



# PROFESSIONAL SEED GUIDE



A Division of Pennington Seed, Inc.

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# PREMIER VARIETIES

Many turfgrass problems are a direct result of the use of poor performing varieties or turfgrass containing undesirable grass seed (UGS). When establishing a turf, seed represents a small percentage of the total cost of a project. Think smart. Use premium quality seed. The following improved varieties have been bred and developed to produce a long-lasting, lower maintenance, more attractive, disease-free turf.

## **KENTUCKY BLUEGRASS - LISTED ALPHABETICALLY**

<b>Apollo*</b>	Very dark green color, improved disease resistance, moderately aggressive, shade tolerant and accepts 1/2" (12 mm) cutting height.
<b>Blackstone*</b>	An elite Bluegrass with early spring green-up, excellent winter color. Highly rated for disease resistance, widely adaptable.
<b>Blue Ridge</b>	Bred for increased disease resistance, dense aggressive growth habits at 2" to 3" (50.8 mm to 76.2 mm) cutting heights. One of the highest ranking varieties for genetic color with good spring green up and summer density.
<b>Blue Star*</b>	Rich dark green color with low growth habits, improved Stripe and Stem Rust resistance, and tolerant to Leaf Spot and Dollar Spot.
<b>Chateau*</b>	A vigorous, semi-dwarf variety with very good density, leafiness, and low growth habit. Excellent resistance to Leaf Spot, Stripe Smut, Red Thread, and Powdery Mildew.
<b>Glade*</b>	Outstanding wear tolerance and rapid recovery from damage with reduced vertical growth.
<b>Mallard</b>	An excellent variety to mix with other Bluegrasses due to its broad disease tolerance, dark color, and fine texture. Outstanding performance under low fertility, limited irrigation at a height of cut of 1" to 2" (25.4 to 50.8 mm)
<b>Midnight*</b>	Exceptionally dark green color, moderately aggressive with dwarf growth habit. Very good heat tolerance, improved tolerance to Leaf Spot, Dollar Spot and Stripe Smut.
<b>Monte Carlo</b>	An elite Bluegrass that displays compact, dense, fine-textured growth habits. One of the highest ranked varieties for winter color and spring density. Superbly ranked for tolerance and summer color.
<b>Nottingham*</b>	Brilliant green color, excellent density and outstanding seedling vigor. Good tolerance for Dollar Spot, Leaf Spot, Stripe Rust and Recrotic Ring Spot.
<b>Preakness*</b>	Displaying excellent heat and drought tolerance, this Bluegrass is attractive and adapts to a medium high mowing height.
<b>Princeton 105*</b>	An extremely aggressive Bluegrass variety with excellent overall turf performance and superior recuperative ability. Tolerates a low height of cut - 1/2" (12 mm).
<b>Royalé</b>	Exceptional wear tolerance, rated #1 in NTEP Progress Report No. 02-1 and dark green color. Outstanding disease tolerance and dense upright growth. Accepts a wide range of cutting hieghts from under 1"and up to 3".
<b>Serene*</b>	Good shade tolerance, improved disease resistance to Melting Out and Leaf Spot. Adaptable to a wide range of climatic conditions.
<b>Voyager*</b>	Improved heat, drought and insect resistance. Good summer turf quality and low maintenance performance.
<b>Washington*</b>	An extremely aggressive dark green Bluegrass that has improved disease resistance and fine leaf texture.

\*May not be available in all areas

# PREMIER VARIETIES, CONTINUED

## **FINE FESCUE - LISTED ALPHABETICALLY**

<b>Azure Blue Sheep Fescue*</b>	Displays outstanding drought tolerance for low maintenance sites. Attractive blue color.
<b>Berkshire Hard Fescue*</b>	Top performing, fine textured, drought tolerant with dark color in sun or shade. Excellent for low maintenance areas.
<b>Camilla Creeping Red Fescue</b>	High turf density, establishes quickly with rich, dark green color. Does well during summer heat and humidity.
<b>Discovery Hard Fescue*</b>	#1 NTEP rated. (NTEP No. 96-8) Improved resistance to Red Thread, Summer Patch and Dollar Spot. Great density. Produces an excellent turf for low maintenance and shady areas.
<b>Eureka Hard Fescue*</b>	Shade tolerant, moderate drought tolerance, ideally suited for low maintenance areas.
<b>Flyer II Creeping Red Fescue</b>	Good shade tolerance with fine texture and dark green color.
<b>Jamestown II Chewings Fescue*</b>	An excellent dark green variety with endophyte enhanced performance.
<b>Predator Hard Fescue</b>	Increased heat and drought tolerance for improved summer density. Outstanding disease resistance compared to other varieties.
<b>RaZor Creeping Red Fescue</b>	Excellent shade tolerance and improved summer density with increased disease resistance. This variety blends well with other fine fescues for low maintenance applications.
<b>7 Seas Chewings Fescue</b>	Strong performance in low maintenance applications due to increased summer density.
<b>Tiffany Chewings Fescue*</b>	Good seedling vigor, improved disease resistance, dark green color with dwarf growth habit.

## **PERENNIAL RYEGRASS - LISTED ALPHABETICALLY**

<b>Applaud</b>	#1 NTEP rated (NTEP No. 01-1) commercially available variety. Exceptional color, texture and density. Improved resistance to Grey Leaf Spot.
<b>IG2</b>	The most highly rated Gray Leaf Spot resistant variety on the market today. Outstanding color and texture along with summer heat and drought tolerance.
<b>Integra</b>	Displays increased Grey Leaf Spot resistance, fine texture and dark green color.
<b>Jet</b>	Outstanding heat and drought tolerance. Excellent Summer Leaf Spot and Crown Rust resistance.
<b>Morning Star</b>	Extremely strong growth habit, improved drought tolerance, endophyte enhanced and dark green color.
<b>Palmer III*</b>	Low growing, fine textured, attractive dark green color and endophyte enhanced.
<b>Shining Star</b>	A dark green, fine textured Perennial Rye that blends well and will transition easily when used as an overseeding on warm season grass.
<b>Sonata</b>	Superior Brown Patch and Red Thread resistance. Dark green color, dense growth with fine texture.
<b>Wind Dance</b>	Outstanding dark green color, fine textured, and exhibits improved disease resistance.
<b>Wind Star</b>	Good Brown Patch resistance with outstanding shade tolerance. Superb winter color retention.

\*May not be available in all areas

# PREMIER VARIETIES, CONTINUED

## **TURF TYPE TALL FESCUE - LISTED ALPHABETICALLY**

<b>Bandana</b>	Dark, rich green upright growth. Good resistance to Brown Patch, outstanding wear resistance with moderate density.
<b>Durana</b>	Outstanding resistance to Brown Patch and Dollar Spot, displays exceptional winter color and heat resistance.
<b>Duster</b>	Very good wear resistance with fine leaf texture and medium shade tolerance displaying dark forest-green color.
<b>Forté</b>	Exceptional turfgrass quality, fine texture, dense canopy with improved disease and wear tolerance.
<b>Greystone</b>	Bred in the southeastern United States, displays outstanding turf qualities, very disease resistant and drought tolerant.
<b>Justice</b>	Outstanding dark green, dense, fine textured turfgrass with drought and disease tolerance.
<b>OnCue</b>	Very drought and disease tolerant with very good overall turfgrass qualities.
<b>Plantation</b>	#1 NTEP rated. (NTEP No. 98-1) Excellent turf qualities, rich dark green color with fine texture and a dense canopy.
<b>Prospect</b>	Exceptional dark green color and open canopy which displays remarkable disease resistance.
<b>Rebel Exeda*</b>	Latest of the Rebel line. Bred for increased density, fine leaf texture, and improved disease resistance.
<b>Rebel Sentry*</b>	Exceptional seedling vigor. Red Thread and Brown Patch resistance, high tiller density, drought and wear tolerance.
<b>Signia</b>	Fine textured, rich dark green upright growth. Exceptional drought and wear tolerance.
<b>Tradition</b>	Endophyte enhanced, improved resistance to Brown Patch, Dollar Spot, and Leaf Spot. Good overall turf qualities.
<b>Virtue</b>	Good green color with moderate density and texture. Displays good all around turf qualities.

## **POA TRIVIALIS - LISTED ALPHABETICALLY**

<b>Fuzzy</b>	Strong seedling vigor and outstanding cold tolerance. Medium green color and medium fine texture.
<b>Sabre II*</b>	Fine leaf texture with excellent cold tolerance, moderately dark green color with low heat tolerance.
<b>SunUp</b>	Great seedling vigor with strong upright growth, but still low growing. Exceptional dark, rich green color, good shade and cold weather tolerance with low heat tolerance.
<b>Winterplay*</b>	Very dark green color and improved disease resistance. Mixes well with perennial ryegrass and bentgrass.

## **ZOYSIA GRASS**

<b>Zenith*</b>	A very drought resistant and dense variety that will recover from wear more rapidly than other varieties.
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\*May not be available in all areas

# PREMIER VARIETIES, CONTINUED

## CREEPING BENTGRASS - LISTED ALPHABETICALLY

**Crenshaw\*** Exceptional heat and wear tolerance with strong Brown Patch resistance. Dense fine textured turf that is grain free.

