

*Granular Fertilizers  
Soluble Fertilizers  
Soil Surfactants  
Biostimulants  
Plant Growth Regulators  
Fungicides  
Herbicides  
Insecticides  
Seed Products  
IDOT Tollway Mixes  
Custom Seed Mixes  
Athletic Field Supplies  
Erosion Control Blankets  
Wildflowers  
Native/Wetland Mixes  
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Athletic Field Supplies  
Erosion Control Blankets  
Wildflowers  
Native/Wetland Mixes*



# NATIONAL SEED

FIELD

OF™

# Professional Product Guide

Visit Our Website: [www.natseed.com](http://www.natseed.com)

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Dear Friends,

We would like to thank each of you who has been a partner with us in the past year. We trust that our expertise, products and services have helped you meet your needs and assisted in solving your unique problems.

We continuously strive to expand our line of products and strengthen our service in order to build upon our relationship as a supplier and a friend. As partners, our goal is to make your life a little easier.

For our prospective partners, we look forward to the opportunity to display our value to you so that your job will be easier in the year ahead. Thanks again for your friendship and support.

Sincerely,

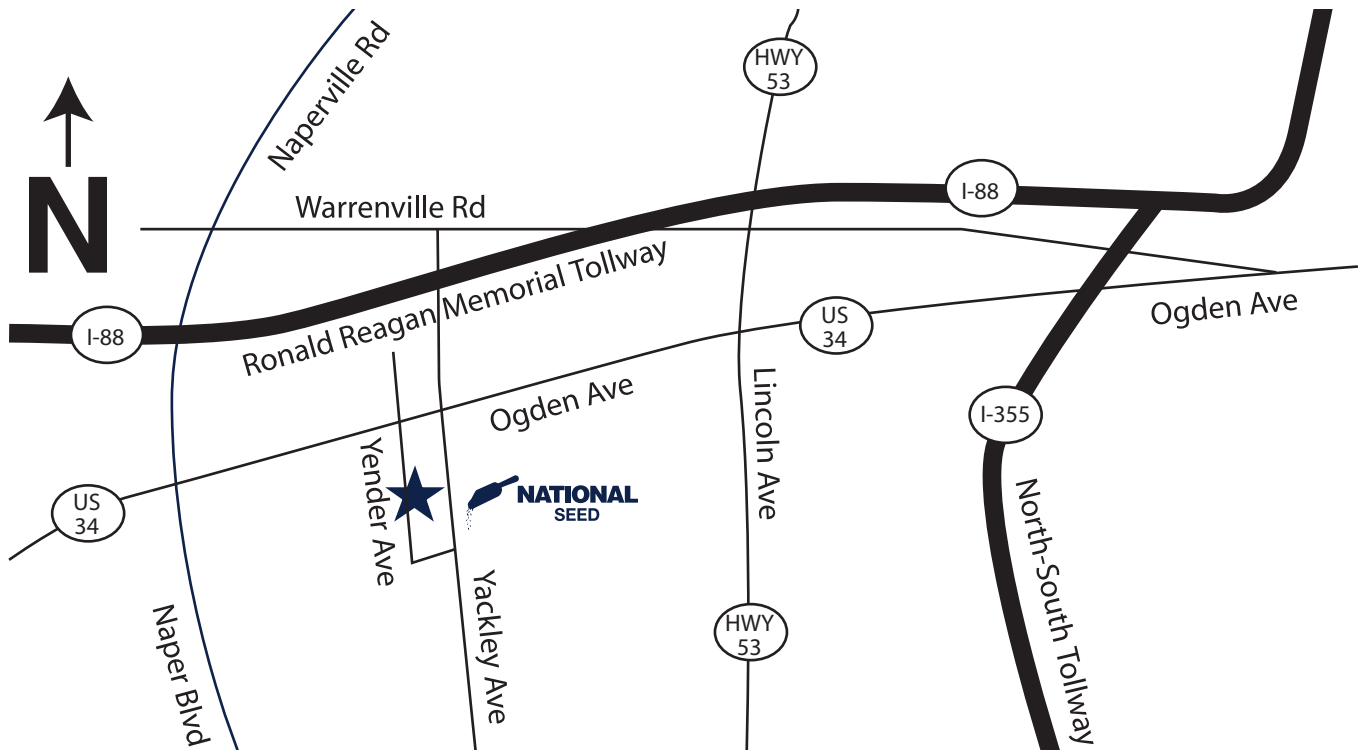
A handwritten signature in cursive script that reads "Tom Breier". The signature is written in a dark ink and is positioned above the printed name.

Tom Breier  
National Seed

**National Seed**  
4720 Yender Avenue  
Lisle, IL 60532

**Phone:** (630) 963-8787  
**Toll-Free:** (888) 963-SEED (7333)  
**Fax:** (630) 963-8814

**Hours:** Monday - Friday 8:00 a.m. - 4:30 p.m



To locate National Seed, take I-355 to the Ogden Avenue (Route 34) exit. Head West to Yender Avenue and turn left (South). National Seed is the second building on the right hand side.

### Terms of Sale

Approved accounts 30 days from date of purchase. A 1.5% service fee per month (annual percentage rate of 18%) will be charged on all balances not paid within 30 days of purchase date. **All customers should have a credit application and a Certificate of Registration for Sales Tax on file.**

### Damage or Shortage

Must be noted on invoice at time of pick-up or delivery.

### Sales Tax

All sales are subject to sales tax by the State of Illinois or in accordance with the laws of the state of the purchaser. Sales tax will be exempted with a copy of your resale certificate or "E" number on file.



The Field of Dreams™ line of turfgrass mixtures is the latest addition to National Seed’s arsenal of elite turfgrass mixtures geared for the professional turfgrass user. The Field of Dreams line of turfgrass mixtures continues to build upon National Seed’s proven results. Superior performance, improved disease resistance, improved wearability and enhanced dark green color is what you’ll get with the Field of Dreams mixtures. Try the Field of Dreams mixtures today and discover why National Seed continues to outpace our competitors in the turfgrass industry.

**Field of Dreams™ Four Horsemen Mixture**

- 25% Accent Perennial Ryegrass
- 25% Caddieshack Perennial Ryegrass
- 25% Goalkeeper Perennial Ryegrass
- 25% Top Gun Perennial Ryegrass

Seeding Rate: New lawns: 5-7 lbs. per 1,000 ft<sup>2</sup>  
 Established lawns: 3-5 lbs. per 1,000 ft<sup>2</sup>

**Field of Dreams™ Reseeder Mixture**

- 25% Accent Perennial Ryegrass
- 25% Caddieshack Perennial Ryegrass
- 25% Blue Chip Kentucky Bluegrass
- 25% Freedom III Kentucky Bluegrass

Seeding Rate: New lawns: 3-5 lbs. per 1,000 ft<sup>2</sup>  
 Established lawns: 2-3 lbs. per 1,000 ft<sup>2</sup>

**Field of Dreams™ Athletic Mixture**

- 30% Goalkeeper Perennial Ryegrass
- 30% Top Gun Perennial Ryegrass
- 20% Blue Chip Kentucky Bluegrass
- 20% Freedom III Kentucky Bluegrass

