



EARTH CARPET®

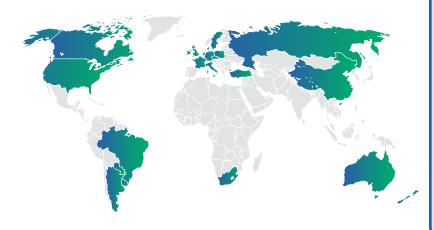
BY DLF SEED GUIDE I EDITION 14



TO SEED A GREEN FUTURE

THE WORLD OF DLF

Our customers demand a lot from their seed: yield, quality, winter hardiness and disease resistance. That is why we invest heavily in global R&D and our research plots. The presence of breeding and



testing facilities in the largest production and utilization areas ensures that our products are well adjusted, tried and tested in local climatic conditions.



through this effort

OUR CUSTOMERS CAN

At DLF we research, develop and produce products to specifically meet the needs of the your market and conditions.

DLF is the global leader in research, development, production and



World market leader **within temperate forage and turf seeds.** Supplying to more than 100 countries.



Leading research and development program in sustainable and green crops of the future

distribution of turf, forage and other seed. This makes us part of a worldwide organization with a passion for innovation and a commitment to helping us deliver the best turf products.



7th largest seed company in the world



For more than 25 years, **Leah Brilman, Ph.D**, has worked for Seed Research[™] and DLF. She currently serves as Director of Research and Technical Services. Brilman's research interests include turfgrass breeding and genetics as well as the utilization of new cultivars and management changes. Her excellence in the turfgrass industry has been well documented through the many awards she has received, including a National Science Foundation Graduate Fellowship, the Association of Commercial Plant Breeders Award for Industry Breeder, and being named a fellow in the Crop Science Society of America (CSSA). She has received the Fred V. Grau Turfgrass Science Award from the Turfgrass Science Division of CSSA.

TABLE OF CONTENTS

La Crosse Seed Products & Custom Mixing	3
Natives Grasses & Wildflowers	4
A-List® Varieties	5
The Hidden Costs of Old, Common Seed	6
Professional Landscape Mixes	7
General Landscape Mixes	8
Kentucky Bluegrass & Perennial Ryegrass Mixes	9
Slope & Shade Mixes	10
Tall Fescue Mixes	11
Bentgrass	12

Fine Fescue 13 Tall Fescue 14 Earth Carpet® Product Chart 15 17 Kentucky Bluegrass Perennial Ryegrass 18 **Erosion Control** 19 21 Food Plot Seed Up, Down All Around: Fertilizer 101 25 26 Reference Information

ABOUT EARTH CARPET®

THE SCIENCE IS IN THE SEED

Growing lush, green turf with the "wrong" seed is like growing an apple tree from pumpkin seed - no amount of effort will give you the desired result. At Earth Carpet® we've taken a revolutionary approach and spent years cultivating the right seeds for the right conditions.

SEED FOR ANY NEED

Whatever your project, conditions or budget, Earth Carpet[®] has you covered. Our versatile portfolio offers a variety of proven products, from economy to elite options, to fit each unique goal.

STAND OUT. IN A GOOD WAY.

As a turf leader for many years, we know how to transform a lawn. Our quality mixes are known to produce beautiful lawns that you'll take pride in and create curb appeal that adds value.

SWEAT LESS. SPEND LESS.

Our seed not only delivers consistent results, but also saves money and time. Quality seed means less cost and labor on water, fertilizer, pest control and excessive mowing. Higher quality turf with less work. Guaranteed.





S preading **T** echnology - Many perennial ryegrass products in our portfolio benefit from spreading technology, featuring early development of aggressively spreading stolons both above and below ground. These spreading traits boast improved wear tolerance and recovery plus excellent density and persistence.



E X treme R hizome E xpression - Many products in our portfolio benefit from "XRE Spreading Tall Fescue" varieties, which feature early expression of strong, aggressively spreading rhizomes. These products exhibit increased wear tolerance and persistence under high-use pressure.



XRE+ Look for the "**XRE**+" icon throughout this book for products with tall fescue varieties featuring even earlier, more aggressive and rapid tillering traits and rhizome expression. These products exhibit superior density, excellent wear tolerance and rapid recovery.



LA CROSSE SEED PROVIDES A FULL RANGE OF PRODUCTS TO MEET YOUR NEEDS:

FORAGE FIRST® BY DLF FORAGES	 Forage grasses Forage legumes Forage mixes Seed inoculants Conservation seed/mixes Small cereals Custom forage mixes 	SUMMER SELECT	 Sorghum x Sudan Sudangrass Forage Sorghum Millets Teffgrass
SOIL FIRST® BY DLF COVER CROPS	 Cover crop seed Cover crop mixes Custom cover crop mixes Seed inoculants 	DEER CREEK® SEED BY DLF WILDLIFE	 Food plot seed Food plot mixes Custom wildlife mixes
NATIVES & WILDFLOWERS	 Native grasses Conservation seed mixes Wildflowers/forbs Custom conservation seed fixes (NRCS, CRP, Pollinator) 	SMALL GRAINS	Spring cerealsWinter cerealsPea mixes

CUSTOM SEED MIXING

La Crosse Seed offers custom mixing capabilities to meet any need. **Contact us at info@laxseed.com or visit our website to learn more.**

SEED OPTIONS

La Crosse Seed offers a vast portfolio of seed designed for many conservation applications. A partial list available through La Crosse Seed includes seed for:

- · Conservation cover including CRP and pollinator habitat seeds
- Contour buffer strips
- Filter strips
- Field borders
- Forage and biomass plantings
- Grassed waterways
- Stream bank protection



CONSIDERATIONS WHEN CREATING CUSTOM SEED MIXES:

- Think about seed sizes will the different size and shape of certain seeds prohibit specific application methods?
 - » Aerial: too large of seed might struggle to get adequate seed-to-soil contact
 - » **Drilling or Ground Seeding:** seed size usually affects seeding depth. Different seeding depths become a real challenge with numerous species all in the same bag.
- · Different cover crops often perform best when planted at different times
- Not all crops are beneficial to the next crop in the rotation
- · Select species carefully, making sure all species are adapted to the field's soil, drainage and crop rotation

NATIVE GRASSES & WILDFLOWERS

La Crosse Seed conservation seed, including native grass and wildflower mixes, pair clean, quality native seed with sound agronomics and management support to ensure the right product and right approach for your conservation or CRP planting. Our conservation seed portfolio includes annual and perennial wildflower pollinator mixes, native grasses, forbs and custom CRP mixes.

A PARTIAL LIST OF NATIVE SEED OPTIONS AVAILABLE THROUGH LA CROSSE SEED INCLUDES:

GRASSES

- Big Bluestem
- Blue Grama
- Buffalograss
- Canada Wildrye
- Eastern Gamagrass
- Green Needlegrass
- Indiangrass
- Intermediate
 Wheatgrass
- Junegrass
- Little Bluestem

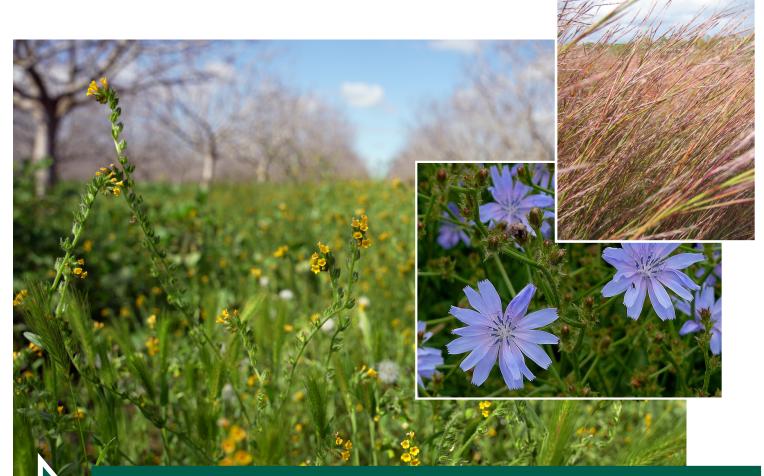
- Prairie Cordgrass
- Pubescent Wheatgrass
- Sand Lovegrass
- Sand Dropseed
- Sideoats Grama
- Slender Wheatgrass
- Switchgrass
- Tall Wheatgrass
- Western Wheatgrass

FORBS

- Black-Eyed Susan
- Ox-Eye Sunflower
- Maximilan Sunflower
- Partridge Pea
- Purple Coneflower
- Showy Tick Trefoil
- Wild Bergamot
- Yellow Coneflower

MIXES

- Midwest Wildflower Mix
- Color Iowa Wild Mix
- Knee-High Wildflower Mix
- North American Shade Wildflower Mix
- Native Wildflower Mix for Pollinators
- All Perennial Wildflower Mix
- Upland Native Mix
- Lowland Native Mix (Tall)
- EcoGrass Short Mix



CUSTOM CRP MIXING

La Crosse Seed offers custom mixing capabilities to meet any need. Contact us at info@laxseed.com or visit our website to learn more.