**L-93\*** Excellent turfgrass quality. Upright growth habit displaying resistance to Dollar Spot and Brown Patch.

**Penn A-4** Dense upright growth with dark green color and improved disease resistance.

**Penn G-6\*** Outstanding turfgrass quality. Dense vertical growth with no grain. Excellent wear and heat tolerance.

**Penncross** The standard for Bentgrass since 1955. Recovers quickly from injury. Good heat and wear tolerance.

**Penneagle** Aggressive upright growth with dark green color displaying good heat and wear tolerance, and improved salt tolerance.

**Pennlinks** Non-graining upright vigorous growth with fine leaf texture and minimal plant type segregation.

**Southshore\*** Excellent seedling vigor. Strong wear tolerance with medium deep green color and upright vertical growth.

**13M** The most Dollar Spot resistant variety on the market today. Provides outstanding summer density.

## ALKALIGRASS

**Salty\*** Salt tolerant, fine textured and low growing. Perfect for roadsides, seashore areas and alkaline soils.

## BERMUDAGRASS - LISTED ALPHABETICALLY

**Mohawk** Greatly improved cold tolerance along with drought tolerance. Provides a good green color with medium fine texture.

**Princess-77** A seeded Bermudagrass with the texture and color to match the best vegetative varieties. Improved drought tolerance, density, wear, and recovery from damage.

**Sahara** First improved seeded Bermudagrass, released in 1988. Reduced plant height with increased wear tolerance, green color and density.

**Sultan Brand** Improved turf quality with dark green color and drought tolerance. Performs very well on acidic/low pH soils.

**Sydney** Good seedling vigor with outstanding wear and drought tolerance.

**Yuma** Longer growing season than most Bermudagrasses with medium fine leaf texture and quick recovery from injury.

\*May not be available in all areas

# SEEDS FOR LAWN AND TURF - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Athletic Field Mixture</b>	An extremely wear tolerant and attractive mix for use in full sun and partial shade for use on recreational play areas. Zones: 5, 6, 7.	80% Turf Type Tall Fescue (2 varieties) 10% Perennial Ryegrass 10% Kentucky Bluegrass	7#/1000 sq. ft. or 305#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Bermuda Triangle Blend</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Buffalograss</b>	Well suited to dry, well drained soils native to the Great Plains of North America. Zones: Arid and Semi-Arid portions of 4, 5, 6, 7, 8, 9, 10, 11.	100% Buffalograss	2#/1000 sq. ft. or 88#/acre (burrs)	4/1 - 8/15
<b>Centipede grass</b>	Moderately coarse leaves provide a medium quality turf, with low maintenance requirements. Persists in light shade, grows best on acid soils with minimal maintenance. Zones: 7, 8, 9.	100% Centipede grass	1/2#/1000 sq. ft. or 20#/acre	4/1 - 7/31
<b>Ecology Mixture</b>	Designed for ecologically fragile sites where use of fertilizers are discouraged or banned. Minimal maintenance; attractive for use in sun or shade. Zones: 3, 4, 5, 6.	80% Hard Fescue 20% Chewings Fescue	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Landscaper's Choice Mixture</b>	Formulated for your specific climate to provide an acceptable stand of turfgrass.	Varies according to climatic conditions.	—	—
<b>Poa trivialis</b>	Damp shaded sites. Not for use in full sun except for extremely wet or damp areas. Zones: 2, 3, 4.	100% Poa trivialis	2#/1000 sq. ft. or 88#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Signature Series Tall Fescue Blend</b>	Provides an exceptional stand of turfgrass in sun or moderate shade. Outstanding color, density, texture and disease resistance. Zones: 5, 6, 7, 8.	A blend of 3 elite certified Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 5/31 or 8/15 - 11/15
<b>Summer Stress Mixture</b>	Use in sun or shade where heat, drought, and wear tolerance are a consideration. Especially useful for moderate to dense shade where Bermudagrass will not persist. Zones: 5, 6, 7, 8.	90% Turf Type Tall Fescue (2 varieties) 10% Kentucky Bluegrass	5#/1000 sq. ft. or 220#/acre	4/1 - 5/31 or 8/15 - 10/15

# SEEDS FOR LAWN AND TURF, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Super Shade Mixture</b>	This blend will provide turfgrass coverage under some of the most dense shade. Zones: 3, 4, 5, 6, 7, 8.	40% Creeping Red 30% Hard Fescue 20% Chewings Ryegrass 10% Kentucky Bluegrass	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Super Star Ryegrass Blend</b>	A blend of Perennial Ryegrasses especially suited for specific climates. Zones: 3, 4, 5, 6, 7.	A blend of 3 premier Perennial Ryegrass varieties.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Tri-Plex Bluegrass Blend</b>	This blend will provide the most attractive turf available north of the transition zone. Best results in full sun. Zones: 3, 4, 5, 6, 7.	A blend of 4 elite Kentucky Bluegrasses.	3#/1000 sq. ft. or 130#/acre	4/1 - 4/30 or 8/16 - 10/15
<b>Tri-Plex General Mixture</b>	All purpose mixture to meet practically every condition. May be used in full sun or light shade. Zones: 3, 4, 5, 6, 7.	34% Creeping Red Fescue 33% Perennial Ryegrass 33% Kentucky Bluegrass	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Tri-Plex General Mixture II</b>	An all purpose mixture ideally suited for northern lawns - provides a good stand of turfgrass in sun and shade. Zones: 3, 4, 5, 6.	50% Perennial Ryegrass (2 varieties) 30% Kentucky Bluegrass (2 varieties) 20% Creeping Red Fescue	6#/1000 sq. ft. or 260#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Tri-Plex Ryegrass Blend</b>	Quick to germinate and very attractive. Especially useful for summer seedings when other cool season grasses are difficult to establish. Zones: 3, 4, 5, 6, 7.	A blend of 3 elite Perennial Ryegrass varieties.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Tri-Plex Tall Fescue Blend</b>	A blend of 3 Turf Type Tall Fescues that perform well in either full sun or shade. These grasses tolerate drought and wear and provide cover for intense traffic use. Zones: 5, 6, 7, 8.	A blend of 3 premier Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 5/31 or 8/15 - 11/15
<b>Zenith Zoysia Grass</b>	Provides a dense, moderately fine textured stand of turfgrass that is drought and heat tolerant. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia Grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15



# SEEDS FOR SPORTS FIELDS AND RACE TRACKS - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Athletic Field Mixture</b>	For general purpose use on sports fields. Durable while providing heat and drought tolerance. Zones: 5, 6, 7.	80% Turf Type Tall Fescue (2 varieties) 10% Perennial Ryegrass 10% Kentucky Bluegrass	6#/1000 sq. ft. or 260#/acre	4/1 - 5/31 or 8/16 - 12/30
<b>Bermuda Triangle Blend</b>	Will provide a durable and drought resistant turfgrass. Exceptionally wear tolerant. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Professional's Select Ryegrass Blend</b>	Three elite proprietary varieties blended to provide the best disease resistant, dark green, wear tolerant stand of turfgrass. Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 premier proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 12/15
<b>Royal Blend featuring Princess 77</b>	A blend of Bermuda to provide a dense, drought tolerant stand of turfgrass that accepts a low mowing height - 3/8" (9 mm). Zones: 7, 8, 9, 10, 11.	A blend of two of the best seeded hybrid Bermudagrass varieties.	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Rugged Wear Mixture</b>	Formulated for high traffic multi-use sports field and recreation areas. Zones: 3, 4, 5, 6, 7, 8.	60% Kentucky Bluegrass (3 varieties) 40% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 4/30 or 8/16 - 10/15
<b>Supreme Sports Mixture</b>	Top quality mixture combines the quick establishment of Perennial Ryegrass with the beauty of Bluegrass. Zones: 3, 4, 5, 6, 7, 8.	80% Kentucky Bluegrass (3 varieties) 20% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Tri-Plex Bluegrass Blend</b>	This blend will provide the most attractive sports turf available north of the transition zone. Best results in full sun. Zones: 3, 4, 5, 6, 7, 8.	A blend of 4 elite proprietary Kentucky Bluegrasses.	3#/1000 sq. ft. or 130#/acre	4/1 - 4/30 or 8/16 - 12/30
<b>Tri-Plex Ryegrass Blend</b>	Quick to germinate and very attractive. For yearly reseeded on established fields which receive the most severe traffic and constant play. Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 elite proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 12/30
<b>Zenith Zoysia Grass</b>	Provides a tight knitted turf that is drought and heat tolerant. Density of turf will outcompete most weeds. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia Grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15