Seeding Rate: New lawns: 3-5 lbs. per 1,000 ft<sup>2</sup>  
 Established lawns: 2-3 lbs. per 1,000 ft<sup>2</sup>

**Field of Dreams™ Royal Blue Mixture**

- 25% Rugby II Kentucky Bluegrass
- 25% NuBlue Kentucky Bluegrass
- 25% Chicago II Kentucky Bluegrass
- 25% Freedom III Kentucky Bluegrass

Seeding Rate: New lawns: 3-4 lbs. per 1,000 ft<sup>2</sup>  
 Established lawns: 1-3 lbs. per 1,000 ft<sup>2</sup>

**Field of Dreams™ Gameday Mixture**

- 20% Freedom III Kentucky Bluegrass
- 20% NuBlue Kentucky Bluegrass
- 20% Blue Chip Kentucky Bluegrass
- 10% Liberator Kentucky Bluegrass
- 15% Accent Perennial Ryegrass
- 15% Top Gun Perennial Ryegrass

Seeding Rate: New lawns: 3-4 lbs. per 1,000 ft<sup>2</sup>  
 Established lawns: 1-3 lbs. per 1,000 ft<sup>2</sup>

Please call for current prices: (630) 963-8787.

Valu Mixture - Satisfactory for utility-type general usage areas where economy is important. Truly an all-purpose contractors mix with rapid establishment.

- 30% Annual Ryegrass
- 30% Accent Perennial Ryegrass
- 20% Creeping Red Fescue
- 20% Kentucky Bluegrass

Glamour Mixture - Fine-textured mix with quick germination, providing adaptability to moderate shade as well as full sunlight. Contains Kentucky bluegrass for winter hardiness and durability, along with turf-type ryegrasses for lasting appearance.

- 30% Kentucky Bluegrass 98/85
- 30% Creeping Red Fescue
- 40% Containing 2 of the following turf-type perennial ryegrasses: Accent, Goalkeeper, Caddieshack or Monterey III

Custom Mixture - Good all-purpose mix of fine-bladed grasses providing a nice appearance at a reasonable cost. Bluegrass provides a lasting beauty and durability, while the turf-type ryegrasses establish quickly and help control troublesome weeds.

- 50% Kentucky Bluegrass 98/85
- 30% Accent Perennial Ryegrass
- 20% Creeping Red Fescue

Pride Mixture - Very good quality mix for those who consider appearance, disease resistance and wearability important features for home lawns.

- 20% Blue Chip Kentucky Bluegrass
- 20% Freedom III Kentucky Bluegrass
- 20% Chicago II Kentucky Bluegrass
- 20% Creeping Red Fescue
- 20% Accent Perennial Ryegrass

Premium Shady Mixture - Designed for low sunlight areas and requires only moderate maintenance. Early spring or fall seedings are best when foliage cover is minimal. Fertilization and water requirements are low and also does well on sandy soils.

- 40% Creeping Red Fescue
- 30% Monterey II Perennial Ryegrass
- 20% Chewings Fescue
- 10% Newport or NuGlade Kentucky Bluegrass

Barrel Grass Mixture - Consists of over-runs, odd lots, floor sweepings, etc. We have our seed analysts issue purity test results. Great for roadsides, parks, landfills, etc. Mixtures are offered as available.

Super Shady Mixture - Outstanding mixture of selected varieties designed for difficult areas of heavy shade. Wears better than normal shady mixtures and is more aggressive.

- 25% Freedom III Kentucky Bluegrass
- 25% Creeping Red Fescue
- 25% Chewings Fescue
- 15% Accent Perennial Ryegrass
- 5% Sabre II Poa Trivialis
- 5% Supranova Poa Supina

National Links Mixture - Excellent blend of fine fescues ideally suited for low maintenance and shady areas. Superb under low managed conditions with unmatched shade tolerance.

- 25% MX-86 or Quatro Sheep Fescue
- 25% Improved Chewings Fescue
- 25% Improved Creeping Red Fescue
- 25% Rescue 911 or Reliant Hard Fescue

Triplet Tall Fescue Blend - Excellent drought tolerance and wearability. Used on athletic fields where other grasses can't take the abuse.

- 1/3 Arid II or III Tall Fescue
- 1/3 Pixie Tall Fescue
- 1/3 Amigo Tall Fescue

Roadway Mixture - Designed for roadsides, medians, etc. - where utility, salt tolerance and adaptability to varying soil conditions are important. Low maintenance required.

- 30% Fults Distans Alkaligrass
- 25% Rescue 911 Hard Fescue
- 25% Accent or Top Gun Perennial Ryegrass
- 20% Newport Kentucky Bluegrass

Pasture Mixture - Formulated for efficient grazing in Midwestern part of the United States.

- 25.50% Vernal Alfalfa
- 22.00% Timothy
- 16.50% Mammoth Red Clover
- 14.00% Alsike Clover
- 8.50% Annual Ryegrass
- 8.00% Orchard Grass
- 5.50% Ladino Clover

**\*\* Please note -**  
Substitutions may be made for specific varieties based on availability and/or market conditions



## GREENSKEEPER LINE

	Traffic Areas	Sports Fields	Shade Tolerance	Disease Resistance	Heavy Soils	Light Soils	Fertility Needs	Seeding Rate per 1,000 ft <sup>2</sup> -New Lawns	Seeding Rate per 1,000 ft <sup>2</sup> -Established Lawns	Days to Germinate Under Ideal Conditions	Cutting Height (Inches)	Moisture Needs
VALU	G	G	P	G	G	G	L	4-6#	3-4#	5-10	2-3	L
CUSTOM	V	V	G	G	V	V	L	4-6#	3-4#	7-14	2-3	L
GLAMOUR	G	G	G	F	G	V	L	4-6#	3-4#	7-14	2-3	L
PREMIUM SHADY	F	P	E	V	G	E	L	4-6#	3-4#	10-14	2-3	L
PRIDE	V	V	F	E	V	V	M	3-5#	2-3#	10-14	1-3	M
ROADWAY	G	G	G	V	V	G	L	3-5#	2-3#	7-14	2-3	L
SUPER SHADY	G	G	E	G	F	G	L	4-6#	3-4#	7-14	2-3	L
NATIONAL LINKS	F	F	E	V	G	E	L	4-6#	2-3#	10-14	2-3	L
TRIPLET TALL FESCUE	E	E	G	V	V	V	M	8-10#	5-7#	10-14	2-3	L

## FIELD OF DREAMS LINE

ATHLETIC	E	E	F	E	E	V	H	3-5#	2-3#	7-14	2-3	M
RESEEDER	E	E	F	E	E	V	H	3-5#	2-3#	7-14	1-3	M
ROYAL BLUE	E	E	F	E	V	G	H	2-3#	1-2#	14-21	1-3	M
FOUR HORSEMEN	E	E	F	V	E	V	H	5-7#	3-5#	5-7	2-3	M
GAMEDAY	E	E	F	E	V	V	H	3-5#	2-3#	7-14	1-3	M