A-LIST VARIETIES

For decades turfgrass breeders have toiled to create varieties that out perform their predecessors. Turf managers also struggle to balance required management practices with environmental dictates.

Varieties have unique traits, much like a fingerprint, that allow them to be compared and evaluated on a standard basis. The ALLIANCE FOR LOW INPUT SUSTAINABLE TURF® (A-LIST®) seeks to influence turfgrass breeding by creating trial guidelines and evaluation protocols to identify the best performing turfgrass varieties that also have reduced input demands.

PURPOSE

A-LIST is an independent, non-profit, industry initiative, fostering development of sustainable turfgrass varieties and related products that perform their function with less maintenance inputs, thus benefiting the environment. A-LIST will establish and monitor a voluntary evaluation program including metrics like water conservation, reduced fertility, traffic, heat, and drought stress tolerances, all with no fungicide or insecticide applications. Products that meet the acceptance criteria can utilize the A-LIST Approved symbol in their marketing.

FOUNDING MEMBERS

Our founding members believe that responsible stewardship of the earth's natural resources is shifting emphasis toward more efficient plant sustainability. Turfgrasses enjoy several inherent psychological and environmental benefits. Their sustainability under reduced growing inputs will further enhance their value and contribution.

This suggests a research protocol that is more holistic in nature, addressing all factors contributing to a plant's health, rather than a narrow focus on a selected trait.



The Alliance for Low Input Sustainable Turf is a non-profit university and industry cooperative that serves to test, identify and promote varieties to consumers that maintain acceptable turf quality while requiring reduced water, chemical and fertility inputs.



VARIFTY



TOLERANCE







Look for the A-List[®] symbol throughout this guide for products that meet the A-List standard.



THE HIDDEN COSTS OF OLD, COMMON SEED

If you take a long, hard look at some of our competitors, you'll notice they're still peddling the same seed mixes they've been selling for 50 years:

- Common Kentucky bluegrass, perennial ryegrass, fine fescue & tall fescue
- Old seed varieties that were once popular but are now considered the same as commons, including 98/85 Kentucky bluegrass, Linn perennial ryegrass & Kentucky 31 tall fescue

Sadly, year after year, the customers who buy these seeds are confronted with the same old headaches:

- No disease resistance red thread, dollar spot, rust, necrotic ring spot, brown patch & others are par for the course
- No insect resistance sod webworm, cutworms, billbugs & chinch bugs rear their ugly heads
- No drought or heat stress tolerance
- No wear & tear tolerance impractical for athletic events or backyard games

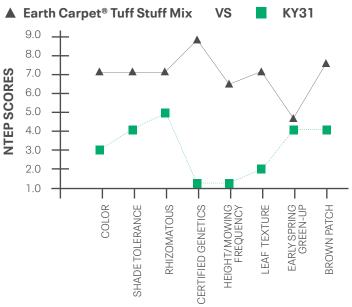
If all you're looking at is price per bag, common grass seed looks like a bargain compared to Earth Carpet[®]. However, common seed requires more labor and management:

- More fertilizerMore water
- More fungicide
 More herbicide
- More insecticide
- More nerbicide
 More reseeding

Your customers deserve better!

Some of our competitors' lawn seed mixes haven't changed in 50 years. Genetically speaking, some seed varieties are still trapped in the 1950's.

SEED MIX COMPARISON





EARTH CARPET® VERSUS COMMON SEED COST COMPARISON FOR ONE COMPLETE SEASON (SEEDING YEAR)

(Costs are based on a 10,000 sq. ft. lawn using approximate seed pricing for a typical season. Pricing is subject to seasonal industry developments.)

REAL COST OF COMMON SEED	TOTAL
Initial Seeding (70 lbs @ \$2.80/lb)	\$196.00
Starter Fertilizer Application (40 lbs @ \$.37/lb)	\$14.80
Second Fertilizer Application (40 lbs @ \$.37/lb) Third Fertilizer Application (40 lbs @ \$.37/lb)	\$14.80 \$14.80
Insecticide	\$14.80
Fungicide Weed & Feed Application in the Fall (or Herbicide)	\$57.60 \$25.38
Reseeding (35 lbs @ \$2.80/lb)	\$25.30
Fertilizer for Reseeding (35 lbs @ \$.37/lb)	\$98.00
SEASON TOTAL	\$489.77

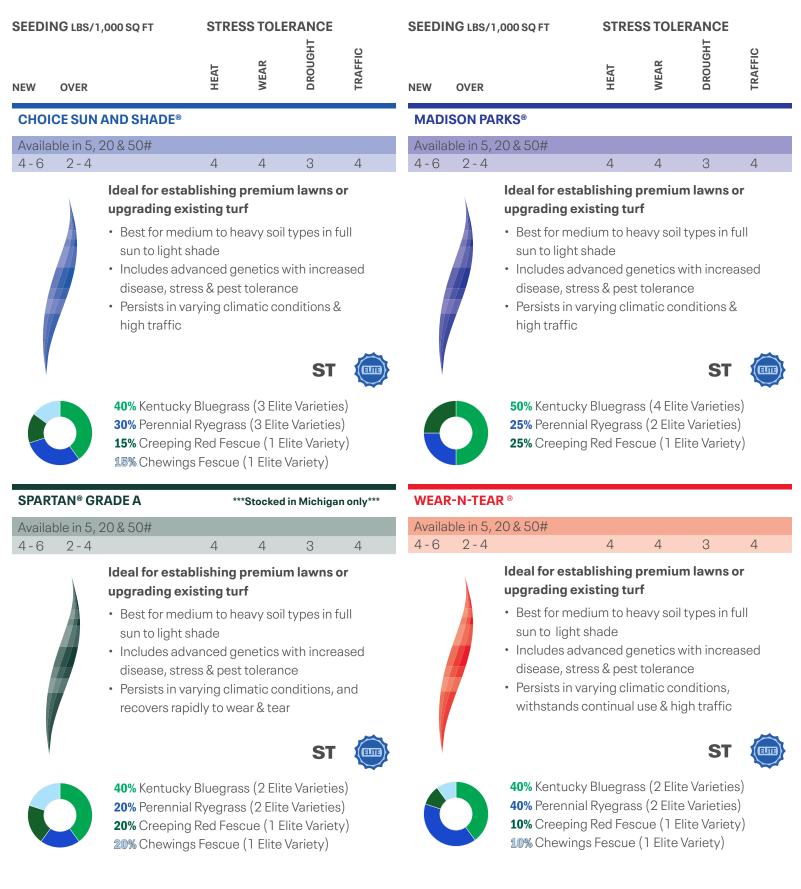
EARTH CARPET® SEED	TOTAL
Initial Seeding (70 lbs @ \$3.50/lb)	\$245.00
Starter Fertilizer Application (40 lbs @ \$.37/lb)	\$14.80
Second Fertilizer Application (40 lbs @ \$.37/lb)	\$14.80
Weed & Feed Application in the Fall (or Herbicide)	\$25.38
SEASON TOTAL	\$299.98

*This chart is an estimation. It is subject to change as pricing changes.

A BAG OF COMMON SEED MAY BE CHEAPER, BUT IT'S NO BARGAIN. WHEN CUSTOMERS SWITCH TO EARTH CARPET®, TWO THINGS HAPPEN: TURF QUALITY GOES UP - COSTS AND LABOR GO DOWN.