# SEEDS FOR SPORTS FIELDS AND RACE TRACKS

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>OVERSEEDING DORMANT BERMUDAGRASS ON LAWNS, SPORTS FIELDS AND RACE TRACKS FOR WINTER COVER</b>				
<b>Professional's Select QT Ryegrass Blend</b>	A blend of Ryegrasses designed to be durable during the season and provide an easier transition. Zones: 6, 7, 8, 9, 10.	A blend of Ryegrasses designed to be durable during the season and provide an easier transition.	300#(+)/acre	8/15 - 12/30
<b>Professional's Select Ryegrass Blend</b>	The most wear tolerant overseeding formula available today. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of 3 elite proprietary Perennial Ryegrasses.	300#(+)/acre	8/15 - 12/30
<b>Sports Club Ryegrass Blend</b>	An all purpose blend tolerant of heavy traffic on athletic fields and race tracks. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	60% Perennial Ryegrass 40% Annual Ryegrass	300#(+)/acre	8/15 - 12/30
<b>Sunrise Primo Ryegrass Blend</b>	The cleanest blend of Perennial Ryegrasses to provide the most wear tolerant overseeding formula available today. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of 3 proprietary Perennial Ryegrass varieties that are certified, Penkoted® and of Tournament Quality™.	300#(+)/acre	8/15 - 11/30
<b>Tri-Plex Ryegrass Blend</b>	Quick to germinate and very attractive. For yearly reseeding on established fields which receive the most severe traffic and constant play. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of 3 elite proprietary Perennial Ryegrasses.	300#(+)/acre	8/15 - 12/30

# SEEDS FOR GOLF COURSE USE - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>GREENS</b>				
<b>Creeping Bentgrass</b>	Low growing, tight knit, to provide a smooth rolling surface. Zones: 2, 3, 4, 5, 6, 7, 8.	100% Creeping Bentgrass - may be a blend of more than one variety	2#/1000 sq. ft. or 88#/acre	4/1 - 10/15
<b>TEES</b>				
<b>Bermuda Triangle Blend</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Creeping Bentgrass</b>	Low growing, tight knit to provide a dense playing surface. Zones: 2, 3, 4, 5, 6.	100% Creeping Bentgrass - may be a blend of more than one variety	2#/1000 sq. ft. or 88#/acre	4/1 - 10/15
<b>Poa trivialis</b>	Damp shaded sites. Not for use in full sun except for extremely wet or damp areas. Zones: 2, 3, 4.	100% Poa trivialis	2#/1000 sq. ft. or 88#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Royal Blend featuring Princess 77</b>	A blend of Bermuda to provide a dense, drought tolerant stand of turfgrass that accepts a low mowing height - 3/8" (9 mm). Zones: 7, 8, 9, 10, 11.	A blend of two of the best seeded hybrid Bermudagrass varieties.	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Rugged Wear Mixture</b>	Formulated for high traffic recreation areas. Zones: 3, 4, 5, 6, 7, 8.	60% Kentucky Bluegrass (3 varieties) 40% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 10/15
<b>Signature Bentgrass Blend</b>	Extremely attractive for light to moderate play golf courses. Cutting height up to 1/2" (12 mm). Zones: 2, 3, 4, 5, 6.	A blend of 3 premier Bentgrass varieties selected for specific climatic conditions.	2#/1000 sq. ft. or 88#/acre	4/1 - 10/15
<b>Sunrise Primo Ryegrass Blend</b>	The cleanest blend of Perennial Ryegrasses to provide the most wear tolerant overseeding formula available today. Zones: 3, 4, 5, 6, 7, 8.	A blend of elite proprietary certified Tournament Quality™ Penkoted® Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Supreme Sports Mixture</b>	Top quality mixture combines the quick establishment of Perennial Ryegrass with the beauty of Bluegrass. Zones: 3, 4, 5, 6, 7, 8.	80% Kentucky Bluegrass (3 varieties) 20% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Tri-Plex Ryegrass Blend</b>	Ideal for heavily trafficked tees. Quick to germinate and establish. Can be cut as low as 1/2" (12 mm). Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 elite proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15

# SEEDS FOR GOLF COURSE USE, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>TEES, CONTINUED</b>				
<b>Zenith Zoysia Grass</b>	Provides a tight knitted turf that is drought and heat tolerant. Density of turf will outcompete most weeds. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia Grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>FAIRWAYS</b>				
<b>Bermuda Triangle Blend</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Fairway Classic Ryegrass Blend</b>	A blend of our strongest and most durable Perennial Ryegrass varieties. Zones: 3, 4, 5, 6, 7, 8.	A blend of elite proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Fairway Creeping Bentgrass Blend</b>	Extremely attractive for light to moderate play courses under high maintenance. Cutting height 1/2" to 3/4" (12-18 mm). Zones: 2, 3, 4, 5, 6.	A blend of 3 to 4 unique performing Bentgrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 10/15
<b>Prestige Sod Bluegrass Blend</b>	Easy to maintain, tough and durable for moderate to heavy play courses. Slow to establish. Cutting height to 1/2" (12 mm). Zones: 3, 4, 5, 6, 7, 8.	4 way blend of premier Kentucky Bluegrasses selected for special conditions.	3#/1000 sq. ft. or 130#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Royal Blend featuring Princess 77</b>	A blend of Bermuda to provide a dense, drought tolerant stand of turfgrass that accepts a low mowing height - 3/8" (9 mm). Zones: 7, 8, 9, 10, 11.	A blend of two of the best seeded hybrid Bermudagrass varieties.	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Rugged Wear Mixture</b>	Formulated for high traffic recreation areas. Zones: 3, 4, 5, 6, 7, 8.	60% Kentucky Bluegrass (3 varieties) 40% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 10/15
<b>Signature Bentgrass Blend</b>	Extremely attractive certified blend for light to moderate play courses under high maintenance. Cutting height 1/2" to 3/4" (12-18 mm). Zones: 2, 3, 4, 5, 6.	A blend of certified premier Bentgrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 10/15
<b>Supreme Sports Mixture</b>	Easy to maintain, attractive, tough and durable. Zones: 3, 4, 5, 6, 7, 8.	80% Kentucky Bluegrass (3 varieties) 20% Perennial Ryegrass (2 varieties)	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15

# SEEDS FOR GOLF COURSE USE, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>FAIRWAYS, CONTINUED</b>				
<b>Tri-Plex Ryegrass Blend</b>	Useful for overseeding heavily trafficked areas. Can be cut as low as 1/2" (12 mm). Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 elite proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Zenith Zoysia Grass</b>	Provides a tight knitted turf that is drought and heat tolerant. Density of turf will outcompete most weeds. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>ROUGHS</b>				
<b>Bermuda Triangle Blend</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Buffalograss</b>	Well suited to dry, well drained soils native to the Great Plains of North America. Zones: Arid and Semi-Arid portions of 4, 5, 6, 7, 8, 9, 10, 11.	100% Buffalograss	2#/1000 sq. ft. or 88#/acre (burrs)	4/1 - 8/15
<b>Ecology Mixture</b>	Designed for ecologically fragile sites where use of fertilizers are discouraged or banned. Ideal for unmown slopes and minimal maintenance areas, sun or shade. Zones: 3, 4, 5, 6, 7.	80% Hard Fescue 20% Chewings Fescue	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Great Plains Mixture</b>	A mixture of grasses to provide good turfgrass coverage that is heat and drought tolerant. Zones: Lower 7, 8.	40% Buffalograss 40% Blue Grama 20% Hard Fescue	3#/1000 sq. ft. or 130#/acre	4/1 - 8/15
<b>Reclaim Native Rough Mixture</b>	Provides an attractive, fine textured, low maintenance cover, reminiscent of old Scottish links. Zones: 3, 4, 5, 6, 7, 8.	60% Hard Fescue 20% Little Bluestem 10% Chewings Fescue 10% Azure Blue Sheep Fescue	2.5#/1000 sq. ft. or 100#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Reclaim Native Shortgrass Mixture</b>	An attractive low-growing mixture with superior heat and drought tolerance. Perfect for use on embankments. Zones: 3, 4, 5, 6, 7, 8.	40% Little Bluestem 30% Sheep Fescue 15% Side Oats Grama 15% Blue Grama	1.5#/1000 sq. ft. or 60#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Signature Series Tall Fescue Blend</b>	Provides an exceptional stand of turfgrass in sun or moderate shade. Outstanding color, density, texture and disease resistance. Zones: 5, 6, 7, 8.	A blend of 3 elite certified Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 5/31 or 8/15 - 10/15

# SEEDS FOR GOLF COURSE USE, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>ROUGHS, CONTINUED</b>				
<b>Summer Stress Mixture</b>	Use in sun or shade where heat, drought and wear tolerance are a consideration. Especially useful for moderate to dense shade where Bermudagrass will not persist. Zones: 5, 6, 7, 8.	90% Turf Type Tall Fescue (3 varieties) 10% Kentucky Bluegrass	5#/1000 sq. ft. or 220#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Zenith Zoysia Grass</b>	Provides a dense, moderately fine textured stand of turfgrass that is drought and heat tolerant. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia Grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15