E = Excellent

P = Poor

V = Very Good

H = High

G = Good

M = Medium

F = Fair

L = Low

**Bentgrasses**

Alpha Creeping Bentgrass  
Highland Colonial Bentgrass  
L-93 Creeping Bentgrass  
Penncross Creeping Bentgrass  
Penneagle Creeping Bentgrass  
Pennlinks Creeping Bentgrass  
Pennway Creeping Bentgrass  
Putter Creeping Bentgrass  
Seaside Creeping Bentgrass  
T1 Creeping Bentgrass  
T2 Creeping Bentgrass

**Bluegrasses**

Aspen Kentucky Bluegrass\*  
Award Kentucky Bluegrass\*  
Blackstone Kentucky Bluegrass  
Bluechip Kentucky Bluegrass\*  
Chicago II Kentucky Bluegrass\*  
Everest Kentucky Bluegrass\*  
Everglade Kentucky Bluegrass\*  
Freedom III Kentucky Bluegrass\*  
Impact Kentucky Bluegrass\*  
Kentucky Bluegrass 98/85  
Kentucky Bluegrass 85/80  
Liberator Kentucky Bluegrass\*  
Midnight Kentucky Bluegrass  
Newport Kentucky Bluegrass  
NuBlue Kentucky Bluegrass  
NuDestiny Kentucky Bluegrass\*  
NuGlade Kentucky Bluegrass\*  
Odyssey Kentucky Bluegrass\*  
Park Kentucky Bluegrass  
Poa Trivialis 90/85  
Rambo Kentucky Bluegrass\*  
Rubens Canada Bluegrass  
Rugby II Kentucky Bluegrass\*  
Total Eclipse Kentucky Bluegrass\*  
Tsunami Kentucky Bluegrass\*

\* 5-Steps Above Varieties

**Fine Fescues**

Aruba Red Fescue  
Audubon Red Fescue  
Azure Sheep Fescue  
Chewings Fescue  
Creeping Red Fescue  
EcoStar Hard Fescue  
J5 Chewings Fescue  
Jamestown II Chewings Fescue

**Fine Fescues (Continued)**

Marker Red Fescue  
MX-86 AE Sheep Fescue  
Pennlawn Red Fescue  
Rescue 911 Hard Fescue  
Southport Chewings Fescue

**Tall Fescues**

Amigo Tall Fescue  
Amigo E Tall Fescue  
Arabia Tall Fescue  
Arid III Tall Fescue  
Blade Runner Tall Fescue  
Covenant Tall Fescue  
Inferno Tall Fescue  
Kentucky 31 Tall Fescue  
Mustang 3 Tall Fescue  
Pixie Tall Fescue  
Quest Tall Fescue  
Rendition Tall Fescue  
Titan Limited Tall Fescue  
Vegas Tall Fescue  
Wrangler II Tall Fescue

**Ryegrasses**

Admire Perennial Ryegrass  
Accent Perennial Ryegrass  
Annual Ryegrass  
A.S.A.P. Perennial Ryegrass  
CaddieshackII Perennial Ryegrass  
Continental Perennial Ryegrass  
Gator 3 Perennial Ryegrass  
Goalkeeper Perennial Ryegrass  
Magic Perennial Ryegrass  
Monterey II Perennial Ryegrass  
Monterey III Perennial Ryegrass  
Navajo Perennial Ryegrass  
Omega III Perennial Ryegrass  
Premier Perennial Ryegrass  
Revenge GLX Perennial Ryegrass  
Sunshine 2 Perennial Ryegrass  
Top Gun Perennial Ryegrass

**Miscellaneous**

Crown Vetch w/Innoculant  
White Dutch Clover  
Oats  
Fults Alkaligrass  
Timothy  
Winter Wheat  
Winter Rye

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and/or market conditions





**Award** - Intense dark green color that displays a darker green than all other bluegrasses with fine textured, upright leaves. Excellent spring and summer disease resistance as well as good leafspot resistance and shade tolerance.

**Chicago II** - High tolerance to summer heat stress with resistance to many turf diseases and excellent shade tolerance. Chicago II displays a dark green color with excellent spring-time performance as well as unmatched performance under close-mowing conditions.

**Everest** - Peak performance under high temperature and humidity. Resistant to melting out, stripe smut and necrotic ring spot. Produces rapid, reliable establishment for an elite bluegrass.

**Everglade** - Ranked #1 at the sports turf mowing height of 1 to 2 inches. Everglade exhibits dark green color and a narrow leaf blade, combined with broad disease and pest resistance.

**Freedom III** - Ranked 8th in overall turf quality in the most recent 2002 NTEP data. Adapts well to high and low maintenance conditions. Impressive fall density and competes well against *Poa Annua*. "Top 10" in fall density and outstanding resistance to leaf spot and leaf rust.

**Liberator** - Superior overall quality - NTEP 1996 ratings put Liberator at the top for overall quality, under all conditions and at all locations. This variety shows characteristics of having a dense-compact growth, high sod strength as well as a dark, year round color.

**NuDestiny** - Ranked 4th out of 173 varieties in the 2000 NTEP trials. NuDestiny has a dark green color, fine-bladed leaf width and is quick to germinate.

**NuGlade** - Provides excellent leaf spot and rust resistance as well as outstanding shade tolerance. NuGlade also demonstrates superb fairway performance even under 1/2 inch mowing.

**Rambo** - Excellent turf density in the spring, summer and fall. Rambo is known to adapt to both high and low maintenance areas while tolerating 1/2 inch mowing heights.

**Rugby II** - Demonstrates an attractive, shiny, rich dark green appearance even at 1/2 inch mowing heights. Rugby II also provides excellent resistance to leaf spot and melting out while adapting to the shade or full sun.

**Total Eclipse** - Superior drought and heat tolerance and good sod strength for tight knitting. Total Eclipse sets a new standard of excellence in close cut bluegrass. This variety also demonstrates excellent brown patch and melting out resistance.

**Tsunami** - One of the best Jacklin Seed varieties in spring ground coverage and shade tolerance. Broad-spectrum disease and insect resistance built in. Tsunami delivers a dark green, dense turf that's extremely wear tolerant. Its wiry, rapidly forming rhizome system makes for strong knitting and quicker, easier sod lifting.

## Perennial Ryegrasses Characteristics

**Accent Perennial Ryegrass** - Endophyte enhanced while providing good seedling vigor for rapid establishment. Accent demonstrates excellent summer performance and high density while scoring among the top 20 varieties in the 1994 NTEP trial.

**Caddieshack Perennial Ryegrass** - Enhanced with endophytes to provide excellent resistance to several turfgrass surface-feeding insects. Caddieshack also demonstrates medium-fine leaf texture with high density and dark green color.

**Goalkeeper Perennial Ryegrass** - Displays a medium-fine leaf texture and high density. Goalkeeper also sports a high endophyte content and good performance under net blotch stress.

**Monterey II Perennial Ryegrass** - Ranked among the top 15 varieties in the 1994 NTEP trials. Monterey is highly stress resistant while maintaining a dense, fine leaf texture and a medium-dark green color.