PROFESSIONAL LANDSCAPE MIXES

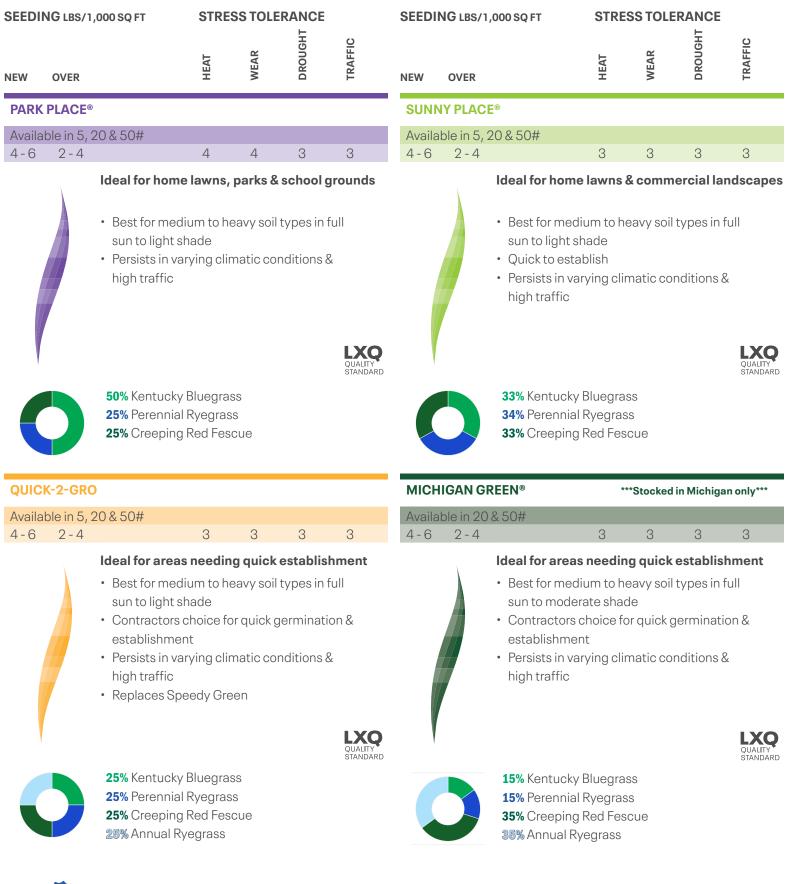
Earth Carpet[®] professional mixes are optimal performers under many conditions. These premium mixes feature elite turf varieties to ensure your lawn or professional landscape project stands out for the right reasons.



Elite Varieties - Many of our mixes feature elite turf varieties. An "elite" variety is an improved variety holding the most distinguished characteristics of that species. For optimal performance, look for mixes containing elite varieties in our Earth Carpet[®] seed guide.

GENERAL LANDSCAPE MIXES

Our Earth Carpet® general landscape mixes offer quality, time tested products that fit a variety of conditions and budgets. These options are great for general landscape projects including home lawns, parks, playgrounds and more.





Elite







KENTUCKY BLUEGRASS/PERENNIAL RYEGRASS MIXES

Kentucky Bluegrass and perennial ryegrass based Earth Carpet[®] mixes perform under stress from heat and wear, and are ideal for home lawns, commercial turf, golf courses, athletic fields, playgrounds and more.

SEEDI	NG LBS/	,000 SQ FT	STRE	SS TOLE			SEEDII	NG LBS/1	,000 SQ FT	STRE	SS TOLE		:
NEW	OVER		НЕАТ	WEAR	DROUGHT	TRAFFIC	NEW	OVER		НЕАТ	WEAR	DROUGHT	TRAFFIC
BLUE	CARPE	®					PRO-	SPORTS	®				
	able in 20	8 50#						ble in 20	8 50#				
2-4	1-3		4	5	3	5	3-5	2-3		4	5	3	5
	5	 home lawns Best for med sun to light sl Includes adva disease, streated Persists in va high traffic Best results va maintenanced 100% Kentuck 	hade anced ge ss & pest rying clir with mod	enetics v toleran natic co lerate to	with incre ce nditions high	eased &			 & other high (Best for measure to light and the sum to light and the set of the	dium to h shade vanced g ess & pes arying clii & tear with moo xe y Bluegra	eavy soil enetics v t tolerand matic con derate to ss (4 Elite	types in with incre ce nditions high ST e Varieti	eased , with T (interview) ies)
SPO	RTS PAR	K® OS					CHAN	IPION					
Availa	able in 20) & 50#					Available in 5, 20 & 50#						
3-5	2-3		4	5	3	4	6-8	3-5		4	5	3	4
		 Ideal for renov Best for med sun to light sl Includes adva disease, streated Persists in va heavy wear & Best results weated maintenanced 	ium to he hade anced ge ss & pest rying clir & tear with mod	eavy soil enetics v toleran natic co	types in with incre ce nditions,	full eased			 Ideal for rend sun to light: Includes ad disease, stre Persists in v heavy wear 	dium to h shade vanced g ess & pes arying cli	eavy soil enetics v t tolerand	types in vith incr ce	n full eased
		50% Kentucky 50% Perennial	-						100% Perenni	al Ryegra	ss (4 Elite	e Varieti	es)

SLOPE & SHADE MIXES

Our specialty turf mixes, designed for shade and slopes, include elite varieties that thrive under full sun or deep shade - perfect for neglected soil and shady areas.

SEEDI	NG LBS/1	,000 SQ FT	STRE	SS TOLE	STOLERANCE SEEDING LBS/1,000 SQ FT STRESS TOLER				RANCE				
NEW	OVER		НЕАТ	WEAR	DROUGHT	TRAFFIC	NEW	OVER		НЕАТ	WEAR	DROUGHT	TRAFFIC
CARE	-FREE®				NEW	FORMULA	SHAD	Y PLAC	E®				
Availa	ble in 5,	20 & 50#					Availa	ble in 5,	20&50#				
6-8	3-4		3	2	4	3	5-8	3-4		3	2	3	3
		 Ideal for cabin minimal maint Best for light to to deep shade Includes adva disease, stress Persists in var where soil fer Handles little minimal mow 35% Creeping 1 25% Hard Fesc 	enance to heavy anced gr ss & pes ying clir tility is c to no m ing Red Fes	e is desin y soil typ enetics w t toleran matic co hallenge aintenar	red es in full with incre ce nditions, ed nce & pre lite Varie	sun eased efers			 Ideal for home densely shade Best for medi sun to moder Includes adva increased dis pest toleranc Persists in var provides ever full sun areas 40% Chewings 40% Creeping 	ed areas um to he ate shac anced ge ease, st e rying clir n transiti	eavy soil de enetics v ress & matic co fon from ST (2 Elite	types in with nditions shaded f Varieties	full & :0)
highe	est qualit	ed has provided u y products and n de the turf needed	Fescue scue (1	(1 Elite Elite Vari in.com/menu in.com/men	Variety) ety) Carth (Carth (market. We	istently h	ave the Crosse	40% Creeping 10% Kentucky 10% Perennial	Bluegra	ss (1 Elit	e Variety e Variety))

Duell Higbe, General Manager Sioux Falls Canaries Baseball

Elite Varieties - Many of our mixes feature elite turf varieties. An "elite" variety is an improved variety holding the most distinguished characteristics of that species. For optimal performance, look for mixes containing elite varieties in our Earth Carpet® seed guide.









Shade Tolerant ST

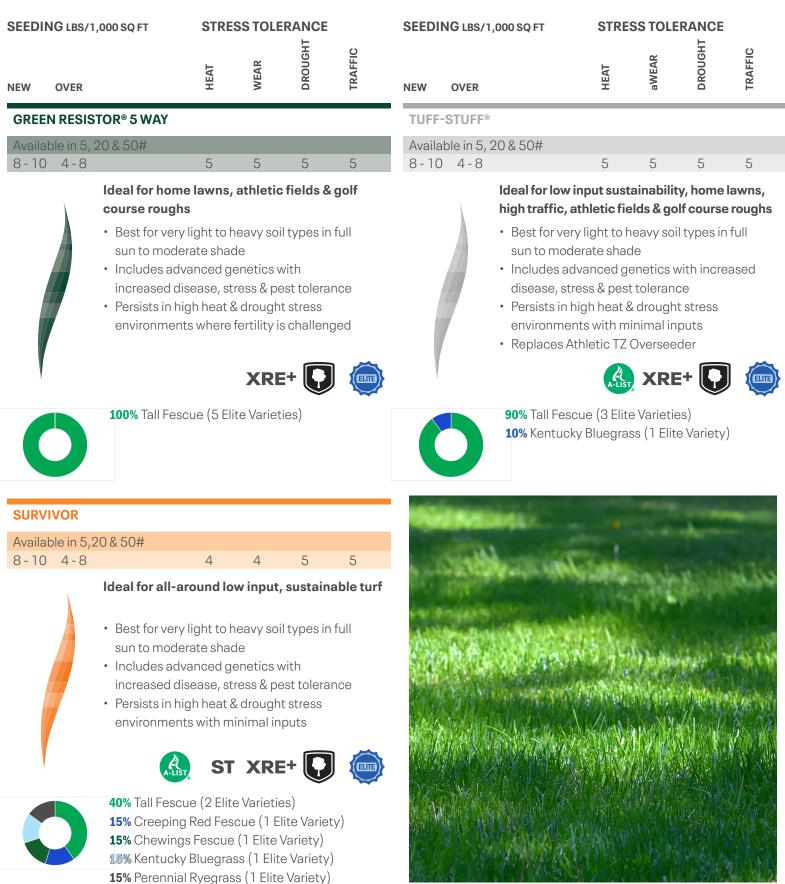


CONTRACTOR OF CASE

Rating scale: 1 = Worst, 5 = Best

TALL FESCUE BASED MIXES & BLENDS

Tall fescue based Earth Carpet[®] mixes offer high quality, durable turf for many conditions including low maintenance applications and in limited water or drought areas where sustainable turf and conservation are needed.