## OVERSEEDING DORMANT BERMUDAGRASS TO PROVIDE A WINTER PLAYING SERVICE

<b>Fairway Classic Ryegrass Blend</b>	A blend of durable Perennial Ryegrasses for late transition. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of our most durable Perennial Ryegrass varieties.	Tees: 15#(+)/1000 sq. ft. Greens: 30#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30
<b>Professional's Select QT Ryegrass Blend</b>	A blend of Ryegrasses designed to be durable during the season and provide an easier transition. Zones: 6, 7, 8, 9, 10.	A blend of Ryegrasses designed to be durable during the season and provide an easier transition.	Tees: 10#(+)/1000 sq. ft. Greens: 25#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30
<b>Professional's Select Ryegrass Blend</b>	Dark green color; provides fast, accurate putting. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of 3 proprietary Perennial Ryegrass varieties.	Tees: 15#(+)/1000 sq. ft. Greens: 30#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30
<b>Sports Club Ryegrass Blend</b>	An all purpose blend for roughs and fairways. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	60% Perennial Ryegrass 40% Annual Ryegrass	Tees: 20#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30
<b>Sunrise Primo Ryegrass Blend</b>	For greens, fairways and tees. The most wear tolerant overseeding formula available today. Zones: 3, 4, 5, 6, 7, 8, 9, 10.	A blend of 3 proprietary Perennial Ryegrass varieties that are certified, Penkoted® and of TournamenT Quality™	Tees: 15#(+)/1000 sq. ft. Greens: 35#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30
<b>Sunrise Primo Ryegrass Blend w/Poa trivialis</b>	Poa trivialis adds a fine textured quality to a mixture when included with Perennial Ryegrass for overseeding. Zones: 6, 7, 8, 9, 10.	85% Perennial Ryegrass (3 varieties) 15% Poa trivialis	Tees: 15#(+)/1000 sq. ft. Greens: 30#(+)/1000 sq. ft. Fairways & Roughs: 400#(+)/acre	8/15 - 11/30

# SEED MIXTURES FOR PARKS AND CEMETERIES - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Bermuda Triangle Blend</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	A blend of 3 premier certified hybrid Bermudagrasses.	2#/1000 sq. ft. or 88#/acre	4/1 - 8/15
<b>Ecology Mixture</b>	Designed for ecologically fragile sites where use of fertilizers are discouraged or banned. Minimal maintenance; attractive for use in sun or shade. Ideal for unmown slopes. Zones: 3, 4, 5, 6.	80% Hard Fescue 20% Chewings Fescue	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Professional's Select Ryegrass Blend</b>	Three elite proprietary varieties blended to provide the best disease resistant, dark green, wear tolerant stand of turfgrass. Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 premier proprietary Perennial Ryegrasses.	6#/1000 sq. ft. or 260#/acre	4/1 - 12/15
<b>Rugged Wear Mixture</b>	All purpose mixture to meet many general conditions. May be used in full sun or light shade. Zones: 3, 4, 5, 6, 7, 8.	60% Kentucky Bluegrass 40% Perennial Ryegrass	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Signature Series Tall Fescue Blend</b>	Provides an exceptional stand of turfgrass in sun or moderate shade. Outstanding color, density, texture and disease resistance. Zones: 5, 6, 7, 8.	A blend of 3 elite certified Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 5/31 or 8/15 - 11/15
<b>Southern Park Mixture</b>	All purpose mixture for use in warmer climates. Zones: 5, 6, 7, 8.	90% Turf Type Tall Fescue (3 varieties) 10% Bermudagrass	5#/1000 sq. ft. or 220#/acre	4/1 - 5/31
<b>Summer Stress Mixture</b>	Use in sun or shade where heat and drought tolerance are a consideration. Provides an attractive turf. Especially useful for moderate to dense shade where Bermudagrass will not persist. Zones: 5, 6, 7, 8.	90% Turf Type Tall Fescue (3 varieties) 10% Kentucky Bluegrass	5#/1000 sq. ft. or 220#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Super Shade Mixture</b>	Includes grasses with proven shade performance. Zones: 3, 4, 5, 6, 7, 8.	40% Creeping Red Fescue 30% Hard Fescue 20% Chewings Fescue 10% Kentucky Bluegrass	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15
<b>Tri-Plex General Mixture</b>	All purpose mixture to meet practically every condition. May be used in full sun or light shade. Zones: 3, 4, 5, 6, 7, 8.	34% Creeping Red Fescue 33% Perennial Ryegrass 33% Kentucky Bluegrass	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/16 - 10/15

# SEED MIXTURES FOR PARKS AND CEMETERIES, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Tri-Plex General Mixture II</b>	An all purpose mixture ideally suited for northern lawns - provides a good stand of turfgrass in sun and shade. Zones: 3, 4, 5, 6, 7, 8.	50% Perennial Ryegrass (2 varieties) 30% Kentucky Bluegrass (2 varieties) 20% Creeping Red Fescue	6#/1000 sq. ft. or 260#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Tri-Plex Ryegrass Blend</b>	Ideal for use on heavily trafficked areas. Quick to establish, attractive and durable. Zones: 3, 4, 5, 6, 7, 8.	A blend of 3 proprietary Perennial Ryegrass varieties.	6#/1000 sq. ft. or 260#/acre	4/1 - 10/15
<b>Tri-Plex Tall Fescue Blend</b>	A blend of Turf Type Tall Fescues that perform well in either full sun or moderate shade. These grasses tolerate drought and wear to provide cover for intense traffic use. Zones: 5, 6, 7, 8.	A blend of 3 premier Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 5/31 or 8/15 - 11/15



# SEED MIXTURES FOR PASTURES - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>All Season Mixture</b>	An ideal combination of grasses and legumes for livestock producers in areas of light to moderate snow cover to provide high quality, palatable forage all season long. Zones: 5, 6.	55% Orchardgrass 25% Timothy 10% Tetraploid Perennial Ryegrass 5% Diploid Perennial Ryegrass 5% Clover	30-40#/acre	4/1 - 5/31 or 9/1 - 10/31
<b>Buffalograss</b>	Well suited to dry, well drained soils native to the Great Plains of North America. Zones: Arid and Semi-Arid portions of 4, 5, 6, 7, 8, 9, 10, 11.	100% Buffalograss	2#/1000 sq. ft. or 88#/acre (burrs)	4/1 - 8/15
<b>Cheyenne Bermudagrass</b>	Provides an extremely durable, thick pasture and makes excellent hay. Cheyenne is one of the most drought, cold, and salt tolerant Bermuda varieties available. Zones: 6, 7, 8, 9, 10, 11.	100% Bermudagrass	15#/acre	4/1 - 8/15
<b>Fall Feeder Mixture</b>	A mixture designed to provide high quality feed late into the season. Zones: 5, 6.	70% MaxQ™ Tall Fescue 10% Tetraploid Perennial Ryegrass 10% Timothy 5% Diploid Perennial Ryegrass 5% Clover	30-40#/acre	4/1 - 5/31 or 9/1 - 10/31
<b>Great Plains Mixture</b>	A mixture of grasses to provide good coverage that is heat and drought tolerant. Zones: 6, 7, 8.	40% Buffalograss 40% Blue Grama 20% Hard Fescue	3#/1000 sq. ft. or 130#/acre	4/1 - 8/15
<b>Jesup Minus Tall Fescue</b>	Fungus free. Excellent seedling vigor. Zones: 6, 7, 8.	100% Tall Fescue	20-25#/acre	9/1 - 11/1
<b>MaxQ™ Enhanced Tall Fescue</b>	Non toxic forage tall fescue. Excellent plant persistence. Non toxic endophyte for excellent animal performance. Abundant high quality forage. Zones: 6, 7, 8.	100% Tall Fescue	20-25#/acre	9/1 - 11/1
<b>Overseeding Mixture</b>	An outstanding mixture of grasses and legumes for frost seeding, dormant seeding, or drilling to thicken and/or repair existing pastures. Zones: 5, 6.	35% Diploid Annual Ryegrass 20% Tetraploid Perennial Ryegrass 20% Diploid Perennial Ryegrass 10% Hybrid Ryegrass 15% Clover	30-40#/acre	4/1 - 5/31 or 9/1 - 10/31
<b>Passerel Plus</b>	Widely adapted Annual Ryegrass. Late maturing, cold tolerant, rust resistant, high yielding. Zones: 5, 6, 7, 8, 9.	100% Annual Ryegrass	25-35#/acre	9/1 - 11/1

