not exceed a total of 25 lb/ac of N+K if fertilizer is placed in-furrow.	Early spring Can tolerate any light frost that may occur after planting.		Drill: 100 lb/ac Broadcast: N/A	
BOUNTY BLEND PEA/TRITICALE 6040 60/40 Pea/Triticale blend is an alternative spring forage option to the other commonly used mixtures of forage peas and small grains such as oats or barley. Spring triticale has advantages in yield while maintaining excellent forage quality. Forage peas are very high in crude protein and digestibility and have good yield when blended with a grain crop such as triticale that can provide structure for them to grow upward. Pea/Triticale blends will be a later maturing spring forage option with excellent yield potential as a hay or haylage crop.	Requires approximately 20 lbs of N, 20 lbs of P, and 45 lbs of K per ton of forage produced. If soil fertility levels are low, consider applying 25 lb/ac of N between planting and mid- to late-tillering of the triticale. Do not exceed a total of 25 lb/ac of N+K if fertilizer is placed in-furrow.	Early spring Can tolerate any light frost that may occur after planting.		Drill: 100 lb/ac Broadcast: N/A Mix: N/A	





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BUCKWHEAT Quick-growing, broadleaf summer annual. Ready to incorporate in 35 to 45 days. Potential for multiple plantings per year. Capable of being harvested for grain in 70 to 90 days. Very competitive with tough weeds like giant ragweed and Canada thistle. Residue breaks down rapidly. Mellows soil and breaks up surface compaction. Easily terminated, at first sign of flowering, to avoid volunteer buckwheat. Reproduces annually by seeding.	Thrives on nutrient deficient soils. Excellent scavenger of P and other nutrients. Sensitive to frost, drought, excessive heat, and any carryover herbicides.	June-July		Drill: 50-100 lb/ac Broadcast: Not recommended Mix: 15-25 lb/ac
BUSTER RADISH Vigorous taproot accumulates leachable nutrients, protects soil, improves infiltration, and mitigates compaction. Plants break down completely by spring; no need for fall or spring tillage. Will likely winterkill in Upper Midwest. Reproduces annually by seeding.	Adapted to most soil types.	August-September		Drill: 6-8 lb/ac Broadcast: 8-9 lb/ac Mix: 2-3 lb/ac
CAMELINA - WINTER Fall-seeded winter annual brassica excellent for cover cropping. Winter hardiness similar to winter rye. Only brassica that consistently overwinters. Can be grown as winter annual oilseed for double cropping. Harvested late June. Excellent following soybeans before corn.	Excellent nutrient scavenger. Competitive with weeds early in the season.	September-October		Drill: 3-5 lb/ac Broadcast: 5-6 lb/ac Mix: 1-2 lb/ac
CHICORY FORAGE Not a grass, but a perennial. Broadleaf that produces leafy growth, has a deep taproot, and is very persistent. Provides both spring and summer forage. High in nutrition and mineral content (if properly managed). Loses palatability when allowed to head out. Excellent companion for grass pastures.	Well adapted from heavier-to-lighter soils. Is drought tolerant.	March-May		Drill: 4-6 lb/ac Broadcast: 5-8 lb/ac Mix: 2-3 lb/ac
COLLARDS FORAGE One of the most winter-hardy brassicas available. Provides excellent early summer through winter grazing. Collards have superior forage quality, palatability, reduce soil erosion, and compaction. Excellent at scavenging excess nutrients remaining from the previous crop.	Thrives under a wide range of conditions. Is drought tolerant.	March-Early October		Drill: 5-8 lb/ac Broadcast: 8-12 lb/ac Mix: 1-3 lb/ac
COWPEAS - IRON CLAY Highly productive warm-season, annual legume that works well in pastures, hay, and silage. Rapid germination and growth quickly shade the ground, which provides weed control. Deep taproot (can reach 8 feet) prevents soil erosion and reduces compaction. Cowpeas are also a great protein source and addition to any warm season mix.	Prefers hot, wet conditions and is drought tolerant (better than soybeans). Fixes up to 150 lb/ac of N. Ready to plowdown 60-90 days after planting. Recommend inoculating.	June-August Planting at soil temp > 65°.		Drill: 50-75 lb/ac Broadcast: Not recommended Mix: 25-35 lb/ac
FABA BEANS Tall, bushy annual legume that can produce 3.5-6 tons/ac DM as a cover crop. Large taproot breaks up compaction. Good forage for hay or silage.	Adaptable to most soil types but thrives under cool, wet conditions. Somewhat frost tolerant but is not heat and drought tolerant. Fixes up to 140 lb/ac of N.	Early spring or August-October		Drill: 10-70 lb/ac Broadcast: 80-95 lb/ac Mix: Variable
FLAX Cool season annual broadleaf. 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.	Adaptable to most soil types.	Early spring-August		Drill: 30-50 lb/ac Broadcast: 55-60 lb/ac Mix: Variable
KALE Economical, cold-tolerant choice for grazing. Highly palatable and can be grazed late into fall. Looks similar to turnip and radish early in establishment.	Prefers well-drained soils rich in organic matter. Is frost tolerant.	March-May July-September		Drill: 3-4 lb/ac Broadcast: 4-5 lb/ac Mix: 1-2 lb/ac
LENTILS Short-stature, cool season legume very well suited for cover cropping. Smaller seed size makes it ideal for aerial application into standing crops. Winterkills in the Upper Midwest but can be spring planted.	Drought- and frost-tolerant; suited for all soil types. Fixes a good amount of N.	March-May July-September		Drill: 40-50 lb/ac Broadcast: Not recommended Mix: Variable