Elite Varieties - Many of our mixes feature elite turf varieties. An "elite" variety is an improved variety holding the most distinguished characteristics of that species. For optimal performance, look for mixes containing elite varieties in our Earth Carpet[®] seed guide.

BENTGRASS

A cool season grass used almost exclusively on golf course putting greens and fairways, creeping bentgrass is characterized by persistence under extremely low cutting heights and very dense, uniform, stoloniferous growth and rapid recuperation. It requires high input maintenance and expert management to cope with resulting diseases. Bentgrass is adapted to a wide range of climates yet is susceptible to many diseases, due to the stress levels under which it performs.

La Crosse Seed is a proud division of DLF, a global leader in turf and forage seed development. Below is a showcase of some of the many elite varieties we offer.

Supply production can be volatile across seasons, get your order in early!

Agronomic Information

Uses: Golf greens, tees, fairways	Seeding rates:	1 - 2 lbs/1,000 sq ft
Identification: Pointed tip leaf, flat and smooth in appearance. Lighter	Germination:	5 - 10 days
to very dark green color, vertical growth habit, dense growth habit,	Growth habit:	Stolons
tolerates very low mowing.	Approx. seeds per lb:	6,000,000 - 7,000,000
Establishment: Quick germination, aggressive to medium-aggressive growth habit, vertical growth habit without tendency to thatch. Good spring green-up, color retention and wear tolerance. High maintenance, quality turfgrass.	Blade:	1 - 2 mm, pointed tip, flat, smooth









FINE FESCUE

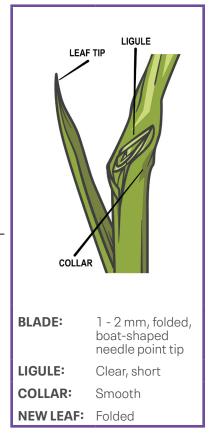
Three grasses go under the common name of fine fescue: chewings fescue, creeping red fescue and hard fescue. All survive extreme cold and combine well with other cool season grasses. None of the fine fescues tolerate wear and tear, but they have the ability to grow in dry shade. Hard fescue has a strong bunching habit that makes it appear less refined than other lawn grasses, but will persist in difficult sites that are unusually cold, windy and dry.

La Crosse Seed is a proud division of DLF, a global leader in turf and forage seed development. Below is a showcase of the many elite varieties we feature in our mixes.

Supply production can be volatile across seasons, get your order in early!

AGRONOMIC INFORMATION

USES:	Shaded lawns, ground cover
IDENTIFICATION:	Narrow-leaved, cool season perennial and creeping and/or bunch growth habit, found mostly in shaded areas. Leaves have folded vernation (stem) and a dull underside.
ESTABLISHMENT	Slow establisher like tall fescue. Ideal for shade.
SEEDING RATES:	4 - 6 lbs/1,000 sq ft
GERMINATION :	7 - 14 days under prime conditions
GROWTH HABIT :	Bunch, creeping and/or spreading, slow growing
APPROX. SEEDS PER LB:	500,000 - 615,000, depending on species



					TE	RAITS RELATIVE	TO SPECIES TYPE	
	CHANTILLY CREEPING RED FESCUE		High summer stress tolerance Wear tolerant	 Disease resistant Endophyte enhanced Excellent spring density 	SHADE	HEAT@DROUGHT	WEARSTRESS RESISTANT	LATERAL SPREAD
	RUDDY		Very wear tolerant at all mowing heights Superior winter hardiness with early spring green-up	 High turf quality under all maintenance levels High endophytes	SHADE	HEAT-BOROUGHT TOLERANT	WEARISTRESS WEARISTRESS RESISTANT	LATERAL SPREAD
NEW	LEONIDAS HARD FESCUE	A-LIST .	Low to high maintenance turf sites Excellent heat & drought stress	• Excellent performance in shade and sun	SHADE	HEAT-OROUGHT TOLERANT	WEARISTRESS RESISTANT	
	SR 5130 CHEWINGS FINE TESCUE	A-LIST,	Recommended for both high & low maintenance sites	 Superior disease resistance High levels of endophytes 	SHADE	HEAT-ORDUGHT TOLERANT	WEARISTRESS RESISTANT	
	QUATRO SHEEP FESCUE		Low to high maintenance turf sites Excellent performance in shade & sun	 Excellent heat & drought stress Rapid establishment, while slow growing 	SHADE	HEAT®DROUGHT	WEARISTRESS WEARISTRESS WEARISTRESS WEARISTRESS	
١								

TALL FESCUE

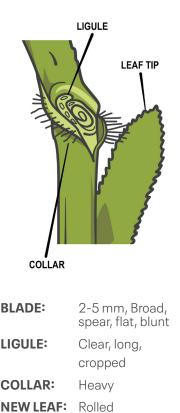
Tall fescue is a cool season grass, well adapted to sunny or partially shady areas. When densely sown, a pure stand forms a moderate to coarse-textured lawn that is uniform in appearance with good weed and disease resistance. Tall fescue tolerates warm summer temperatures and stays green during cool, but not severe winter conditions. Tall fescue is a good species to plant for general lawn use.

La Crosse Seed is a proud division of DLF, a global leader in turf and forage seed development. Below is a showcase of the many elite varieties we feature in our mixes.

Supply production can be volatile across seasons, get your order in early!

AGRONOMIC INFORMATION

USES:	Lawns, athletic fields, commercial sites, slopes, parks, reclamation sites. Ideal in sun or shade or limited water.	
IDENTIFICATION:	Deep rooted, cool season perennial bunchgrass. Grows from tillers. Leaf blades are glossy on the under-side/serrated on margins. Leaf blades may be wide with rolled vernation (stem), blades smooth on turf-type, coarse on others.	в
ESTABLISHMENT:	Slow, but not as slow as bluegrass. Needs plentiful water to establish, then very drought tolerant.	LI
SEEDING RATES:	8 - 10 lbs/1,000 sq ft	с
GERMINATION:	7 - 14 days under prime conditions	N
GROWTH HABIT :	Bunch type, tillers, some with Rhizomes	
APPROX. SEEDS PER LB:	225,000	



			TR	AITS RELATIVE TO	SPECIES TYPE
FAYETTE TALL FESCUE	• High wear & cold tolerance	Drought tolerantAggressive tillering	BROWN PATCH RESISTANT	HEAT-DORUGHT TOLERANT	WEARISTRESS RESISTANT
NEW GALLARDO	 Excellent turf quality with early spring green-up Stress & drought tolerant High density 	& rhizomes	BROWN PATCH RESISTANT	HEAT-DROUGHT TOLERANT	WEARISTRESS RESISTANT
SR 8650 TURF-TYPE TALL FERCUE	Excellent brown patch resistanceHeat & cold tolerant	High rhizome expression	BROWN PATCH RESISTANT	HEAT-DROUGHT TOLERANT	WEARISTRESS RESISTANT
TRENDING	Superior drought toleranceFast establishment	Performs well under reduced inputsAgressive tillering	BROWN PATCH RESISTANT	HEAT-DROUGHT TOLERANT	WEARISTRESS RESISTANT
NEW RACEWAY	 Excellent brown patch, gray leaf spot, and pythium disease resistance High rhizome expression 	 Superior drought & stress tolerance Performs well under reduced inputs 	BROWN PATCH RESISTANT	HEAT-DROUGHT TOLERANT	WEARISTRESS RESISTANT

EARTH CARPET®
BY DLF

					N	IIX PE		ITAGES					
		UCKY GRASS		NNIAL RASS	ANNUAL RYEGRASS			CHEWINGS FESCUE	HARD FESCUE	SHEEP FESCUE	TALL FESCUE	SEED LBS/1,00	
EARTH CARPET® BY DLF	۲	LXQ QUALITY STANDARD	۲		UXALITY STANDARD	۲	LXQ QUALITY STANDARD	۲	۲	۲	۲	NEW	OVER
PROFESSIONAL LANDSCAPE	ΛΙΧΕ	5											
CHOICE SUN & SHADE	40		30			15		15				4-6	2-4
MADISON PARKS®	50		25			25						4-6	2-4
SPARTAN [®] GRADE A	40		20			20		20				4-6	2-4
WEAR-N-TEAR [®]	40		40			10		10				4-6	2-4

GENERAL LANDSCAPE MIXES

PARK PLACE [®]	5	0	25		25		4-6	2-4
SUNNY PLACE [®]	3	3	34		33		4-6	2-4
QUICK-2-GRO	2	5	25	25	25		4-6	2-4
MICHIGAN GREEN®	1	5	15	35	35		4-6	2-4