# SEED MIXTURES FOR PASTURES, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Pennleaf</b>	Hybrid Pearl Millet. Rapid regrowth. Tolerates low pH, high quality summer annual. Excellent leaf to stem ratio and drought tolerance. Excellent emergency pasture. Zones: all.	100% Pearl Millet	25-30#/acre	4/15 - 6/15
<b>Perfecta Pasture Mixture</b>	Designed for pastureland for horses, cattle, sheep, or other livestock. Also good for areas with minimal maintenance. Zones: all.	Blended for specific climatic conditions.	25#/acre	9/1 - 11/1
<b>Ranchero Frio Brand Bermudagrass Blend</b>	A blend of Bermudagrasses to provide outstanding protein and hay. Zones: 7, 8, 9, 10, 11.	100% Bermudagrass	15#/acre	4/1 - 8/15
<b>Summergrazer III</b>	Hybrid Sorghum Sudangrass. Widely adapted with rapid regrowth. Provides emergency pasture. Zones: all.	100% Sorghum Sudangrass	20-25#/acre grazing 50#/acre hay	4/15 - 6/15
<b>Supergraze</b>	Cold tolerant, rust resistant, late maturing mixture of cool season annual grasses. Will provide grazing in 30-45 days. Grazing from late fall through early summer. Zones: 5, 6, 7, 8, 9.	75% Grain Rye 25% Ryegrass	100-125#/acre	9/1 - 11/1
<b>Wintergrazer 70</b>	Excellent late fall and winter forage. Cold tolerant, widely adaptable, tolerates acidic soils. Zones: 5, 6, 7, 8, 9.	100% Rye Grain	100-125#/acre	9/1 - 11/1

# SEED MIXTURES FOR MEADOWS AND NATIVE AREAS - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Annual Wildflower Mixture</b>	Very showy mixture of all annual wildflowers that will bloom from spring until frost. Zones: 3, 4, 5, 6, 7, 8.	Contains: Bachelor Button, Baby's Breath, Scarlet Flax, Calendula, Cosmos, Indian Blanket, Corn Poppy, Catchfly, Baby Snapdragon, Sulphur Cosmos, Plains Coreopsis	16#/acre*	4/1 - 5/31
<b>Ecology Mixture</b>	Designed for ecologically fragile sites where use of fertilizers are discouraged or banned. Ideal for unmown slopes and minimal maintenance areas, sun or shade. Zones: 3, 4, 5, 6.	80% Hard Fescue 20% Chewings Fescue	4#/1000 sq. ft. or 170#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Great Plains Mixture</b>	A mixture of grasses to provide good coverage that is heat and drought tolerant. Zones: 7, 8.	40% Buffalograss 40% Blue Grama 20% Hard Fescue	5#/1000 sq. ft. or 125#/acre	4/1 - 8/15
<b>Northern Wildflower Mixture</b>	Easy to establish, persistent and attractive mixture of wildflower species for a colorful, natural look. Zones: 4, 5, 6.	Contains: Bachelor Button, Lance-Leaved Coreopsis, Baby's Breath, Baby Snapdragon, Scarlet Flax, Lewis Flax, Evening Primrose, Corn Poppy, Catchfly, Black Eyed Susan, Purple Coneflower, Oxeye Daisy	16#/acre*	4/1 - 5/31 or 8/16 - 10/1
<b>Perennial Wildflower Mixture</b>	Colorful mixture of perennial wildflowers for use in low maintenance meadows. Zones: 5, 6, 7, 8.	Contains: Lance-Leaved Coreopsis, Black Eyed Susan, Purple Coneflower, Oxeye Daisy, Lewis Flax, Blanket Flower, Dames Rocket, Yarrow, Gay Feather, New England Astor, California Poppy	16#/acre*	4/1 - 5/31 or 8/15 - 10/15
<b>Reclaim Native Grass Mixture</b>	Broadly adapted native mixture. Slow to establish. Tolerates poor soil conditions. Reaches a mature height of 3-5 feet. Zones: 3, 4, 5, 6.	30% Little Bluestem 20% Indiangrass 20% Azure Blue Fescue 15% Side Oats Grama 10% Big Bluestem 5% Switchgrass	40-60#/acre	4/1 - 6/15
<b>Reclaim Native Shortgrass Mixture</b>	An attractive low-growing mixture with superior heat and drought tolerance. Perfect for use on embankments. Zones: 3, 4, 5, 6, 7, 8.	40% Little Bluegrass 30% Sheep Fescue 15% Side Oats Grama 15% Blue Grama	60#/acre*	4/1 - 5/31 or 8/15 - 10/15

# SEED MIXTURES FOR MEADOWS AND NATIVE AREAS, CONTINUED

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Reclaim Southeast Native Grass Mixture</b>	Specially formulated mixture for southeastern United States conditions. Zones: 7, 8.	35% Indiangrass 20% Little Bluestem 20% Switchgrass 15% Big Bluestem 10% Lovegrass	40-60#/acre	3/1 - 5/31
<b>Semi-Shady Wildflower Mixture</b>	Mixture especially designed to grow in most areas in partially shaded sites. Zones: 4, 5, 6.	Contains: Baby's Breath, Lance-Leaved Coreopsis, Purple Coneflower, Rocket Larkspur, Black Eyed Susan, Dames Rocket, Oxeye Daisy, Corn Poppy	16#/acre*	4/1 - 5/31 or 8/15 - 10/15
<b>Southern Wildflower Mixture</b>	Colorful mixture specifically designed for sunbelt states. Includes twelve persistent wildflowers. Zones: 6, 7, 8.	Contains: Baby's Breath, Annual Mallow, Scarlet Flax, Chicory, Dames Rocket, Painted Daisy, Sulphur Cosmos, Lance-Leaved Coreopsis, Black Eyed Susan, Indian Blanket, Oxeye Daisy, Cosmos	16#/acre*	3/1 - 5/15 or 9/1 - 11/1
<b>Texarkana Wildflower and Buffalograss Mixture</b>	Buffalograss will help to prevent soil erosion. Zones: 7, 8.	—	16# wildflowers and 44# Buffalograss/acre*	9/1 - 11/1
<b>Texarkana Wildflower Mixture</b>	A mixture of wildflowers specially designed for arid climatic conditions. Zones: Arid and Semi-Arid regions of 7, 8.	Contains: Texas Bluebonnets, Indian Blanket, Black Eyed Susan, Plains Coreopsis, Chicory, Blue Flax, Evening Primrose, Sulphur Cosmos, Rocket Larkspur, Mexican Hat, Annual Phlox, Bachelor Buttons	16#/acre*	9/1 - 11/1
<b>Tropical Wildflower Mixture</b>	A mixture of wildflowers especially suited for hot and humid climates. Zones: 8, 9.	Contains: Indian Blanket, Plains Coreopsis, Annual Phlox, Claspig Coneflower, Oxeye Daisy, Sulphur, Cosmos, Scarlet Sage, Texas Plume, Sweet Alyssum, Lance-Leaved Coreopsis, Scarlet Flax, Painted Daisy, Cosmos	2#/5000 sq. ft. or 16#/acre*	10/1 - 2/15
<b>Wildflower and Fine Fescues</b>	Hard or sheep fescue is a non-aggressive grass which helps prevent soil erosion while the wildflowers establish.	Hard or Sheep Fescue with your choice of wildflower mixture.	16# wildflowers 25# Hard Fescue or Sheep Fescue/acre*	4/1 - 5/31 or 8/15 - 10/15

# WILDLIFE HABITAT - LISTED ALPHABETICALLY

Rackmaster fall mixtures contain many annual grasses mixed with annual and perennial legumes. Like the spring mixtures, the fall mixes are regionally developed to provide the best plantings money can buy for your area. Cool season plots are important to help build up carbohydrates needed as stored fat to survive the harsh winter months. Maintaining good body conditioning through the rut and the winter season can mean a big difference in a wildlife management program. Passerel Plus Annual Ryegrass, Wintergrazer 70 Rye, Ladino white clover, alfalfa, red clover, crimson clover, wheat, oats and Austrian winter peas are just a few of the ingredients found in Rackmaster mixtures.

\*All Rackmaster products are coated with a unique germination enhancement treatment called GermMax. This treatment will make the seed germinate faster, produce deeper roots, and make food plots more palatable, nutritious and attractive to wildlife.

Rackmaster spring mixtures are truly important for a good spring and summer planting program. Deer need a good high quality food source in the summer months more than any other time of year. Rackmaster will provide the fuel to develop antler mass, body size, milk for developing fawns and overall health for the entire deer herd. Soybeans, iron and clay peas, buckwheat, sunflower, millet, sorghum and in some areas, deer vetch make up the perfect mixture of seed ingredients to create an ideal food source and excellent cover for deer, turkey, dove and quail. High in protein and extremely palatable, Rackmaster summer plots provide deer with proper nutrition throughout the spring and summer months.