**Top Gun Perennial Ryegrass** - Exhibits a medium-dark green color, medium-fine texture while maintaining high density and improved brown patch resistance.

## Fine & Tall Fescue Characteristics

**Arid III Tall Fescue** - Darker than most tall fescues, Arid III demonstrates excellent brown patch recovery, resistance to pink snow mold and stem rust. This endophyte enhanced variety blends well with bluegrasses to 1.5 inch mowing heights.

**Aruba Red Fescue** - A drought tolerant variety with excellent shade performance. Aruba is persistent on low pH, infertile sites. This medium green, fine-textured variety demonstrates excellent seeding vigor and produces outstanding sod forming turf.

**MX-86AE Sheep Fescue** - The first sheep fescue with endophyte! This variety is excellent for low maintenance areas yet still maintains a deep rich color under high stress conditions.

**Pixie Tall Fescue** - Noted for its dark green color, Pixie exhibits superb performance for spring and summer density. Also, Pixie is endophyte enhanced and provides improved brown patch resistance.

**Rescue 911 Hard Fescue** - Excellent for low maintenance areas, Rescue is endophyte enhanced with a fine texture and rich dark green color. Rescue demonstrates excellent shade tolerance and improved brown patch resistance.

**Titan Limited Tall Fescue** - Offers an extensive roots system that goes down deep, way deep – much deeper than bluegrass, ryegrass, or fine fescues! That means Titan Limited plants can access nutrients far below the surface. It also means you'll have a tough time tearing it up with foot, or wheel traffic.

## Miscellaneous Seed Characteristics

**Fults Puccinellia Distans** - A perennial, non-creeping variety with excellent turf quality and superb salt and high pH tolerance. Ideal adaption where low quality effluent or reclaimed water is used.

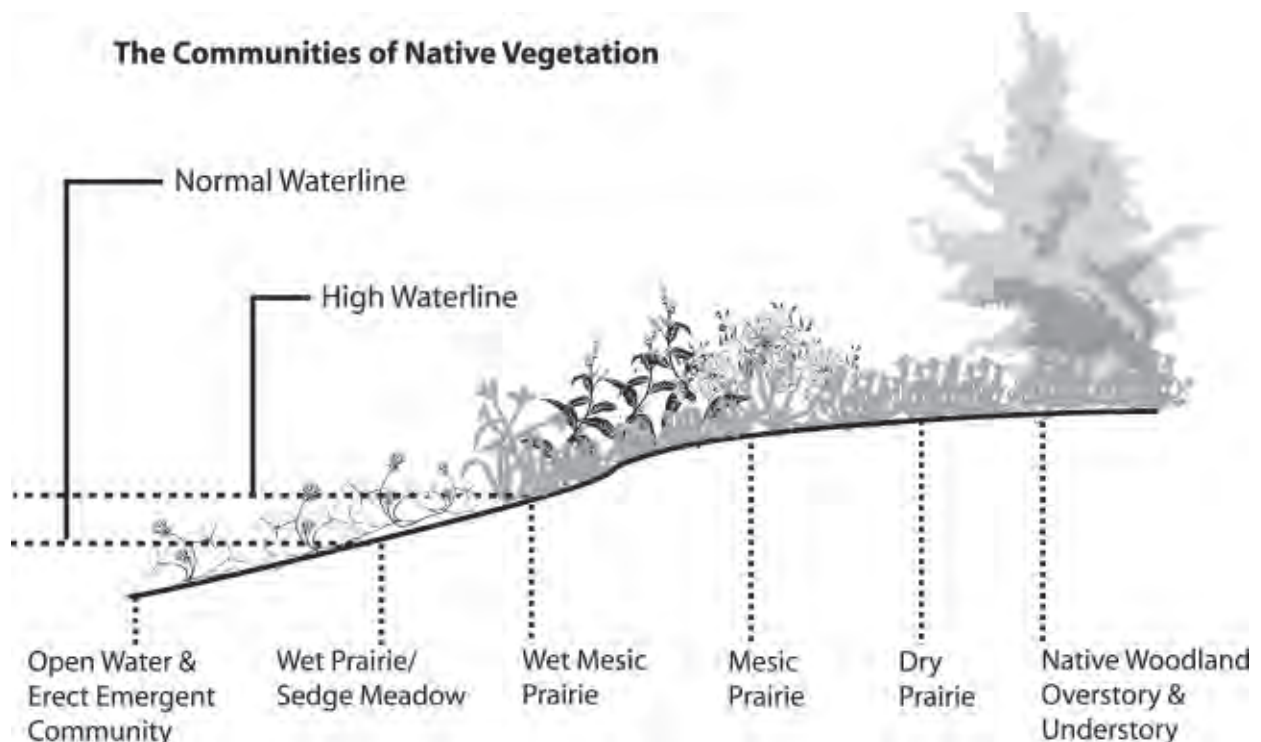
**Poa Supina** - The elite shade grass for dense shade in cool season areas. Designed for deep shade and little water although it has been used on golf courses, lawns, and athletic field turf for over twenty years. It grows where no grass has grown before. It's wear tolerance and aggressive growth make it ideal for high maintenance and high wear areas.

**Sabre Poa Trivialis** - Unsurpassed ability to thrive in damp, shady areas. Sabre provides low soil temperature germination, tolerance to close mowing, resistance to iron chlorosis and quick spring transition.

## National Seed Native Mixtures (Plugs are also available)

Broad Spectrum Prairie for Clay Soils  
 Emergent Shoreline/Wet Meadow w/Flowers  
 Ground Water Wetland  
 Hardy Salt Tolerant  
 Low Profile Dry Prairie w/Flowers  
 Low Profile Emergent Shoreline/Wet Meadow  
 Low Profile Mesic to Dry Prairie Grasses  
 Low Profile Mesic to Dry Prairie w/Flowers  
 Low Profile Mesic Prairie Grasses  
 Low Profile Mesic Prairie w/Flowers  
 Low Profile Prairie w/Accent and Flowers  
 Low Profile Prairie w/Flowers  
 Low Profile Prairie w/Flowers for clay soils  
 Low Profile Shoreline/Wet Meadow Grasses  
 Low Profile Wet to Mesic Prairie Grasses  
 Low Profile Wet to Mesic Prairie w/Accent and Flowers  
 Low Profile Wet to Mesic Savanna w/Flowers  
 Mesic to Dry Savanna Grasses  
 Mesic to Dry Savanna Open Woods w/ Flowers  
 Mesic Savanna/Closed Woods w/Flowers  
 Moist Prairie for Clay Soils  
 Plateau™ Prairie + Post-Emergent  
 Plateau™ Prairie + Pre-Emergent  
 Plateau™ Prairie  
 Red Oak Savanna w/Flowers Seed Mix