KENTUCKY BLUEGRASS & PERENNIAL RYEGRASS BASED MIXES									
BLUE CARPET [®]	100								
	100								

PRO-SPORTS®	80		20			3-5	2-3
SPORTS PARK OS	50	÷	50			3-5	2-3
CHAMPION		1	00			6-8	3-5

SLOPE & SHADE MIXES

CARE-FREE			35	25	25	15	6-8	3-4
SHADY PLACE®	10	10	30	30	20		5-8	3-4

TALL FESCUE BASED MIXES							
GREEN RESISTOR [®] 5-WAY					100	8-10	4-8
TUFF-STUFF°	10				90	8-10	4-8
SURVIVOR	15	15	15	15	40	8-10	4-8















2-4 1-3

НЕАТ	WEAR	DROUGHT	TRAFFIC	SPREADING TECHNOLOGY	EXTREME RHIZOME EXPRESSION	SHADE TOLERANCE	GENETICS	A-LIST	IDEAL FOR:
4	4	3	4	ST					Establishing premium lawns or upgrading existing turf
4	4	3	4	ST					Establishing premium lawns or upgrading existing turf
4	4	3	4	ST					Establishing premium lawns or upgrading existing turf
4	4	3	4	ST					Establishing premium lawns or upgrading existing turf
4	4	3	3				LXQ QUALITY STANDARD		Home lawns, parks & school grounds
3	3	3	3				LXQ QUALITY STANDARD		Home lawns & commercial landscapes
3	3	3	3				LXQ QUALITY STANDARD		Areas needing quick establishment
3	3	3	3				QUALITY STANDARD		Areas needing quick establishment
4	5	3	5						Golf course tees, fairways & fine home lawns
4	5						~		
		3	5	ST					New installs or sports field renovation & other high performance areas
4	5	3 3	5 4	ST ST					New installs or sports field renovation & other high performance areas Renovating & repairing athletic fields
4	5 5								performance areas
		3	4	ST					performance areas Renovating & repairing athletic fields
		3	4	ST				A-LIST.	performance areas Renovating & repairing athletic fields
4	5	3	4	ST				A-LIST.	performance areas Renovating & repairing athletic fields Renovating & repairing athletic fields Cabin sites, hillsides or where minimal maintenance
4	5	3 3 4	4 4 3	ST ST				A-LIST,	performance areas Renovating & repairing athletic fields Renovating & repairing athletic fields Cabin sites, hillsides or where minimal maintenance is desired
4	5	3 3 4	4 4 3	ST ST	XRE+			A-LIST,	performance areas Renovating & repairing athletic fields Renovating & repairing athletic fields Cabin sites, hillsides or where minimal maintenance is desired
4 3 3	5 2 2	3 3 4 3	4 4 3 3	ST ST	XRE+				performance areas Renovating & repairing athletic fields Renovating & repairing athletic fields Cabin sites, hillsides or where minimal maintenance is desired Home lawns with moderate to densely shaded areas

KENTUCKY BLUEGRASS

Kentucky bluegrass is a cool season grass that grows best during the fall, winter and spring months when temperatures are cool. Its growth slows during the warm summer months. Kentucky bluegrass prefers full sun, but will tolerate some shade. This species is used widely throughout the U.S. where it is well adapted, but it has a poor summer performance in areas with warm to hot temperatures. When stressed by temperatures, lack of water, or poor soils, Kentucky bluegrass can be susceptible to disease and weed invasion. It can tolerate cold winters, but has a relatively low tolerance for heat and is only moderately drought tolerant. During the summer months, if stressed for water, Kentucky bluegrass can go dormant. It has moderate wear tolerance, recovering quickly from some abuse.

La Crosse Seed is a proud division of DLF, a global leader in turf and forage seed development. Below is a showcase of the many elite varieties we feature in our mixes.

Supply production can be volatile across seasons, get your order in early!

AGRONOMIC INFORMATION

1050			
USES:	Lawns, athletic fields, commercial, golf course, high maintenance. Ideal in sun.		
IDENTIFICATION:	A dense, sod forming, long-lived, perennial cool season grass that is winter- hardy. Plants spread by rhizomes. Leaf texture is boat shaped to the tip and has a folded leaf vernation (stem) with a smooth top side and a dull underside.	BLADE:	2 V- bo
ESTABLISHMENT:	Is slow to germinate and slow to establish. Aggressive to spread and fill in once	LIGULE:	CI
	established.	COLLAR:	Sr
SEEDING RATES:	2 - 4 lbs/1,000 sq ft		УE
GERMINATION :	14 - 28 days under prime conditions	NEW LEAF:	FC
GROWTH HABIT:	Rhizomes, tillers		
APPROX.	2,200,000		

SEEDS PER LB:

LEAF TIP	IGULE COLLAR
BLADE:	2 - 4 mm, V-Shaped,

BLADE:	2 - 4 mm, V-Shaped, boat-shaped tip
LIGULE:	Clear, cropped
COLLAR:	Smooth, yellowish-green
NEW LEAF:	Folded

TRAITS RELATIVE TO SPECIES TYPE

ARCADIA KENTUCKY BLUEGRASS	COMPACT MIDNIGHT TYPE	High seedling salt tolerance Excellent disease resistance & shade tolerance	 High wear & traffic tolerance across wide climate range Very dark green genetic color 	SHADE	HEAT-ODROUGHT TOLERANT	ALT ALT RANT WEARISTRESS RESISTANT	LATERAL SPREAD
FIELDER KENTUCKY BLUEGRASS	SHAMROCK TYPE X COMPACT AMERICA TYPE	Excellent traffic tolerance Excellent winter color High resistance to summer patch & leaf spot	 Excellent resistance to dollar spot, stem rust & pink snow mold Fast germination 	BROWN PATCH RESISTANT	HEAT-HOROUGHT TOLERANT	ALT ALT RRANT WEARISTRESS RESISTANT	LATERAL
SR 2100 KENTUCKY BLUEGRASS	SHAMROCK TYPE	Good disease resistance to summer patch, leaf spot, pythium blight, red thread & yellow ring	• Excellent resistance to		HEAT-DROUGHT TOLERANT	WEARISTRESS RESISTANT	LATERAL SPREAD
NEW MARTHA KENTUCK Y BLUEGRASS	COMPACT MID-ATLANTIC TYPE	Superior drought resistance & recovery Fast germination & establishment	 Superior Summer patch and stem rust Resistance Wear tolerant with rapid recovery 	SHADE	HEAT® DROUGHT TOLERANT	WEARISTRESS RESISTANT PEST RESISTANT	LATERAL SPREAD

PERENNIAL RYE	GRASS
----------------------	-------

Ryegrasses were brought to the U.S. from Europe and are now grown and planted throughout the country. Ryegrasses (both annual and perennial) can be grown on their own in the northern states for lawns. In many areas of the country, largely because this grass is so versatile, it is incorporated in seeding mixes with other grasses.

La Crosse Seed is a proud division of DLF, a global leader in turf and forage seed development. Below is a showcase of the many elite varieties we feature in our mixes.

Supply production can be volatile across seasons, get your order in early!

AGRONOMI	CINFORMATION	
USES:	Lawns, athletic fields, golf course, all general use. Excellent when used in mixes. Ideal in sun and tolerates partial shade.	
IDENTIFICATION:	A fast growing bunch type grass that spreads by tillers (stems). Leaves are dark green and glossy on the underside, tapered, pointed with a folded vernation (stem). Varieties available both as annuals, intermediates and perennials.	COLLAR
ESTABLISHMENT:	Germinates and establishes very quickly. Fills by tillers. Popular over-seeder because of quick germ.	BLADE: 2 - 4 mm, flat, sharp tip, glossy underside, red
SEEDING RATES:	6 - 8 lbs/1,000 sq ft	base at crown
GERMINATION :	5 - 10 days under prime conditions	LIGULE: Clear, long,
GROWTH HABIT :	Bunch type, tillers	cropped
APPROX.	270,000	COLLAR: Narrow
SEEDS PER LB:		NEW LEAF: Folded
		RELATIVE TO SPECIES TYPE
NEW SR 4700 PERENNIAL RYEORAS	 Broad spectrum disease resistance Superior recovery from drought Developed for permanent turfgrass blends & mixes Early spring green up 	SALT SALT SALT DIERANT SAL
FIESTA 2 PERENNIAL RYEGRA	 Spreading perennial ryegrass Wear tolerant Gray leaf spot resistant Insect resistant Insect resistant 	OUGHT ANT WEARISTRESS WEARISTRESS WEARISTRESS PEST RESISTANT SPREADING TECHNOLOGY
SIDEWAY	 Super-fast germination Wear tolerant Gray leaf spot resistant Insect resistant BROWN PATCH RESISTANT GLS ANT TOLER 	OUGHT SALT DEFRANT WEARISTRESS DESTANT SPREADING TECHNOLOGY
SR 4650 PERENNIAL RYEGRAS	 Early development of spreading rhizomes Excellent seedling & insect control & stress tolerance Disease resistance results in fewer fungicide applications High levels of viable endophyte for insect control & stress tolerance High seven fungicide applications High levels of viable endophyte for insect control & stress tolerance High seven fungicide applications 	OUGHT ANT
NEW TETRASPORT	4turf Seedling vigor · Germinates Drought tolerant · Cold & wear tolerant • Dark green color	OUGHT ANT RESISTANT GLS RESISTANT RESISTANT
NEW MIGHTIER	 Super-fast germination Excellent disease resistance resulting in fewer fungicide applications Early development of spreading rhizomes Gray leaf spot resistance 	OUGHT ANT RESISTANT COUNT COUNT RESISTANT COUNT
ZOOM 2 PERENNIAL RYEGRAS	 Gray leaf spot resistant Disease resistance with fungicide applications Early development of spreading rhizomes for excellent 	OUGHT CLS WEARISTRESS STREADING