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Deer Greens</b>	Cool season annual forage. High protein. Use in mixture or alone. Prolific green winter forage. Zones: all.	50% Rape 30% Kale 20% Turnip	10#/acre	9/1 - 11/1
<b>Pennington Duck Mixture</b>	Provides feeding areas along lakes, ponds, and swamps. Zones: 6, 7, 8.	60% Japanese Millet 20% White Proso Millet 10% Buckwheat 10% Penngrain DR Grain Sorghum	40#/acre	4/1 - 8/15
<b>Pennington Wild Turkey Mixture</b>	A mixture of perennial grasses and common grains which will give you permanent cover and can be stripped every year with other plantings. Zones: 5, 6, 7, 8.	20% Pensacola Bahia 20% Buckwheat 20% Chufas 20% White Proso Millet 15% Penngrain DR Grain Sorghum 5% Ladino Clover	2#/1000 sq. ft. or 40#/acre	4/1 - 8/15
<b>Rackmaster Clover Blend</b>	Produces high quality clover forage to aid antler development and animal health for deer and wild turkey. Zones: 5, 6, 7, 8.	100% Clover	8#/acre	8/15 - 10/15
<b>Rackmaster Fall Deer Mixture</b>	A mixture of grasses and legumes for fall planting that will give the deer and turkey a steady source of nutritional food throughout the winter and spring season. Zones: all.	Blended for specific climatic requirements.	75#/acre	8/15 - 11/1
<b>Rackmaster Spring/ Summer Deer Mixture</b>	A mixture of warm season annuals developed to provide proper nutrition to maintain the health of the deer herd.	Blended for specific climatic requirements.	50#/acre	4/1 - 8/1

Also available from Pennington: Dove Mix, Quail Mix, Pheasant Mix.

**MIXTURES FOR EROSION AND SEDIMENTATION CONTROL ON: ROADSIDES, DUMP AND LOGGING SITES, STORM WATER CHANNELS, DETENTION BASINS, ETC. - LISTED ALPHABETICALLY**

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Bermudagrass</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 6, 7, 8, 9, 10, 11.	100% Bermudagrass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Bermuda/Bahiagrass Mixture</b>	A mixture of Bermuda and bahia to establish a quick stand of turf that will persist. Zones: 7, 8, 9, 10, 11.	50% Bermuda 50% Bahiagrass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Bermuda/Millet Mixture</b>	Millet is mixed with the Bermuda for quick establishment as a nurse grass. The millet will die out leaving the Bermuda as a permanent grass. Zones: 7, 8, 9, 10, 11.	80% Bermuda 20% Millet	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Great Plains Mixture</b>	A mixture of grasses to provide good turfgrass coverage that is heat and drought tolerant. Zones: 7, 8.	40% Buffalograss 40% Blue Grama 20% Hard Fescue	5#/1000 sq. ft. or 125#/acre	4/1 - 8/15
<b>Hydro Mixture</b>	A mixture specially suited for each climatic condition and designed to provide the best results for each zone. Zones: all.	Blended for specific climatic conditions.		
<b>Reclaim Conservation Mixture - Damp Formula</b>	Designed for revegetating and stabilizing disturbed and low maintenance areas in moist soils. Zones: 3, 4, 5, 6.	45% Tall Fescue 10% Perennial Ryegrass 25% Poa trivialis 10% Salty Alkaligrass 5% Redtop 5% Reed Canarygrass	5#/1000 sq. ft. or 200#/acre	4/1 - 5/31 or 8/15 - 10/15
<b>Reclaim Conservation Mixture - Dry Formula</b>	Designed for revegetating and stabilizing disturbed and low maintenance areas in dry soils. Zones: 3, 4, 5, 6.	40% Tall Fescue 20% Weeping Lovegrass 10% Hard Fescue 10% Chewings Fescue 10% Perennial Ryegrass 5% White Clover 5% Switchgrass	4#/1000 sq. ft. or 160#/acre	4/1 - 5/31 or 8/15 - 10/15

**MIXTURES FOR EROSION AND SEDIMENTATION CONTROL ON: ROADSIDES, DUMP AND LOGGING SITES, STORM WATER CHANNELS, DETENTION BASINS, ETC., CONTINUED**

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Reclaim Native Grass Mixture</b>	Broadly adapted native mixture, slow to establish, tolerates poor soil conditions. Reaches a mature height of 3-5 feet. Zones: 3, 4 5, 6.	30% Little Bluestem 20% Indiangrass 20% Azure Blue Fescue 15% Side Oats Grama 10% Big Bluestem 5% Switchgrass	40-60#/acre	4/1 - 6/15
<b>Reclaim Southeast Native Grass Mixture</b>	Specially formulated mixture for southeastern United States conditions. Zones: 7, 8.	35% Indiangrass 20% Little Bluestem 20% Switchgrass 15% Big Bluestem 10% Lovegrass	40-60#/acre	3/1 - 8/31
<b>Runway and Roadside Mixture</b>	Specially developed for areas of high salt or alkaline soil types. Zones: 3, 4 5, 6, 7, 8.	60% Turf Type Tall Fescue 30% Alkaligrass 10% Hard Fescue	200#/acre	4/1 - 5/31 or 8/15 - 11/15

# SEED FOR SOD PRODUCTION - LISTED ALPHABETICALLY

ITEM	CHARACTERISTICS	INGREDIENTS	SEEDING RATES	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>Bentgrass</b>	Fine turf applications, i.e. golf course greens, tees, and fairways and high quality athletic turf. Zones: 2, 3, 4, 5, 6, 7.	100% Bentgrass	2#/1000 sq. ft. or 90#/acre	4/1 - 5/31  or 8/15 - 10/15
<b>Centipedegrass</b>	Moderately coarse leaves provide a medium quality turf, with poor wear tolerance. Persists in light shade, grows best on acid soils with minimal maintenance. Zones: 8, 9.	100% Centipedegrass	1/2#/1000 sq. ft. or 20#/acre	4/1 - 7/31
<b>Prestige Sod Bluegrass Blend</b>	Use on home lawns, industrial and commercial turf areas, sports fields and race tracks. Best results are attained in full sun. Zones: 3, 4, 5, 6, 7.	A blend of 4 elite proprietary Kentucky Bluegrasses.	#3/1000 sq. ft. or 130#/acre	4/1 - 9/30
<b>Princess-77</b>	Provides an extremely durable, thick stand of turfgrass. Bermudagrass is one of the most drought tolerant and salt tolerant species available. Zones: 7, 8, 9, 10, 11.	100% Bermudagrass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15
<b>Signature Series Tall Fescue Blend</b>	Use where heat and drought tolerance are a consideration. Provides an attractive durable turf in sun or shade. Especially useful for moderate to dense shade where Bermudagrass will not persist. Zones: 5, 6, 7, 8.	A blend of 3 elite certified proprietary Turf Type Tall Fescues.	8#/1000 sq. ft. or 350#/acre	4/1 - 10/30
<b>Summer Stress Mixture</b>	Use where heat and drought tolerance are a consideration. Provides an attractive durable turf in sun or shade. Especially useful for moderate to dense shade where Bermudagrass will not persist. Zones: 5, 6, 7, 8.	90% Turf Type Tall Fescue (3 varieties) 10% Kentucky Bluegrass	5#/1000 sq. ft. or 220#/acre	4/1 - 10/30
<b>Zenith Zoysia Grass</b>	Provides a tight knitted turf that is drought and heat tolerant. Density of turf will outcompete most weeds. Zones: 6, 7, 8, 9, 10, 11.	100% Zoysia Grass	1#/1000 sq. ft. or 44#/acre	4/1 - 8/15



# SEEDS FOR SPECIAL USE SITUATIONS - LISTED ALPHABETICALLY

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>DROUGHT TOLERANT BUNCHGRASS</b>						
Bluegrass, Big*	<i>Poa ampla</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	20#	81 - 49	L	4/1 - 5/31 or 8/16 - 10/15
Buffalograss*	<i>Buchloe dactyloides</i>	arid and semi-arid regions of 4, 5, 6, 7, 8, 9, 10, 11	88# (burrs)	85 - 80	A	4/1 - 8/15
Fescue, Hard	<i>Festuca longifolia</i>	3, 4, 5, 6, 7	160#	96 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Sheep	<i>Festuca ovina</i>	3, 4, 5, 6, 7	160#	96 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Tall	<i>Festuca arundinacea</i>	3, 4, 5, 6, 7	200#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Grama, Blue	<i>Bouteloua gracilis</i>	4, 5, 6, 7	15#	45 - 75	A	4/1 - 5/31 or 8/16 - 10/15
Grama, Side Oats	<i>Bouteloua curtipendula</i>	4, 5, 6, 7	15#	60 - 60	L	4/1 - 5/31 or 8/16 - 10/15
Indiangrass*	<i>Sorghastrum nutans</i>	3, 4, 5, 6, 7, eastern 8	15#	60 - 60	A	4/1 - 5/31 or 8/16 - 10/15
Lovegrass, Weeping	<i>Eragrostis curvula</i>	4, 5, 6, 7	15#	95 - 87	A	4/1 - 8/15
Needle and Thread	<i>Stipa comata</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#	29 - 13	L	4/1 - 5/31 or 8/16 - 10/15
Ricegrass, Indian*	<i>Oryzopsis hymenoides</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	20#	94 - 11	L	4/1 - 5/31 or 8/16 - 10/15
Sand Dropseed	<i>Sporobolus cryptandrus</i>	3, 4, 5, 6, 7	10#	93 - 80	L	4/1 - 5/31
Wheatgrass, Beardless	<i>Agropyron inerme</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#		A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Bluebunch	<i>Agropyron spicatum</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#		L	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Siberian	<i>Agropyron sibiricum</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#	76 - 89	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Slender	<i>Agropyron trachycaulum</i>	3, 4, 5, 6, 7	25#	95 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Wildrye, Russian	<i>Elymus junceus</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	20#	91 - 85	A	4/1 - 5/31 or 8/16 - 10/15