Savanna Cover Crop  
 Sedge Ghetto The Next Generation  
 Shaded Streambank Mix  
 Shoreline Wet Edge  
 Streambank Mix  
 Streambank Stabilization Mix  
 Tall Grass Mesic Prairie w/Flowers  
 Tall Mesic Prairie for Clay Soils  
 Tall Mesic Prairie Grasses  
 "Tough Native" Grass Detention Mix  
 "Tough Native" Mixed Height Detention Mix  
 Upland Cover Crop  
 Urban Sedge Meadow Mix  
 Urban Wetland/Floodplain  
 Vegetated Drainage Swale Seed Mix  
 Wet to Mesic Prairie w/Flowers  
 Wet to Mesic Savanna w/Flowers  
 Wet Savanna/Open Woodland Grasses  
 Wet to Mesic Prairie Grasses  
 Wetland Cover Crop



**Class 1 Lawn Mixture**

Kentucky Bluegrass	100#/Acre
Perennial Ryegrass	60#/Acre
Creeping Red Fescue	40#/Acre
	<b>200#/Acre</b>

**Class 1A Salt Tolerant Lawn Mixture**

Kentucky Bluegrass	60#/Acre
Perennial Ryegrass	20#/Acre
Audubon Red Fescue	20#/Acre
Rescue 911 Hard Fescue	20#/Acre
Fults Salt Grass	60#/Acre
	<b>180#/Acre</b>

**Class 1B Low Maintenance Lawn Mixture**

Fine Leaf Turf-Type Fescue	150#/Acre
Perennial Ryegrass	20#/Acre
Red Top	10#/Acre
Creeping Red Fescue	20#/Acre
	<b>200#/Acre</b>

**Class 2 Roadside Mixture**

Inferno or Tarheel II Tall Fescue	100#/Acre
Perennial Ryegrass	50#/Acre
Creeping Red Fescue	40#/Acre
5% Red Top	10#/Acre
	<b>200#/Acre</b>

**Class 2A Salt Tolerant Roadside Mixture**

Inferno or Tarheel II Tall Fescue	60#/Acre
Perennial Ryegrass	20#/Acre
Audubon Red Fescue	30#/Acre
Rescue 911 Hard Fescue	30#/Acre
Fults Salt Grass	60#/Acre
	<b>200#/Acre</b>

**Class 3 Northern Illinois Slope Mixture**

Canada Wild Rye (Elymus Canadensis)	5#/Acre
Perennial Ryegrass	20#/Acre
Alsike Clover	5#/Acre
Illinois Bundleflower (Desmanthus Illinoensis)	2#/Acre
Little Bluestem (Andropogon Scoparius)	12#/Acre
Side-Oats Grama (Bouteloua Curtipendula)	10#/Acre
Fult Salt Grass	30#/Acre
Oats, Spring	50#/Acre
Slender Wheat Grass	15#/Acre
Buffalo Grass (Cody or Bowie)	5#/Acre
	<b>170#/Acre</b>

**3A Southern Illinois Slope Mixture**

Perennial Ryegrass	20#/Acre
Canada Wild Rye (Elymus Canadensis)	20#/Acre
Switchgrass (Panicum Virgatum)	10#/Acre
Little Bluestem (Andropogon Scoparius)	12#/Acre
Side-Oats Gramma (Bouteloua Curtipendula)	10#/Acre
White Prairie Clover (Petalostemum Candidum)	5#/Acre
Black-Eyed Susan (Rudbeckia Hirta)	5#/Acre
Oats, Spring	50#/Acre
	<b>132#/Acre</b>

**Class 4 Native Grass Mixture**

Big Blue Stem (Andropogon Gerardi)	4#/Acre
Little Blue Stem (Andropogon Scoparius)	5#/Acre
Side-Oats Gramma (Bouteloua Curtipendula)	5#/Acre
Canada Wild Rye (Elymus Canadensis)	1#/Acre
Switchgrass (Panicum Virgatum)	1#/Acre
Indian Grass (Sorghastrum Nutans)	2#/Acre
Annual Ryegrass	25#/Acre
Oats, Spring	25#/Acre
Perennial Ryegrass	15#/Acre
	<b>83#/Acre</b>

**Class 4A Low Profile Native Mixture**

Little Blue Stem (Andropogon Scoparius)	5#/Acre
Side-Oats Gramma (Bouteloua Curtipendula)	5#/Acre
Canada Wild Rye (Elymus Canadensis)	1#/Acre
Prairie Dropseed (Sporobolus Heterolepsis)	.5#/Acre
Annual Ryegrass	25#/Acre
Oats, Spring	25#/Acre
Perennial Ryegrass	15#/Acre
	<b>76.5#/Acre</b>

**Class 4B Wetland Grass & Sedge Mixture**

44.64% Annual Ryegrass	25#/Acre
44.64% Spring Oats	25#/Acre
10.72% Wetland Grasses (below)	6#/Acre
	<b>56#/Acre</b>

Species	% By Weight
Blue Joint Grass	12%
Lake-Bank Sedge	6%
Awl-Fruited Sedge	6%
Tussock Sedge	6%
Fox Sedge	6%
Needle Spike Rush	3%
Blunt Spike Rush	3%
Fowl Manna Grass	14%
Common Rush	6%
Slender Rush	6%
Torrey's Rush	6%
Rice Cut Grass	10%
Hard-Stemmed Bulrush	3%
Dark Green Rush	3%
River Bulrush	3%
Softstem Bulrush	3%
Cord Grass	4%

## Class 5 Forbs w/Annual Mixture

91% Forbs Mixture (below)	10#/Acre
9% Annuals Mixture (below)	1#/Acre
	<b>11#/Acre</b>

Forb Mixture-Mixture not exceeding 5% by PLS weight of any one species of the following:

Lead Plant	Butterfly Weed
Smooth Aster	White Wild Indigo
Prairie Coreopsis	Rattlesnake Master
Ox-Eye	Rough Blazing Star
Prairie Bergamont	Louse Wart
Purple Prairie Clover	Prairie Cinquefoil
Fragrant Coneflower	Prairie Dock
Spiderwort	Thimble Weed
Sky Blue Aster	New England Aster
New Jersey Tea	Pale Purple Coneflower
Downy Sunflower	Alum Root
Prairie Blazing Star	Wild Quinine
White Prairie Clover	False Dragonhead
Yellow Coneflower	Compass Plant
Rigid Goldenrod	Culver's Root

Annuals Mixture-Mixture not exceeding 25% by weight of any one species, of the following:

Sand Coreopsis	Blanket Flower
Shasta Daisy	Long-Headed Coneflower
Black-Eyed Susan	

## 5A Large Flower Native Forb Mixture

100% Forbs Mixture (below)	5#/Acre
	<b>5#/Acre</b>

<b>Species</b>	<b>% By Weight</b>
New England Aster	5%
Pale Purple Coneflower	10%
Downy Sunflower	10%
Ox-Eye	10%
Prairie Blazing Star	10%
Yellow Coneflower	5%
Black-Eyed Susan	10%
Compass Plant	10%
Prairie Dock	20%
Rigid Goldenrod	10%