wear tolerance

BROWN PATCH RESISTANT

GLS RESISTANT

HEAT. DROUGHT

GLS RESISTANT

WEAR/STRESS RESISTANT

Quick establishment &

wear tolerance

LIGULE

LEAF TIP

EROSION CONTROL - HYDROMULCH

ProMatrix

Erosion control for slopes ranging from mild to steep ($\leq 2H:1V$) with a typical application rate of 3500 - 4000 lbs/acre. Once applied and cured, forms an intimate bond with the soil surface to create a continuous, porous, absorbent and flexible erosion-resistant blanket that allows for rapid germination and accelerated plant growth.

Flexterra FGM (Flexible growth medium)

Erosion control for slopes ranging from mild to severe (≤0.25H:1V) with a typical application rate of 3500 - 4000 lbs/acre. Flexterra FGM rapidly sets a standard of excellence for controlling erosion and establishing vegetation on severe slopes.

Profile[®] Blend

Hydraulic mulch combines 100% Thermally Refined[®] wood fiber with a "best in class" cellulose fiber to deliver enhanced water-holding capacity, allowing for better germination, fewer washouts and reduced callbacks than other blend products.

Profile[®] Specialty Blend with Tackifier

Specialty Blend with Tackifier is higher loading compared to traditional blend products (60 lb/100 gal compared to 50 lb/100 gal). It's easy to mix and shoot with virtually any type of hydroseeder. The Thermally Refined® wood fiber content provides enough yield and coverage to handle moderate slopes which makes it a good all-around performer at an economical price.

Profile[®] 100% Wood

Profile[®] Wood is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled, Thermally Refined[™] virgin wood fibers derived from whole wood chips. The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth. **100% Wood with Tack**

Profile® Wood with Tack is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled, Thermally RefinedTM virgin wood fibers and wetting agents (including high-viscosity colloidal polysaccharides). The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

Profile CELLULOSE Mulch (100% Paper)

Profile® Cellulose Mulch is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled cellulose fibers. The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface, to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

Profile CELLULOSE Mulch (100% Paper) with Tack

Profile® Cellulose with Tack is a fully biodegradable, Hydraulic Mulch (HM) composed of 100% recycled cellulose fibers and wetting agents (including high-viscosity colloidal polysaccharides). The HM is phytosanitized, free from plastic netting, and upon application forms an intimate bond with the soil surface, to create a porous, absorbent and flexible erosion resistant blanket that allows for rapid germination and accelerated plant growth.

CoverGrow™

CoverGrow[™] is an advanced technology granular mulch made from recycled wood and cellulose fibers. Once applied to a seeded area and activated by water, the granules quickly expand and disperse to provide outstanding protection and water-holding performance right where it's needed. Whether you're spot treating smaller bare spots or hydroseeding larger areas, CoverGrow[™] is the easy and convenient way to establish vegetation.

Tacking Agent 3

Typical application rate of 30 - 60 lbs/acre. Requires no cure time to be effective! University tests and field use prove it effectively reduces soil erosion and water runoff immediately after hydroseeding. Also increases the water holding capacity of all types of hydraulic mulches.













EROSION CONTROL - GRANULAR

EZ MULCH PLUS

EZ MULCH PLUS COMBINES CELLULOUS MULCH WITH LONG STRAND CORN STOVER ALONG WITH AN ORGANIC HIGH-STRENGTH TACKIFIER THAT BIODEGRADES ADDING BENEFICIAL ORGANIC MATTER TO SOIL.

- · User-friendly alternative to messy, laborious straw mulch
- High-Strength organic tackifier bonds fibers together to prevent erosion and maintain a microenvironment for seed germination and growth
- Granular texture provides excellent coverage, making it more economical than other pelleted mulches.
- · Granules expand as they absorb water
- · Contains no grass seed and can be used in combination with almost all seed types
- · Contains a dark green color making it easy to apply while enhancing site appearance
- EZ Mulch will mix in a hydroseeder more quickly than most baled mulches and can be used in a jet agitator machine

APPLICATION

- Prepare soil and spread grass seed and soil amendments according to directions on package.
- Spread or hydraulically apply EZ Mulch over seeded area at a rate of 50-70 lbs per 1000 sq ft.
- Water EZ Mulch pellets (if dry applied) to expand cover and protect the seeded ground.
- Water seeded area daily. Seeds will germinate while EZ Mulch biodegrades adding organic content to your soil.

Slope	Lbs/1,000 Sq. Ft.
5:1	50
4:1	60
≤ 3:1 (Max Length 25 ft)	70
3:1	Use EarthGuard® Edge Pelletized Erosion Control product.
Bag Size 50 lb.	

ADDITIONAL EROSION CONTROL PRODUCTS

BLANKETS & BIO LOGS

8' x 112.5' = 100 sq. yards 6.83' x 135' = 102.5 sq. yards 9' x 25' 9" x 20' & 12" x 25'

OTHER PRODUCTS

Dimex Pro Lip Edging	20' strips with stake kits
Weed Barrier	3′ x 300′ = 100 sq yds
Weed Barrier	4′ x 300′ = 133.33 sq yds
Weed Barrier	6' x 300' = 200 sq yds
Stake Kits	4 Stakes + 1 connector/pkg
Staples (6"/4")	1 Box = 1,000 staples
Round Top Staples	1 Box = 1,000 staples
Silt Fence	3' x 100'

*Double Netted Products

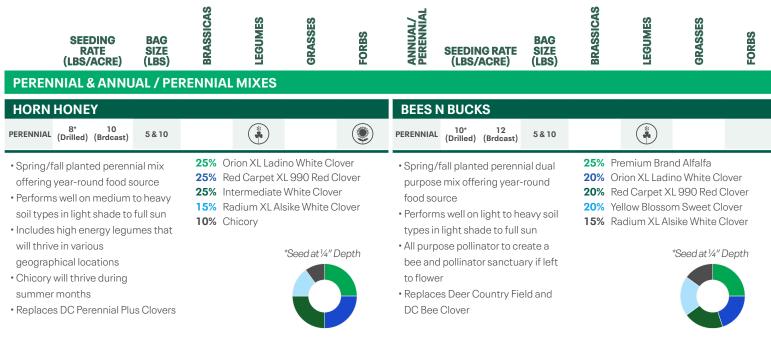
RIP RAP FABRIC

Heavy (12 oz.)	15' x 300' = 500 sq yds/roll
Medium (8 oz.)	15' x 300' = 500 sq yds/roll
Light (7 oz.)	15′ x 300′ = 500 sq yds/roll
Very Light (4 oz.)	12.5′ x 360′ = 500 sq yds/roll
	15′ x 360′ = 600 sq yds/roll

Curlex blankets available on request We carry a full line of erosion products. For more information, call 800.356.SEED.



Brier Ridge[®] and Deer Creek Seed products have been formulated to provide superior performance in establishing, attracting and keeping those trophy bucks, turkeys and upland birds on your property.