\*Provides wildlife value    <sup>1</sup>For low maintenance areas    <sup>2</sup>A=Available, L=Limited Availability, NA=Not Available

# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>DROUGHT TOLERANT SOD FORMING GRASSES</b>						
Bermudagrass	<i>Cynodon dactylon</i>	6, 7, 8, 9, 10, 11	45#	87 - 85	A	4/1 - 8/15
Bluegrass, Canada	<i>Poa compressa</i>	3, 4, 5, 6, 7	80#	80 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Bluegrass, Kentucky	<i>Poa pratensis</i>	3, 4, 5, 6, 7	80#	85 - 80	A	4/1 - 4/30 or 8/16 - 10/15
Bluestem, Big*	<i>Andropogon gerardi</i>	3, 4, 5, 6, 7, eastern 8	15#		A	4/1 - 5/31 or 8/16 - 10/15
Bluestem, Little*	<i>Andropogon scoparius</i>	3, 4, 5, 6, 7, eastern 8	15#	55 - 60	A	4/1 - 5/31 or 8/16 - 10/15
Creeping Red Fescue	<i>Festuca rubra</i>	3, 4, 5, 6, 7	120#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Timothy*	<i>Phleum pratense</i>	3, 4, 5, 6, 7	80#	99 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Intermediate	<i>Agropyron intermedium</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#	89 - 91	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Pubescent	<i>Agropyron trichophorum</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#	93 - 85	L	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Streambank	<i>Agropyron riparium</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#		A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Thickspike	<i>Agropyron dasystachyum</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#		L	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Western*	<i>Agropyron smithii</i>	3, 4, 5, 6, 7, 8	30#	80 - 80	A	4/1 - 5/31 or 8/16 - 10/15
<b>SAND STABILIZING PLANTS</b>						
Beachgrass	<i>Ammophila spp.</i>	4, 5	Vegetative		L	4/1 - 5/31 or 8/16 - 10/15
Blowout Grass	<i>Redfieldia flexuosa</i>	arid and semi-arid regions of 4, 5, 6, 7	Vegetative		L	4/1 - 5/31 or 8/16 - 10/15
Bluestem, Sand	<i>Andropogon hallii</i>	arid and semi-arid regions of 4, 5, 6, 7	40#	40 - 60	L	4/1 - 5/31 or 8/16 - 10/15
Lovegrass, Sand	<i>Eragrostis trichodes</i>	4, 5, 6	5#	92 - 69	L	4/1 - 5/31 or 8/16 - 10/15
Needle and Thread	<i>Stipa comata</i>	arid and semi-arid regions of 4, 5, 6, 7	25#	29 - 13	L	4/1 - 5/31 or 8/16 - 10/15
Prarie Sandreed	<i>Calamovilifa longifolia</i>	arid and semi-arid regions of 4, 5, 6, 7	25#	85 - 75	L	4/1 - 5/31 or 8/16 - 10/15
Ricegrass, Indian*	<i>Oryzopsis hymenoides</i>	arid and semi-arid regions of 4, 5, 6, 7	20#	94 - 11	L	4/1 - 5/31 or 8/16 - 10/15
Sandhill Muhly	<i>Muhlenbergia pungens</i>	arid and semi-arid regions of 4, 5, 6, 7				4/1 - 5/31
Switchgrass*	<i>Panicum virgatum</i>	9, 10, 11	15#	95 - 75	A	4/1 - 5/31 or 8/16 - 10/15

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# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>ACID TOLERANT GRASSES</b>						
Bentgrass, Colonial	<i>Agrostis tenuis</i>	2, 3, 4, 5, 6, 7	50#	95 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Bentgrass, Creeping	<i>Agrostis palustris</i>	2, 3, 4, 5, 6, 7	50#	95 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Bermudagrass	<i>Cynodon dactylon</i>	6, 7, 8, 9, 10, 11	45#	87 - 85	A	4/1 - 8/15
Bluegrass, Canada	<i>Poa compressa</i>	3, 4, 5, 6, 7	80#	80 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Deer Tongue Grass*	<i>Panicum clandestinum</i>	humid 5, 6, 7, 8			L	4/1 - 5/31 or 8/16 - 10/15
Fescue, Chewings	<i>Festuca rubra, var. commutata</i>	3, 4, 5, 6, 7	120#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Hard	<i>Festuca longifolia</i>	3, 4, 5, 6, 7	160#	96 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Foxtail, Creeping	<i>Alopecurus arundinaceus</i>	3, 4, 5, 6	50#	90 - 80	L	4/1 - 5/31 or 8/16 - 10/15
Foxtail, Meadow	<i>Alopecurus pratensis</i>	3, 4, 5, 6	50#	90 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Red	<i>Festuca rubra</i>	3, 4, 5, 6, 7	120#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Lovegrass, Weeping	<i>Eragrostis curvula</i>	4, 5, 6, 7, 8	15#	95 - 87	A	4/1 - 8/15
Redtop*	<i>Agrostis alba</i>	3, 4, 5, 6, 7	80#	92 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Ryegrass, Perennial	<i>Lolium perenne</i>	2, 3, 4, 5, 6, 7	240#	98 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Switchgrass*	<i>Panicum virgatum</i>	3, 4, 5, 6, 7, 8, 9, 10	15#	95 - 75	A	4/1 - 5/31
<b>ALKALINE TOLERANT GRASSES</b>						
Alkali Cordgrass	<i>Spartina gracillis</i>	arid and semi-arid regions of 4, 5, 6, 7			NA	
Alkali Grass	<i>Puccinellia lemmoni</i>	arid and semi-arid regions of 4, 5, 6, 7	20#	98 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Alkaki Sacaton	<i>Sporobolus airoides</i>	arid and semi-arid regions of 4, 5, 6, 7	10#	85 - 80	L	4/1 - 5/31 or 8/16 - 10/15
Barley, Foxtail*	<i>Hordeum jubatum</i>	3, 4, 5, 6, 7, 8	55#		A	4/1 - 5/31 or 8/16 - 10/15
Bermudagrass	<i>Cynodon dactylon</i>	6, 7, 8, 9, 10, 11	45#	87 - 85	A	4/1 - 8/15
Ryegrass, Perennial	<i>Lolium perenne</i>	2, 3, 4, 5, 6, 7, 8, 9, 10, 11	240#	98 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Saltgrass	<i>Distichlis stricta</i>	arid and semi-arid regions			NA	
Wheatgrass, Crested*	<i>Agropyron desertorum</i>	arid and semi-arid regions of 4, 5, 6, 7	25#	95 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Slender	<i>Agropyron trachycaulum</i>	3, 4, 5, 6, 7	25#	95 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Streambank	<i>Agropyron riparium</i>	arid and semi-arid regions of 4, 5, 6, 7	25#		A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Tall	<i>Agropyron elongatum</i>	3, 4, 5, 6, 7	240#	98 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Western*	<i>Agropyron smithii</i>	3, 4, 5, 6, 7, 8	30#	80 - 80	A	4/1 - 5/31 or 8/16 - 10/15

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# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>ALKALINE TOLERANT GRASSES, CONTINUED</b>						
Wildrye, Basin	<i>Elymus cinereus</i>	arid and semi-arid regions of 4, 5, 6, 7	30#		NA	
Wildrye, Canada	<i>Elymus canadensis</i>	3, 4, 5, 6	30#	85 - 85	L	4/1 - 5/31 or 8/16 - 10/15
Wildrye, Russian	<i>Elymus junceus</i>	arid and semi-arid regions of 4, 5, 6, 7	20#	91 - 85	A	4/1 - 5/31 or 8/16 - 10/15
<b>GRASSES AND LEGUMES TOLERANT OF MOIST SOILS</b>						
Alkali Cordgrass	<i>Spartina gracillis</i>	arid and semi-arid regions of 4, 5, 6, 7			A	4/1 - 5/31 or 8/16 - 10/15
Bentgrass, Colonial	<i>Agrostis tenuis</i>	2, 3, 4, 5, 6, 7	50#	95 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Bentgrass, Creeping	<i>Agrostis palustris</i>	2, 3, 4, 5, 6, 7	50#	95 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Canarygrass, Reed*	<i>Phalaris arundinacea</i>	3, 4, 5, 6, 7	20#	96 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Clover, Alsike*	<i>Trifolium hybridum</i>	3, 4, 5, 6, 7, 8	15#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Meadow*	<i>Festuca elatior</i>	3, 4, 5, 6	160#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Foxtail, Creeping*	<i>Alopecurus arundinaceus</i>	3, 4, 5, 6	50#	90 - 80	L	4/1 - 5/31 or 8/16 - 10/15
Foxtail, Meadow*	<i>Alopecurus pratensis</i>	3, 4, 5, 6	50#	90 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Poa trivialis	<i>Poa trivialis</i>	2, 3, 4, 5, 6, 7	50#	85 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Redtop*	<i>Agrostis alba</i>	2, 3, 4, 5, 6	80#	92 - 90	L	4/1 - 5/31 or 8/16 - 10/15
Ryegrass, Perennial	<i>Lolium perenne</i>	2, 3, 4, 5, 6	240#	98 - 90	A	4/1 - 5/31 or 8/16 - 10/15
<b>GRASSES PROVIDING TEMPORARY COVER</b>						
Barley	<i>Hordeum vulgare</i>	all zones	200#	99 - 90	A	4/1 - 10/15
Brome, Field	<i>Bromus arvensis</i>	all zones	60#	98 - 91	A	4/1 - 10/15
Oatgrass, Tall	<i>Arrhenatherum elatius</i>	all zones	200#	85 - 90	L	4/1 - 10/15
Oats	<i>Avena sativa</i>	all zones	200#	98 - 90	A	4/1 - 10/15
Rye, Winter	<i>Secale cereale</i>	all zones	200#	97 - 85	A	8/15 - 10/15
Ryegrass, Annual	<i>Lolium multiflorum</i>	all zones	160#	98 - 90	A	4/1 - 10/15
Ryegrass, Perennial	<i>Lolium perenne</i>	all zones	240#	98 - 90	A	4/1 - 10/15
Sudangrass	<i>Sorghum vulgare var. sudanese</i>	4, 5, 6, 7	25#	98 - 80	A	4/1 - 7/31