## Class 5B Wetland Forb Mixture

100% Forbs Mixture (below)	2#/Acre
	<b>2#/Acre</b>

<b>Species</b>	<b>% By Weight</b>
Sweet Flag	3%
Angelica	6%
Swamp Milkweed	2%
Stemmed Aster	10%
Beggarticks	7%
Spotted Joe-Pye Weed	7%
Boneset	7%
Autumn Sneeze Weed	2%
Blue Flag Iris	2%
Cardinal Flower	5%
Great Blue Lobelia	5%
Winged Loosestrife	2%
False Dragonhead	5%
Smartweed	10%
Water Smartweed	10%
Mountain Mint	5%
Cut Leaf Coneflower	5%
Riddel Goldenrod	2%
Giant Burweed	5%

## Class 6 Conservation Mixture

Little Bluestem ( <i>Andropogon Scoparius</i> )	5#/Acre
Canada Wild Rye ( <i>Elymus Canadensis</i> )	2#/Acre
Buffalo Grass (Cody or Bowie)	5#/Acre
Vernal Alfalfa	15#/Acre
Oats, Spring	48#/Acre
	<b>103#/Acre</b>

## Class 6A Salt Tolerant Conservation Mixture

Little Bluestem ( <i>Andropogon Scoparius</i> )	5#/Acre
Canada Wild Rye ( <i>Elymus Canadensis</i> )	2#/Acre
Buffalo Grass (Cody or Bowie)	5#/Acre
Vernal Alfalfa	15#/Acre
Oats, Spring	48#/Acre
Fults Salt Grass	20#/Acre
	<b>123#/Acre</b>

## Class 7 Temporary Erosion Control Mixture

Perennial Ryegrass	50#/Acre
Oats, Spring	64#/Acre
	<b>114#/Acre</b>

## **Class A1 Standard Mixture**

Alta Tall Fescue	75#/Acre
Kentucky Bluegrass	65#/Acre
Perennial Ryegrass	40#/Acre
Creeping Red Fescue	20#/Acre
<b>200#/Acre</b>	

## **Class A2 Salt Tolerant Mixture**

K-31 or Alta Tall Fescue	50#/Acre
Kentucky Bluegrass	40#/Acre
Fults Distans Alkaligrass	40#/Acre
Dawson Creeping Red Fescue	40#/Acre
Perennial Ryegrass	40#/Acre
Rescue 911 Hard Fescue	15#/Acre
Buffalograss	10#/Acre
<b>235#/Acre</b>	

## **Class A3 Native Slope Mixture**

K-31 or Alta Tall Fescue	60#/Acre
Spring Oats	50#/Acre
Perennial Ryegrass	40#/Acre
Kentucky Bluegrass	40#/Acre
Fults Distans Alkaligrass	30#/Acre
Dawson Creeping Red Fescue	25#/Acre
Side Oats Grama	15#/Acre
Little Blue Stem	10#/Acre
Birdsfoot Trefoil	5#/Acre
Alsike Clover	5#/Acre
Indiangrass	3#/Acre
<b>288#/Acre</b>	

## **Class A4 Native Grass Mixture**

K-31 or Alta Tall Fescue	60#/Acre
Spring Oats	50#/Acre
Annual Ryegrass	35#/Acre
Kentucky Bluegrass	35#/Acre
Perennial Ryegrass	30#/Acre
Dawson Creeping Red Fescue	20#/Acre
Little Blue Stem	10#/Acre
Side Oats Grama	5#/Acre
Indiangrass	3#/Acre
Switchgrass	1#/Acre
<b>249#/Acre</b>	

## **Class A5 Forb/Annual-Mixture**

Forbs Mixture (below)	14#/Acre
Annuals Mixture (below)	2#/Acre
<b>16#/Acre</b>	

Forb Mixture-Mixture not exceeding 5% by PLS weight of any one of the following species:  
(Continued in next column)

Lead Plant	Butterfly Weed
Smooth Aster	White Wild Indigo
Prairie Coreopsis	Rattlesnake Master
Ox-Eye	Rough Blazing Star
Prairie Bergamont	Dame's Rocket
Purple Prairie Clover	Prairie Cinquefoil
Fragrant Coneflower	Prairie Dock
Thimble Weed	Compass Plant
Sky Blue Aster	New England Aster
New Jersey Tea	Pale Purple Coneflower
Downy Sunflower	Yellow Coneflower
Prairie Blazing Star	Stiff Goldenrod
White Prairie Clover	

Annuals Mixture Mixture not exceeding 25% by weight of any one of the following species:

Sand Coreopsis	Blanket Flower
Shasta Daisy	Long-Headed Coneflower
Black-Eyed Susan	

## **Class A6 Special Use Slope Mixture**

Perennial Ryegrass	60#/Acre
Crown Vetch	40#/Acre
Birdsfoot Trefoil	30#/Acre
<b>130#/Acre</b>	

## **Class B1 Native Overseeding Mixture**

Perennial Ryegrass	25#/Acre
Spring Oats	25#/Acre
Forbs Mixture (below)	10#/Acre
Little Blue Stem	5#/Acre
Side Oats Grama	2#/Acre
Indiangrass	2#/Acre
Prairie Wild Rye	2#/Acre
Switchgrass	2#/Acre
Prairie Dropseed	1#/Acre
<b>74#/Acre</b>	

Mixture not exceeding 10% by PLS weight of any of the following species:

Sky Blue Aster	Smooth Aster
New England Aster	Cream Baptisia
Dame's Rocket	Lance-Leaved Coreopsis
Prairie Coreopsis	Shooting Stars
Pale Purple Coneflower	Rattlesnake Master
Prairie Betony	Prairie Quinine
Rough Blazing Star	Prairie Blazing Star
Lupine	Prairie Bergamont
Prairie Yellow Coneflower	Black-Eyed Susan
Cream Baptisia	Prairie Clover
Compass Plant	Stiff Goldenrod

## Class B2 Wildflower Overseeding Mixture

Perennial Ryegrass	20#/Acre
Buffalograss	5#/Acre
Side Oats Grama	3#/Acre
Blue Grama	1#/Acre
Annuals (below)	2#/Acre
Forbs (below)	14#/Acre
	<b>45#/Acre</b>

Forbs: Mixture not exceeding 10% by PLS weight of any one of the following species:

Smooth Aster	Rattlesnake Master
Rough Blazing Star	Dame's Rocket
Pale Purple Coneflower	Prairie Cinquefoil
Sky Blue Aster	Stiff Goldenrod
Prairie Yellow Coneflower	Black-Eyed Susan

Annuals:

Mixture-Mixture not exceeding 25% by weight of any one of the following species:

Lance-leaved Coreopsis	Indian Blanket
Corn Poppy	Upright Prairie Coneflower
Black Eyed Susan	Catchfly

## Class D1 Wetland Mixture

Annual Ryegrass	40#/Acre
Wetland Grasses (below)	6#/Acre
	<b>29#/Acre</b>

<u>Species</u>	<u>% by Weight</u>
Blue Joint Grass	12%
Lake Bank Sedge	6%
Awl-Fruited Sedge	6%
Tussock Sedge	6%
Fox Sedge	6%
Needle Spike Rush	3%
Blunt Spike Rush	3%
Fowl Manna Grass	14%
Common Rush	6%
Slender Rush	6%
Torrey's Rush	6%
Rice Cut Grass	10%
Hard-Stemmed Bulrush	3%
Dark Green Rush	3%
River Bulrush	3%
Prairie Cordgrass	4%