BUCK'S BANQUET PERENNIAL HABITAT HIDE-A-WAY ANNUAL/ 8* 10 PERENNIAL (Drilled) (Brdcast) ١ ۲ 5 & 10 PERENNIAL 9* 9 & 50 20% Orion XL Ladino White Clover 34% Switchgrass • Early fall planted annual & perennial • Spring/fall planted native grass 20% Rapeseed 33% Indiangrass species offering early/late fall perennial mix offering year-round 15% Purple Top Turnips 33% Big Bluestem food source bedding/buffer source 15% Tillage Radish® • For medium to heavy soil types in • Performs well on light to heavy soil 10% Intermediate White Clover light shade to full sun types in light shade to full sun 10% Radium XL Alsike White Clover · Clover/chicory remain perennial · Maintenance needed during slow 10% Chicory after brassicas winterkill establishment period; alternative to *Seed at ¼" Depth *Seed at 1/4" Depth • Portion remains green until air Annual Habitat Hide-A-Way temps reach 10 - 15°F · Will reach heights up to 8 ft tall Optimally planted 6 - 8 weeks prior See Natives Guide for establishment to killing frost guidelines • Replaces Autumn Buffet



										RESOL	ONLINE RESOURCES Go to lacrosseseed.com for planting windows and other useful information.		
	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	FORBS	ANNUAL/ Perennial	SEEDING RAT (LBS/ACRE)	BAG E SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	FORBS
ANNU	AL MIXES												
RUT N	READY						HARV	EST MOON					
ANNUAL	6* 8 (Drilled) (Brdcast)	4&8					ANNUAL	40* 50 (Drilled) (Brdcas	t) 25				
early/lat • For light shade to • Brassica temps re • Optimall killing fro growth a food sour • Brassicas after killir • Replaces Prime Tir	is remain green un each 10 - 15°F ly planted 6 - 8 wee est, sugars flush veg lifter frost for appeal roe s attract deer early ng frost s DC Brassica Blenc me Brassica	s in light htil air eks prior to getative ling fall & d & DC	20% R 20% P 10% F 10% V 10% F	illage Radis Rapeseed Purple Top Tu orage Kale (ivant Brassi orage Colla	urnips		offering • Perform types in • Portion temps r • Optima to killing • Replace	II planted annual gearly/late fall fo hs well on light to h light shade to fu remains green u reach 10 - 15°F Ily planted 6 - 8 m g frost es DC Succulent h Energy	od source heavy soil Ill sun ntil air weeks prior	6% T	rctic Brand illage Radis urple Top T		Depth
	AL HABITAT H 10* 10 (Drilled) (Brdcast)	10E-A-W	/AY				-						
bedding • Performs types in • Quick to 60 - 65°	r annual mix plante /buffer source s well on light to he light shade to full s establish, requires F soil temps for pla tion, annual altern	eavy soil sun s anting/	33% V	Summer Sel Vildlife Grair gyptian Wh	-	-							

• Can reach heights up to 8 ft tall

Perennial Habitat Hide-A-Way

Replaces DC Silver Screen





DEER CREEK SPECIES OFFERED IN SMALL PACKS (5 LB)

LEGUMES	GRASSES	BROADLEAVES
Med Red Clover	Egyptian Wheat	Buckwheat
Alsike Clover		Chicory
Berseem Clover		Tillage Radish
Ladino Clover		Rapeseed
Alfalfa Pl		Rutabaga
		Sugar Beet
		Peredovik Black Oilseed Sunflower
		Purple Top Turnip

DEER CREEK® SEED

RATES	BAG BIZE .BS)	BRASSICAS	GRASSES	FORBS	ANNUAL/ PERENNIAL	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	FORBS
PERENNIAL & ANNUAL	/ PERE	NNIAL MIXE	S								
PREMIUM WHITE CLOV	/ERS				NO-TI	LL WILDLIFE C	LOVER				
PERENNIAL 8* 10 5. (Drilled) (Brdcast) 5.	& 10)		PERENNIAL	15* 20-25 (Drilled) (Brdcast)	5&10				
 Spring/fall/frost planted perer mix offering year-round food s Performs well on medium to he soil types in moderate shade to full sun Includes high energy legumes will thrive in various geographi locations White clovers will fill in areas of overgraze due to stolon root sy 	source eavy o that ical f	 25% Radium X 25% Dutch Wh 25% Orion XL I 25% Intermed 	nite Clover Ladino White Cl	over er	mix offe • Perform soil type • Balance legumes geograp • Easy to e prepara • Replace	fall/frost planted per ring year-round foo s well on medium t es in light shade to f of high energy gra s that will thrive in v shical locations establish with mini- tion is DC Wildlife Clove lider Plus	od source o heavy full sun sses/ various mal	15% 15% 15% 15% 15%	Intermediate Radium XL Als Med Red Clov Orion XL Ladir Dutch White (Coldsnap® An High Sugar Pe	sike White C er no White Clo Clover nual Ryegra	lover over ass grass
LOGGERS TRAIL MIX					SPRIN	G GREENS ELI	TE				
PERENNIAL 20* 25 (Drilled) (Brdcast)	25				ANNUAL/	40* 50 (Drilled) (Brdcast)	25	•			
 Spring/fall planted perennial n quick to establish and produce cover Performs well on light to heavy types in light shade to full sun Will persist in low-fertility, acid wet soils and areas with minimal sunlight Replaces Deer Country Trail M 	/ soil lic, or	 30% Stargraze 15% Coldsnap 15% Orion XL I 10% Radium X 10% Creeping 10% Intermed 10% High Suga 	[®] Annual Ryegra Ladino White Clu L Alsike White C Red Fescue late White Clove	ass over Clover er egrass	annual/ multi-ye • Perform types in • Multiple	ing/summer/fall p perennial mix offer ear food source s well on light to he light shade to full s especies for maxim quality & protects s loss	ing eavy soil sun ium	10% 10% 10% 10% 10% 10% 10%	Balansa Clove Buckwheat Rapeseed Forage Soybe Intermediate Med Red Clov Peredovik Blac Sunn Hemp Green Sugar So Tetrabana XL	an White Clove er ck Sunflowe orghum Suda	r angrass Irass
ANNUAL MIXES											
QUAD PRO BEAN					SAND	Y SURE SHOT					
ANNUAL 40* 50 (Drilled) (Brdcast)	25)		ANNUAL	25* 35 (Drilled) (Brdcast)	25				۲
Spring/fall planted annual Performs well on light to heavy types in light shade to full sun Fast growing, high protein mix forage and vining soybeans Matures in approximately 60 c	/ soil (with	70% 2 Forage:15% Lablab15% Cowpea	Soybean Varieti	es	planted • Formula and dryl	ited to persist in lig and soil conditions deer and other		30% 20% 10%	Peredovik Blad Forage Soybe Buckwheat Berseem Clov Winfred Forag	an er	r
			*Seed at 1" l	Depth						*Seed at ½" E)epth

	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	WILD FLOWERS	ANNUAL/ Perennial	SEEDING RATE (LBS/ACRE)	BAG SIZE (LBS)	BRASSICAS	LEGUMES	GRASSES	FORBS
ANNUA	MIXES												
TRIPLET							WETL	AND WATERFO	WL			NEW FO	
ANNUAL (I	8* 10 Drilled) (Brdcast)	5					ANNUAL	15* 20-25 (Drilled) (Brdcast)	25				۲
 clover bler Performs v soil types i Nitrogen fi producing plot rotatio Triple purp 	vell on medium t n light shade to ixing and biomat mix excellent fo	full sun ss r	40 %	Balansa Clove Berseem Clove Crimson Clove	er	Depth	and per • Perform types in • Quick to soil term • Ideal at	ring/summer plante ennial blend hs well on light to he hlight shade to full s o establish, requires hps for planting/ger tractant for waterfo vian species	avy soil un 60-65° F mination	20% V 20% C 10% B 10% P	luckwheat Iroso Millet Iadium XL A		-
GAME B	IRD MIX						BEET &	& SWEETS					
ANNUAL (I	15* 20-25 Drilled) (Brdcast)	25					ANNUAL	8* 10 (Drilled) (Brdcast)	5&10				
 Performs v types in lig Quick to es 60-65°F s germination Ideal attra 	g/summer plant vell on light to he iht shade to full s stablish, require oil temps for pla on ctant for upland other avian spec	eavy soil sun s nting/ game	25% 15% 10% 10%	Peredovik Blac Wildlife Grain S Forage Soybea Buckwheat Japanese Mille Pearl Millet Proso Millet	Sorghum an		late fall Perform types ir Quick to green u 10 - 15 Optima prior to vegetat	lly planted 6 - 8 wee killing frost, sugars ive growth after fro ng food source early	irce avy soil sun s remain eks flush st for	20% S 15% F 10% F	ugar Beet wiss Chard orage Turni orage Kale terseem Clc		Depth
ALL SEA	SON MIX	25								1 /		1	
late fall foo Performs v types in lig Winter Rye additional following s Optimally prior to kill production and into la	vell on light to he ght shade to full s will overwinter food source the	eavy soil sun providing eks iomass early	15% 15% 15% 15% 2.5%	Buckwheat Forage Pea Defender 265 Rapeseed Forage Turnip	,	-			K				2

FERTILIZER 101

So what do those three fertilizer numbers mean? They represent three nutrients essential to strong, healthy turfgrass: nitrogen, phosphorus and potassium (potash). In a fertilizer analysis, these three nutrients are always listed in the same order. An easy way to remember what those nutrients do is "up, down, all around."

