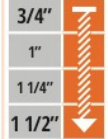
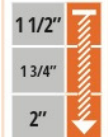

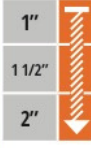



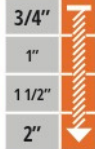

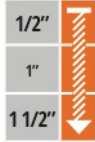







SMALL GRAINS

Item Name Description	Soil Accommodations	Planting Range	Drilling Depth	Seeding Rate
BARLEY				
<p>VNS A cool-season annual grass that produces grain for human and animal consumption. Because there are both summer and winter varieties, it can be grown at a wide variety of locations. Can be grazed by livestock before seedheads are produced. There are two different groups of barley, the six-rowed and two-rowed types. These groups refer to the differences in the arrangement of the seedheads in the spike. When viewing a head of six-rowed barley from above, there are six rows of kernels, three on each side of the rachis (seedhead stem). In two-rowed barley, only the middle spikelet develops a kernel, and the other two spikelets are sterile. When viewed from above, the two-rowed type appears to have only two kernels.</p>	<p>Deep, fibrous roots will absorb residual nutrients from the soil, so fertilization is not typically needed when planted as a cover crop. However, if soil tests indicate nitrogen is needed, apply recommended amounts at time of planting. Barley cannot tolerate poorly drained soil, grows well when pH values are between 6.0–8.5</p>	<p>March - May</p>		<p>Drill: 75-100 lb/ac</p>
<p>HAYS HAYS - ORGANIC High yielding forage barley, up to 3.2 tons/acre. Very tall, great for baling and silage; not suitable for underseeding. Harvest at medium dough stage.</p>				
<p>ND GENESIS ND GENESIS - ORGANIC Highest yielding barley for malting and feed. Excellent malt quality, large kernel size, low protein. Good fit for hotter climates. Tall with good standability and leaf disease resistance.</p>				
<p>ROBUST ROBUST - ORGANIC Farm-proven for grain or chopping. Taller plant type and medium maturity.</p>				
<p>BARLEY - FORAGE A beardless spring barley developed as a forage. Cool-season annual small grain commonly planted as hay or a silage crop. Taller and leafier than other barley varieties, quick maturing, and will be ready to cut earlier than other small grain forages planted at the same time. Works excellent in double cropping scenarios. Produces fine-stemmed hay that will cure easily and be highly palatable to all classes of livestock.</p>				
OATS				
<p>GOLIATH Late-maturing, 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.</p>	<p>Can be grown on a wide range of soils and can tolerate a wider pH range than wheat or barley.</p>	<p>March - April, August - September</p>		<p>Drill: 2.5-3 bu/ac (80-100 lbs)</p>
<p>HAYDEN HAYDEN - ORGANIC Great all-around oat – top yielding, high test weight, good standability. Often meets milling requirements. Strong western movement. Direct replacement for Shelby 427. Avg yield/BU 130.</p>				
<p>JERRY JERRY - ORGANIC Taller, medium-late oat for forage and/or cover cropping. Very versatile as a cover or nurse crop for alfalfa and peas. No longer protected by PVP.</p>				
<p>SADDLE Consistent, strong yield potential; good long-term testing results. Early-maturing oats with excellent standability. Average crown rust resistance. Avg yield/BU 126.4.</p>				
<p>WARRIOR A white-hulled, spring oat with medium maturing line. Heads out about 1 day later and is 2" taller than Horsepower. High yield potential and average test weight. Moderately resistant to smut and moderately susceptible to BYDV. The variety is resistant to crown rust. Lodging resistance is excellent. Is a great nurse crop for alfalfa and peas.</p>				