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MUNG BEANS Warm season legume planted later in the season (after small grain harvest). A shorter season and more determinate cousin to cowpeas with smaller seed size. Equally drought- and heat-tolerant. Great when growing season is limited. Mostly upright and slightly spreading, this low water use plant is a good addition to grazing mixes with crude protein ranging from 16-22%.	Adaptable to most soil types. Is drought tolerant.	Summer	 	Drill: 20-25 lb/ac Broadcast: 30-40 lb/ac Mix: Variable
MUSTARD - YELLOW Economical choice for cover cropping. Good fit if frostseeded before soybeans or flown in fall. Very fast growing. Does not thrive in mixtures. Control plant at first flower to avoid seed set, which may lead to unwanted volunteers.	Thrives in cooler conditions and is easy to establish when sufficient moisture is available. Mustard needs sufficient N and S for optimum growth with the ideal ratio being 6:1.	February-April August-September		Drill: 15-20 lb/ac Broadcast: 20-25 lb/ac Mix: 3-5 lb/ac
MUSTARD - BROWN Brown mustard will be utilized in a very similar manor as yellow mustard. Produces more overall biomass with two weeks longer to reach maturity. The glucosinolates are more beneficial for suppressing soil-borne pathogens/nematodes. Producing a thick tap root that penetrates 1-3 ft into the soil profile, with a thick fibrous root system similar to cereal crops at the surface, which eco-tills the soil with living roots.		March-May August-September	 	Drill: 5-8 lb/ac Broadcast: 10-15 lb/ac Mix: Variable
OKRA Warm season broadleaf vegetable that has a deep taproot, which reduces compaction. This fast growing plant provides a large canopy, long-lasting residue, and winter snow catch. Livestock will graze okra, as the pods are high in vitamin A, C, and K.	Performs best in well-drained fertile soils with full sun. Avoid wet, poorly drained soils. Handles acidic and alkaline soils.			Drill: 15 lb/ac Broadcast: Not recommended Mix: Variable
RAPESEED Versatile cool season (winter or spring) annual brassica that can be utilized in a wide array of mixtures. It can provide a great emergency forage source in just 8-10 weeks, which can be grazed multiple times. Use in spring mixtures where a brassica is desired because it will be the slowest species in the brassica family to flower and produce seed. This will allow your mixture to grow longer before termination is required.	Adaptable to most soil types. Performs best when sufficient N and S are present; preferable ratio is 7:1.	August-Early October	 	Drill: 4-8 lb/ac Broadcast: 8-12 lb/ac Mix: Variable
SAINFOIN SAINFOIN - ORGANIC Non-bloating legume that performs well in a rangeland mix or as stand-alone replacement for alfalfa. Deep-rooting system breaks up soil compaction and increases water infiltration.	Performs best on well-drained or sandy soils; will not perform well on wet soils (prone to root/crown rot). Is highly drought tolerant.	April-May August-September	 	Drill: 30-34 lb/ac Broadcast: 40-45 lb/ac Mix: Variable
SUNFLOWER Fast growing summer annual broadleaf best used for weed suppression. Extensive root system breaks up compaction. Attractive flowers for pollinators. Very tall providing a large amount of biomass back into the soil to increase soil organic matter.	Performs best on well-drained or sandy soils; will not perform well on wet soils (prone to root/crown rot).	April-August	 	Drill: 10-15 lb/ac Broadcast: Not recommended Mix: 1-2 lb/ac
SUNN HEMP Tall-growing, warm-season annual legume that is quick growing with tremendous biomass and N-fixing capacity. Has the potential to put on over 5,000 lbs of biomass in 60 days. Terminate crop at first flower to avoid fibrous stalks.	Thrives on poor soils. Plant when soil temperatures are > 65°F. Does not perform well in low pH soils. Is very heat- and drought-tolerant. Recommend inoculating.	June-August	 	Drill: 12-20 lb/ac Broadcast: Not recommended Mix: 4-8 lb/ac
TURNIP - PURPLE TOP Hardy, large-rooted brassica that produces abundant high quality forage below and above ground. Can yield up to 4 to 6 tons of DM/acre. High energy feed with 85% total digestible nutrients and 10% protein. Roots grow about half above ground. Best used for grazing or as a cover crop. Has been pastured successfully with up to a foot of snow. Ready to graze in 60-90 days.	Prefers fertile, moderately deep, slightly acidic loam soil. Does not do well in clay, wet, or poorly drained soils. For good root growth turnips need a loose, well aerated soil. Add 50-100 lbs N and medium rates of K and P.	March-May July-September	 	Drill: 3-5 lb/ac Broadcast: 5-6 lb/ac Mix: 1-2 lb/ac
VETCH - HAIRY VETCH - HAIRY - ORGANIC Winter-hardy legume with a great rooting system (tap root will extend 1-3 feet) that works well as a cover crop or erosion control. Its rapid growth makes it an excellent weed suppressant. Can be used to produce a high protein content forage or N source for grain crops.	Adapted to most soil types, but prefers well-drained soils. Is drought tolerant and has the potential to withstand freezing temperatures.	Early spring August-October	 	Drill: 40-55 lb/ac Broadcast: 60-75 lb/ac Mix: 15-30 lb/ac
VETCH - VNS Viney legume with compound leaves. Good growth for cover cropping if seeded early in the fall. Excellent candidate for aerial application. Due to VNS it has the potential to winterkill.		August-September		