A = Annual    B = Biennial    Bl = Blue    Br = Brown    C = Cream    L = Lilac    M = Mixed  
 O = Orange    P = Perennial    Pi = Pink    Pu = Purple    Rd = Red    Ro = Rose    V = Violet  
 W = White    Y = Yellow    (Wildflower varieties are subject to availability and may be substituted)

## WILDFLOWERS:

### Instant Glamour Mixture

<u>Common Name</u>	<u>Type</u>	<u>Colors</u>
Bachelor's Button	A	Bl
African Daisy	A	W, Y, O
Alyssum Tall	A	M
Cosmos	A	Pi, W, Rd, Pu
Coneflower	P	Pi
Indian Blanket	A	Y, Rd
Baby's Breath	A	W
Dame's Rocket	P	V
California Poppy	P	Y
Corn Poppy Red	A	Rd
Black-Eyed Susan	P	Y, Br
Shasta Daisy	P	W
Catchfly	P	Pi, V
Spurred Snapdragon	A	M

Seeds Per Pound: Approximately 778,230  
 Recommended Seeding Rate: 10-15#/Acre

### Midwestern Mixture

<u>Common Name</u>	<u>Type</u>	<u>Colors</u>
Calliopsis	A	Bl
Indian Blanket	A	W, Y, O
Blazing Star	P	M
African Daisy	A	Pi, W, Ro
Bachelor's Button	A	Pi
Blue Flax	P	Y, Rd
Sundrops	P	W
Texas Bluebonnet	A	V
Corn Poppy Red	A	Rd
Annual Phlox	A	Rd
Prairie Coneflower	P	Y, Br
Clasping Coneflower	A	W
Plains Coreopsis	A	Pi, V
Black-Eyed Susan	P	Y, Br
Sweet Alyssum	A	W
Scarlet Flax	A	Rd
Spurred Snapdragon	A	M

Seeds Per Pound: Approximately 964,080  
 Recommended Seeding Rate: 10#/Acre

## Partial Shade Mixture

Common Name	Type	Colors
Garden Columbine	P	Y, Rd, V
Cornflower	A	Bl
Tick-Seed	P	Y
Chinese Forget-Me-Not	A	Bl
Rocket Larkspur	A	W, Bl, V
Foxglove	P	Pu, C
Dame's Rocket	P	V
Toadflax	A	Pu, Rd, Pi
Sweet Alyssum	P	W
Virginia Stock	A	L, W
Baby Blue Eyes	A	Bl
Shirley Poppy	A	Rd, Pi, W
Flanders Poppy	A	Rd
Black-Eyed Susan	P	Y, Br
Viola	P	Y, Pu

Seeds Per Pound: Approximately 493,640  
Recommended Seeding Rate: 20#/Acre

## Perennial Mixture

Common Name	Type	Colors
Yarrow	P	Bl
Wallflower	P	W, Y, O
Shasta Daisy	P	M
Tick-Seed	P	Pi, W, R
Purple Coneflower	P	Pi
California Poppy	P	Y, Rd
Blanket Flower	P	W
Dame's Rocket	P	V
Prairie Flax	P	Y
Evening Primrose	P	Rd
Sundrops	P	Y, Br
White Evening Primrose	P	W
Yellow Prairie Coneflower	P	Pi, V
Red Mexican Hat	P	Rd, Y
Black-Eyed Susan	P	Y, Br
Perennial Lupine	P	Bl
Swt. William Catchfly	P	Rd, W

Seeds Per Pound: Approximately 964,080  
Recommended Seeding Rate: 10#/Acre

## Low Growing Mixture (grows apr. 12" high)

Common Name	Type	Colors
Siberian Wallflower	P	Y
Alyssum car. of Snow	A	W
Virginia Stock	A	L, W
Five Spot	A	W, Pu
Baby Blue Eyes	A	Bl
Beach Evening Primrose	A	Y
Dwarf Evening Primrose	A	Y
California Bluebells	A	Bl
Dwf. Swt. William Catchfly	B	Pi
California Poppy	P	Y
Godetia	A	Pi, V
Coreopsis Dwarf	A	Y
African Daisy	A	W, Y, O
Birds Eyes	A	Br

Seeds Per Pound: Approximately 580,600  
Recommended Seeding Rate: 15#/Acre

## Annual Mixture (planted in Spring)

Common Name	Type	Colors
Calendula	A	O
Cornflower	A	B
Godetia	A	Pi, Ro
Cosmos Sensation Mix	A	M
Chinese Forget-Me-Not	A	Bl
Indian Blanket	A	Y, Rd
Baby's Breath	A	W
Spurred Snapdragon	A	M
Candytuft	A	Pi, V
Scarlet Flax	A	Rd
Virginia Stock	A	Pi, W, Y
Evening Primrose	A	Y
Annual Phlox	A	Rd
Shirley Poppy	A	Pi, Rd, W
Swt. William Catchfly	A	Pi
Sweet Alyssum	A	W
Wallflower	P	O

Seeds Per Pound: Approximately 434,210  
Recommended Seeding Rate: 20#/Acre

A = Annual    B = Biennial    Bl = Blue    Br = Brown    C = Cream    L = Lilac    M = Mixed  
O = Orange    P = Perennial    Pi = Pink    Pu = Purple    Rd = Red    Ro = Rose    V = Violet  
W = White    Y = Yellow

(Wildflower varieties are subject to availability and may be substituted)





Terra-Mulch® 100% Wood

Terra-Mulch® 100% Wood with Tackifier

Terra-Mulch® 70% Wood/ 30% Paper Blend

Terra-Mulch® 70% Wood/ 30% Paper Blend  
with Tackifier

Terra-Mulch® 100% Paper

- Recommended hydromulch coverage;  
1,250 - 1,800 pounds per acre
- Bags wrapped in water-resistant poly  
bags
- For your convenience, Terra-Mulch®  
Hydraulic Mulch is packaged in 50#  
bags



PennMulch® is manufactured mulch free from weeds and substances toxic to plant growth. PennMulch is comprised of newsprint and other paper, which is specially prepared, impregnated with liquid fertilizer and super absorbent polymer, dyed green, pelleted and dried. Packaged in 50# bags.

Application Rate: 60 - 75 pounds per 1,000 ft<sup>2</sup>  
(50 lb. bag covers 800 ft<sup>2</sup> - approximately  
55 bags per acre)

Why Use PennMulch Instead of Straw?

- One step mulch and fertilizer application  
reduces labor
- 100% weed-free
- Will not blow away - No tackifier
- Convenient to store and transport
- Biodegradable and professional look

## PAM-12™

PAM-12™ is a combination of proven soil-stabilizing polymers known as linear anionic water-soluble polyacrylamides (WSPAM) that have been impregnated into a recycled office paper mulch. These soil-stabilizing polymers are released from the paper at varying rates when moisture is applied. The paper serves as the carrier, delivery system, and tracer for the polymers. In addition to the polymers, PAM-12 contains calcium and a physical tackifier in order to ensure performance in a variety of soils and conditions.