Item Name Description	Soil Accommodations	Planting Range	Drilling Depth	Seeding Rate
PEAS				
4010 4010 - ORGANIC Offers excellent forage quality for grazing or hay and is a good option for early spring and fall cover cropping. Produces significantly more biomass than yellow grain type peas. Good companion to small grains.	Avoid wet ground. Prefers cool weather. Inoculate before planting.	March - April, August - September		Drill: 120-180 lb/ac Broadcast: N/A Mix: 40-80 lb/ac
ICICLE WINTER Strong winter hardiness potential. Excellent root system and high biomass production in the spring. White flower; more digestible and sweeter tasting to livestock compared to purple types.	Prefers cool weather and well-drained soils. Does not tolerate acidic soils. Inoculate before planting. Can withstand colder autumn temperatures than field peas.	March - April, August - September		Drill: 50-100 lb/ac Broadcast: N/A Mix: 10-30 lb/ac
AUSTRIAN WINTER AUSTRIAN WINTER - ORGANIC Use as spring forage pea in cover crop mixes or forage blends. Can provide from 90 to 150 lbs nitrogen/acre at full flowering. Withstands temperatures as low as 10°F with minor injury. Does not overwinter in areas colder than Hardiness Zone 6. Sensitive to heat and humidity.				
WHEAT				
REDFIELD - CERTIFIED Hard Red Winter Wheat - High-yielding alternative to Wesley with improved test weight and more lodging resistant. Mid-maturity type with average-to-good milling quality and good baking quality. Named for its red chaff color. Well adapted to the northern part of the winter wheat region. Shorter than Overland, but approximately 1 inch taller than Wesley. Good resistance to FHB. Moderately susceptible to leaf rust, stem rust, and stripe rust. Susceptible to wheat streak mosaic virus.	Adaptable to most soils types, prefers loams. Works well within a row crop rotation. Apply 2.4 lbs N per lb of expected grain harvested.	North-Central Nebraska: September 15 - October		Drill: 90-120 lb/ac
THOMPSON - CERTIFIED Hard Red Winter - A medium-later maturing wheat noted for its high yields and protein. Good disease package with good head scab tolerance and excellent straw strength.				
WESLEY - UNCERTIFIED Hard Red Winter - A moderately early-maturing, moderately short height variety with excellent straw strength and winter hardiness. Resistant to stem rust, and moderately resistant to stripe rust and leaf rust.				
WILLOW CREEK A winter annual grain commonly planted for forage production. It is an awnless variety of winter wheat bred for superior forage quality and yield in comparison to other winter annual small grains. Late-maturing variety, which results in an extended period of vegetative growth in the spring that is correlated with higher forage quality. Good winter hardiness and can be used in northern climates that experience harsh winter temperatures. Relatively drought tolerant and can be used in dryland applications or on lighter soils.	Performs best in well-drained to moderately drained soils. Requires approximately 9 lbs of N, 11 lbs of P, 45 lbs of K and 4.5 lbs of S per ton of forage produced. Apply ¼-½ rate of nitrogen at planting, and the remaining rate during green-up in the spring. Do not exceed a total of 20 lb/ac of N+K if fertilizer is placed in-furrow.	Mid - Late fall		Drill: 80-100 lb/ac
BOLLES BOLLES - ORGANIC Hard Red Spring - Produces grain with high protein content and milling qualities. Direct replacement for Glenn. Excellent leaf rust resistance and above-average standability.	Good seed-soil contact and adequate moisture is essential when the grain is seeded. Prepare a firm seedbed for good germination and seedling development. Dry, loose soil makes for an unsatisfactory seedbed. Make sure there is 75 pounds of available nitrogen as well as good levels of phosphorus and potassium. Both liquid and granular fertilizers work well.	February - April (plant as soon as field conditions allow)		Drill: 120-140 lb/ac
SHELLY - ORGANIC Hard Red Spring - Produces grain with average protein content. Shorter in height, good standability, and widely adaptable. Good disease resistance.				

Item Name Description	Soil Accommodations	Planting Range	Drilling Depth	Seeding Rate
OTHER SMALL GRAINS				
<p>RYE - VNS One of the most versatile and commonly used components in cover crop mixes or in a row crop rotation. Cereal rye is winter-hardy and grows well in various conditions. Remarkable spring growth, has the potential to produce a lot of residue or forage.</p>	Performs well in a variety of soil types and is an excellent nutrient scavenger.	August - October		Drill: 60-120 lb/ac Broadcast: 80-140 lb/ac Mix: 35-55 lb/ac
<p>TRITICALE A hybrid cereal grain designed to combine the favorable traits of rye and wheat: rye's growth, vigor, and cold tolerance, and wheat's feed quality and palatability. Shows some drought tolerance and is less prone to lodging than winter rye.</p>	Performs well in a variety of soil types. Responds well to strong fertility plans.	August - September		Drill: 80-100 lb/ac Broadcast: 100-120 lb/ac Mix: 40-60 lb/ac
<p>LENTILS - VNS Short-stature, cool season legume very well suited for cover cropping. Excellent crop choice to break up cereal crop rotations. Lentil straw is much higher in CP, digestibility, and palatability. Smaller seed size is ideal for aerial application into standing crops.</p>	Suited for all soil types including dry soil. Fixes a good amount of N.	March - May, July - September		Drill: 40-50 lb/ac Broadcast: 60-75 lb/ac Mix: 20-30 lb/ac
<p>MILLET - GERMAN Fast-growing, annual grass that can reach 3-5' tall and be ready to cut in 50 days. Has a very fine stem that is easy to hay. Highly palatable.</p>	Likes good ground but tolerates tough, unfavorable conditions because of drought tolerance and early maturity.	Early June - mid-July (soil 62°F+)		Drill: 20-25 lb/ac
<p>MILLET - PEARL Annual bunchgrass that can reach 4-5' tall. Multi-cut, warm-season grass with coarse stems that produces high tonnage. Does not produce prussic acid. If used for livestock grazing and/or hay production, manage nitrate levels.</p>	Likes good ground but can produce under low rainfall and low soil fertility.			Drill: 25-30 lb/ac
<p>HYBRID PIPER SUDANGRASS Annual grass with finer stems, prolific tillering, and palatability make this product ideal for hay production, grazing, green chop, silage, or baleage. Use multi-cut system or managed grazing for optimal production. Manage for the potential of prussic acid and nitrates.</p>	Adaptable to most soil types and likes hot weather.	Early June - mid-July (soil 62°F+)		Drill: 20-30 lb/ac Broadcast: 25-35 lb/ac (Use high end of the rate for hay production.)