NITROGEN (N) - UP promotes dark green color and increases leaf and stem growth.

PHOSPHORUS (P) - <u>DOWN</u> stimulates early root formation and growth and prepares grass for dormancy and winter hardiness. **POTASSIUM OR POTASH (K)** - <u>ALL AROUND</u> provides overall health to grass, increasing resistance to disease and drought stress.

SIGNS OF NITROGEN DEFICIENCY

SIGNS OF POTASSIUM DEFICIENCY

Nitrogen is represented by the first number. Telltale signs of nitrogen deficiency are:

- Overall reduction in plant growth
- Loss of green color, yellowish-green color starting at the leaf tips
- Thinning of plants, overall plant density & coverage decreases

Potassium, the third number, contributes to overall health and enables the plant to tolerate heat, drought, cold and wear. It also aids in disease resistance. Potassium deficiency isn't always easy to detect:

• Overall reduction in plant growth

IDEAL PH FOR TURFGRASS IS 6.5 - 6.8

- · Loss of green color, yellowish-green color starting at the leaf tips
- Thinning of plants, overall plant density & coverage decreases

THERE ARE TWO TYPES OF NITROGEN FERTILIZERS: FAST RELEASE AND SLOW RELEASE

Fast release is typically found in agricultural fertilizers

- Works for 7 12 days
- It's fast acting almost too fast for turfgrass because nutrients often pass on through soil before roots can absorb them.

Slow release is optimal for turfgrass

- Works for 3 12 weeks
- Nutrients stay in root zone long enough for plant to absorb them, so less is wasted

SIGNS OF PHOSPHORUS DEFICIENCY

Phosphorus, the second number, is a key nutrient in seed starter fertilizers because it stimulates root growth. Telltale signs of phosphorus deficiency are:

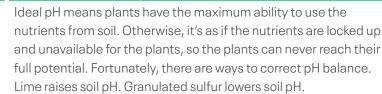
- Dark green color on lower leaves only
- Purplish color on leaf edges
- Spindly, weak growth
- · Little to no root system formed

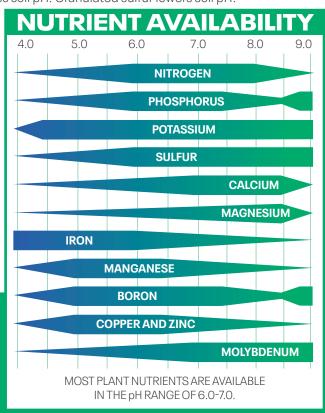
2 Big Questions to Ask When Choosing Fertilizer:

What are the results of your soil analysis? What, if any, problems have you experienced in the past with this lawn (yellowing or failure to thrive)?



Test, don't guess – There's simply no substitute for a soil test. Soil testing identifies what the soil needs and doesn't need, such as more lime or less potassium. It offers clues as to which seeds and fertilizer will give customers the best results. It only takes minutes, but the benefits last all season long.





REFERENCE

COVERAGE AREAS

GOLF COURSE

Green 4 - 7,000 ft² Tee 3,000 - 8,000 ft² Fairway 3 - 6 acres

FOOTBALL FIELD

 $160' \times 360' = 57,600 \, \text{ft}^2$

BASEBALL DIAMOND

Infield area - 90'x90' = 8, 100 ft² Home plate to L 300' - 360' Home plate to C 360' - 410' Home plate to R 300' - 360' Mound to home plate = 60'6''Home plate to 1 st = 90'Home plate to 2nd 127' 33/8" Home plate to 3rd 90'

TENNIS COURT

Regulation $78' \times 36' = 2,808 \text{ ft}^2$ Full $120' \times 60' = 7,200 \, \text{ft}^2$

SOCCER PITCH

Small 195' x 330' = 64,350 ft² Large $225' \times 360' = 81,000 \, \text{ft}^2$

RUGBY PITCH

328' x 226' = 74,128 ft²

HOCKEY PITCH

Small 301' x 164' = 49,364 ft² Large $300' \times 180' = 54,000 \, \text{ft}^2$

CRICKET SOUARE

 $90' \times 90' = 8,100 \, \text{ft}^2$

CROQUET $75' \times 40' = 3,000 \, \text{ft}^2$

LAWN BOWLING

Minimum $110' \times 110' = 12,100 \text{ ft}^2$ 1 Meter (m) = 3.281 ft Maximum 125' x 110' = 13,750 ft² 1 Meter (m) = 39.37 in

VOLLEYBALL

 $30' \times 60' = 1,800 \, \text{ft}^2$

METRIC CONVERSION

AREA

 $1 \text{ Hectare (ha)} = 107,640 \text{ ft}^2$ 1 Hectare (ha) = 2.471 acres $1 \text{ Square meter } (m^2) = 10.76 \text{ ft}^2$ 1 Square centimeter (cm²) = 0.1549 in² 1 Square mile (640 acres) = 259 ha1 Acre (43,560 ft²) =0.4047 ha $1 \text{ Square foot} = 0.0929 \text{ m}^2$ 1 Square inch = 6.452 cm²

LENGTH

1 Kilometer (km) = 0.6214 mi 1 Centimeter (cm) = 0.03937 in 1 Millimeter (mm) = 0.0393701 in1 Mile = 1.609 km1 Foot (12 in) = 0.3048 m $1 \ln ch = 2.540 cm$

TEMPERATURE

 $(^{\circ}C \times 1.8) + 32 = ^{\circ}F$ $(^{\circ}F - 32) \times 0.555 = ^{\circ}C$

YIELD

1 Metric ton/ha = 0.446 US ton/ac 1 Kilogram/ha=0.892 lbs./acre 1 US ton/acre = 2.242 mt/ha

WEIGHT

1 Metric ton (mt) =1.102UStons 1 Kiloaram (kg) = 2.205 lbs 1 Gram(g) = 0.30327 oz

HELPFUL CONVERSION Pounds/1,000 ft² to g/m² Multiply pounds by $4.8826 = g/m^2$

Pounds per acre to kg/ha Multiply pounds by 1.12

PLANTING OR RENOVATING YOUR LAWN

Follow these simple steps for starting a successful lawn.

- 1. <u>Measure area to be seeded</u> Total square footage of lot less non-lawn areas such as house, walkways and gardens.
- 2. <u>Test, don't guess!</u> Obtain soil test to identify essential soil needs/amendments (lime, potassium, phosphorus, etc). Add needed amendments per test.
- 3. Select appropriate Earth Carpet[®] seed mix Consult with your dealer for the Earth Carpet[®] mix right for you.
- 4. Spray out lawn with herbicide containing glyphosate Follow manufacturer's directions for proper use!

Continue to New Lawn or Renovation Steps >>>

New Lawn Steps

- 5. Rough Grade - Remove golf ball size+ rocks or debris. Lot slope should move downhill from house to lot edge. Level high/low areas.
- 6. Final Grade Rake and smooth. Apply a fine mist from hose to soil before seeding. No puddles should form.

Overseeding Steps

- 5. Scalp lawn down as close as possible Mow as low as possible without stalling mower. Rake and remove clippings.
- 6. Core aerate lawn to encourage abundant root growth. Plant new seed no deeper than 1/8 inch deep with mechanical planting. equipment - Equipment should be available for rental in your area.
- 7. Apply seed evenly in two directions First north & south then west & east. Use seeding rate appropriate for your mix.
- 8. <u>Apply starter fertilizer</u> Important for root development.
- 9. Roll surface Use an unfilled lawn roller to firm, but not over pack, the soil surface.
- 10. Irrigate frequently at least 3 times/day for 6 weeks Keep top ½ inch of soil moist, not soaking. Pay attention that soil does not drv in afternoon heat.
- 11. Apply 2nd application of starter fertilizer 3 weeks after seeding (CRUCIAL).
- 12. Begin weekly mowing when at 1 ½ to 2 inches Set height to 1 ½ inches. Mowing right after irrigation may hurt seedlings.
- 13. Raise mowing height to 3 to 3 ½ inches after 6 weeks Never remove more than 1/3 of grass blade at a time.
- 14. Begin standard fertilization/irrigation programs at 8 weeks Do not apply weed control products until lawn has been mowed at least 4 times & 8 weeks has passed.

Placing an Order Has Never Been Easier:

Our Customer Support Center is your link to our team of Sales Support Specialists (SSS). They are ready and willing to support you in any way they can. Specifically, our team can answer any questions you may have about orders, shipping, invoicing or marketing support.

> La Crosse Seed Headquarters 2541 Commerce Street La Crosse, WI 54603 lacrosseseed.com info@laxseed.com