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# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>GRASSES PROVIDING SALT TOLERANCE</b>						
<b>VERY GOOD</b>						
Alkaligrass	<i>Puccinellia spp.</i>	3, 4, 5	20#		A	4/1 - 5/31 or 8/16 - 10/15
Paspalum	<i>Paspalum vaginatum</i>	7, 8, 9, 10, 11	sod only		A	4/1 - 9/15
<b>GOOD</b>						
Barley, Foxtail*	<i>Hordeum jubatum</i>	3, 4, 5, 6, 7, 8	130#		A	4/1 - 5/31 or 8/16 - 10/15
Bentgrass, Creeping	<i>Agrostis palustris</i>	2, 3, 4, 5, 6, 7	50#	95 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Bermudagrass	<i>Cynodon dactylon</i>	6, 7, 8, 9, 10, 11	45# (common only)	97 - 85	A	4/1 - 8/15
Wheatgrass, Western*	<i>Agropyron smithii</i>	2, 3, 4, 5, 6, 7, 8	30#	80 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Tall	<i>Agropyron elongatum</i>	2, 3, 4, 5, 6	25#	94 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Wildrye, Russian	<i>Elymus junceus</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	120#	91 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Zoysia	<i>Zoysia spp.</i>	6, 7, 8, 9, 10, 11	vegetative only		A	4/1 - 10/15
<b>MODERATE</b>						
Fescue, Tall	<i>Festuca arundinacea</i>	5, 6, 7, 8	200#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Slender	<i>Agropyron trachycaulum</i>	3, 4, 5, 6, 7	25#	95 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Wheatgrass, Streambank	<i>Agropyron riparium</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	25#		A	4/1 - 5/31 or 8/16 - 10/15
<b>GRASSES PROVIDING COLD TOLERANCE</b>						
Bluegrass, Kentucky	<i>Poa pratensis</i>	3, 4, 5, 6, 7	80#	85 - 80	A	
Fescue, Chewings	<i>Festuca rubra var. commutata</i>	3, 4, 5, 6, 7	120#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Creeping Red	<i>Festuca rubra var. rubra</i>	3, 4, 5, 6, 7	120#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Hard	<i>Festuca longifolia</i>	3, 4, 5, 6, 7	160#	96 - 85	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Meadow	<i>Festuca elatior</i>	3, 4, 5, 6	160#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Fescue, Sheep	<i>Festuca ovina</i>	3, 4, 5, 6, 7	160#	97 - 80	A	4/1 - 5/31 or 8/16 - 10/15

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# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

SPECIES	SCIENTIFIC NAME	ZONES FOR ADAPTATION	SEEDING RATE PER ACRE <sup>1</sup>	MIN. % PURITY/GERM.	SPECIES AVAILABILITY <sup>2</sup>	RECOMMENDED PLANTING DATES (NORTHERN HEMISPHERE)
<b>LEGUMES</b>						
Clover, Alsike*	<i>Trifolium hybridum</i>	3, 4, 5, 6, 7, 8	15#	97 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Clover, Crimson*	<i>Trifolium incarnatum</i>	6, 7, 8	25#		A	4/1 - 8/16
Clover, Red*	<i>Trifolium pratense</i>	3, 4, 5, 6, 7	10#		A	4/1 - 8/16
Clover, White*	<i>Trifolium repens</i>	3, 4, 5, 6, 7, 8	5#	96 - 90	A	4/1 - 5/31 or 8/16 - 10/15
Flatpea	<i>Lathyrus sylvestris</i>	2, 3	40#		A	4/1 - 5/31 or 8/16 - 10/15
Legume, O'Conner's	<i>Trifolium fragiferum</i>	arid and semi-arid regions of 4, 5, 6, 7, 8	6#		A	4/1 - 8/16
Lespedeza, Korean*	<i>Lespedeza stipulacea</i>	7, 8, 9	30#	97 - 90	A	4/1 - 5/31
Lespedeza, Sericea*	<i>Lespedeza cuneata</i>	7, 8, 9	30#	98 - 90	A	4/1 - 5/31
Trefoil, Birdsfoot*	<i>Lotus corniculatus var. arvensis</i>	3, 4, 5, 6	15#	96 - 90	A	4/1 - 5/31
Vetch, Crown*	<i>Coronilla varia</i>	3, 4, 5, 6	20#	98 - 90	A	4/1 - 5/31
Vetch, Hairy	<i>Vicia villosa</i>	3, 4, 5, 6	40#		A	4/1 - 5/31
<b>GROUND COVER</b>						
Dichondra	<i>Dichondra repens</i>	arid and semi-arid 8	1#/500 sq. ft.	98 - 90	A	4/1 - 8/15

\*Provides wildlife value    <sup>1</sup>For low maintenance areas    <sup>2</sup>A=Available, L=Limited Availability, NA=Not Available

# SEEDS FOR SPECIAL USE SITUATIONS, CONTINUED

## ORNAMENTAL GRASSES

Ornamental grasses can be utilized to create a dramatic visual effect using several colors, textures, and shapes. Their landscape interest spans four seasons providing a changing look each season. The species listed below are the most popular species with valuable assets for the low-maintenance landscape.

COMMON NAME	SCIENTIFIC NAME	MATURE HEIGHT	ADAPTATION ZONES	COMMENTS
Cord Grass	<i>Spartina pectinata</i>	6 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one half of 3, 4.	Tolerates wet or dry sites and some shade.
Fescue, Blue	<i>Festuca ovina glauca</i>	6" - 15"	Perennial in zones 3, 4, 5, 6.	Attractive glaucous blue foliage. Use as a border or as ground cover.
Fountain Grass	<i>Pennisetum alopecuroides</i>	4.5 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one third of 3, 4.	Use as a border or mid-background plant. Available vegetatively or by seed.
Indian Grass	<i>Sorghastrum nutans</i>	6 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one third of 3, 4.	Easily seeded, attractive native prairie species.
Japanese Silvergrass and Cultivars	<i>Miscanthus sinensis</i>	7 - 10 ft.	Perennial in all zones.	Several popular cultivars from Condensatus to Zebra.
Miscanthus, Giant	<i>Miscanthus floridulis</i>	12 - 15 ft.	Perennial in all zones.	Use as large specimen or background plant.
Natal Grass	<i>Rhynchelytrum repens</i>	4 ft.	Tender perennial in zone 6, annual in zones 3, 4, 5, 6, 7, 8.	Easily seeded annual. Flowers are attractive with varying shades of pink.
Pampas Grass	<i>Cortaderia selloana</i>	9 - 15 ft.	Perennial in zones 7, 8, 9.	Queen of the ornamental grasses. Large showy plumes.
Plume Grass	<i>Erianthus ravennae</i>	9 - 12 ft.	Perennial in zones 5, 6, 7, 8, 9 and southern one third of 3, 4.	A more cold hardy substitute for Pampas grass.
Quaking Grass	<i>Briza maxima</i>	3 - 4 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern half of 3, 4.	Attractive dried flowers. Use as a border or specimen.
Reed, Feather	<i>Calamagrostis x acutiflora</i>	5 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one third of 3, 4.	Attractive in all seasons, blooms in June.
Reed, Giant	<i>Arundo donax</i>	12 - 15 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one third of 3, 4.	Effective screen and ground cover.
Ribbon Grass	<i>Phalaris arundinacea 'Picta'</i>	3 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern half of 3, 4.	Tolerates wet or dry sites and some shade. Prune to keep shape.
Weeping Love Grass	<i>Eragrostis curvula</i>	3 ft.	Perennial in zones 5, 6, 7, 8, 9, and southern one third of 3, 4.	Easily seeded. Graceful long leaves. Use as border or ground cover.