### Science & Technology

ENCAP has partnered with Dr. Aicardo Roa from the University of Wisconsin-Madison. Dr. Roa is one of the better known polyacrylamide researchers in the world. Dr. Roa has combined three WSPAMs into one proprietary polymer called TRIPAM. TRIPAM is the basis for ENCAP's patented Advanced Soil Technology (AST). AST is the basis for PAM-12 Erosion Control Granules.

### Mechanism of Action

Listed below are the functions of each soil stabilizing component of PAM-12 as it interacts with the soil:

1. Quick Release AST™: The paper mulch is spray coated with liquid TRIPAM and bulk blended with fine powder TRIPAM. Quick Release AST instantly binds to the soil with the first moisture event.
2. BioAST™: The paper mulch is impregnated with a starch called BioAST. The starch "sticks" to the soil in a physical process. This effectively reduces erosion in large particle and low-charge soils.
3. Controlled/Slow Release AST™: The paper mulch is impregnated with TRIPAM. The polymers are slowly released into the soil upon application effectively controlling erosion over time.
4. Calcium: The calcium component of PAM-12 ensures its effectiveness in low charge soils by creating a charged bridge to any soil particle.

### Application Rate

#### Slope PAM-12 Rates

None	600 lbs per acre
>6:1	800 lbs per acre
>4:1	1,000 lbs per acre
>3:1	2,000 lbs per acre
>2:1	3,000 lbs per acre



### Advantages

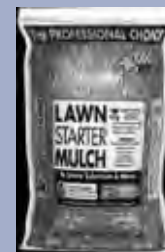
- Visibility: The green granules in PAM-12 serve as a tracer for the application of our polymers.
- Longevity: The slow release of polymers in PAM-12 increases the time span of effective erosion control.
- Versatility: PAM-12 can be applied wet through hydroseeders or dry through spreaders or blowers.
- Cost control: PAM-12's ease of use ensures a cost effective application

## PAM-12 Proven Benefits

- Excellent Erosion Control: The erosion control capabilities of PAM-12 have been documented in USFS post fire rehabilitation trials, DOT applications and TRI/Environmental Tests.
- Increased water infiltration: USFS post fire rehabilitation trials have proven that PAM-12 applications increase the penetration of water into the soil.
- Aids in germination and establishment of seed: The germination and vegetation establishment benefits of PAM-12 have been documented in USFS post fire rehabilitation trials, DOT applications and TRI/Germination Tests.

## LAWN STARTER MULCH™

Lawn Starter Mulch™ is an efficient and economical product for seed and turf establishment.



### Coverage

2,500 sq.ft. per 50lb bag or 1,000 sq. ft. per 20lb bag.

### Applications

Lawn Starter Mulch™ is commonly used to establish new turf, renovate existing turf, add to divot mix, place under sod, supplement and/or replace hydro seed bails, follow slit seeding, and as an application after aeration. Used in the golf, landscape, and sports turf markets.

### Composition

The asymmetric shaped granules are comprised of premium paper-based mulch granules, starter fertilizer, erosion fighting AST™ (Advanced Soil Technology), cross-linked water holding polymer, and a Seed Watering Guide™.

### Benefits

- Flows easily through most spreaders and hydroseeders
- Contains Advanced Soil Technology™ (AST™) water soluble polymers to reduce soil loss, reduce chemical and fertilizer runoff, and increases water penetration. They reduce irrigation time and frequency. They are soluble in water and can penetrate into the soil decreasing surface soil compaction and crusting. They bond with nutrients and pesticides to retain soil fertility and improve pesticide performance. They have been used for over 30 years in agriculture
- Contains cross-linked polymers that hold up to 400 times weight in water. They are designed for moisture retention at the soil surface where the seed needs it the most. They absorb water quickly (resulting in rapid hydration) and reduce moisture evaporation from the soil surface
- Takes the guesswork out -of watering with "Water Me Technology". Stop watering when polymer crystals appear and green darkens, and begin watering again when polymer crystals are no longer apparent
- Starter fertilizer (.1-2-1) aids in initial establishment
- Applied independent of seed or can be blended w/seed and applied all at once
- Contains no weed seed
- 50 lb bag covers up to 2,500 sq.ft. – 40 bags/pallet

## LANDSCAPE PRODUCTS

### Fabric Grade Strength

2 oz. Commercial (spunbound)
3 oz. Professional (spunbound)
3.1 oz. Professional(nonwoven)
3.8 oz. Professional Plus (nonwoven)
4.1 oz. Weed Restrictor (woven needle punch)
4.7 oz. Weed Restrictor Plus (woven needle punch)

### Sizes Available

3' x 250' up to 15' x 250'
3' x 250' up to 15' x 250'
3' x 250' up to 15' x 250'
3' x 250' up to 15' x 250'
3' x 250' up to 12' x 250'
3' x 250' up to 12' x 250'

## SILT FENCING

36" Standard Silt Fence	100' rolls	13 stakes per roll
42" IDOT Grade Silt Fence	50' rolls	11 stakes per roll
42" IDOT Grade Silt Fence	100' rolls	21 stakes per roll

## EROSION CONTROL BLANKETS/PRODUCTS

***Profile Futerra Blankets - green-dyed or natural color, single net and biodegradable  
82" x 135' (102.5 sq yds or 922 sq ft) packed 16 per pallet***

***Profile F4 Netless Blankets - green-dyed, netless and biodegradable  
78" x 90' (65 sq yds or 585 sq ft) packed 16 per pallet***

***Excelsior Blankets - green-dyed, single net and biodegradable***

Blanket Size:	4' x 180'	packed 20 per bundle each roll = 80 square yards or 720 square feet
	8' x 90'	packed 30 per bundle each roll = 80 square yards or 720 square feet

***Xcel or RS-1 Straw Blankets, single net and biodegradable***

Blanket Size:	7.5' x 120'	packed 18 per bundle each roll = 100 square yards or 900 square feet
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***North American Green S75 & DS75 Straw Blankets, single net and biodegradable***

Blanket Size:	6.7' x 108'	packed 18 per bundle each roll = 80 square yards or 720 square feet
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Blanket Staples	4" x 1" x 4" staples	1,000 per box Recommended Rate: 1 staple per 1 square yard
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## HYDRAULIC MULCH ADDITIVE PRODUCTS

Terra-Mulch Tacking Agent III Tackifier	4/8# bags/case
Rate of 32# per acre	
Finn HydroStik (Premium Tackifier)	8/5# bags/case
Rate of 40# per acre	
Finn StikPlus (Bonded Matrix Additive)	4/7.5# bags/case
Rate of 30# per acre	
Finn HydroGel (Moisture Retention Agent)	8/5# bags/case
Rate of 10# per acre	
Finn HPN (10-44-6 Soluble Fertilizer)	30# buckets
Rate of 7.5# per acre	





## SOILMASTER™ INFIELD CONDITIONER

- Blends easily into existing infield mix
- Permits faster return to play after rain ... eliminating puddles, muddy conditions and slick spots
- Prevents excessive compaction of infield soil and promotes superior drainage qualities
- Retains moisture to keep playing surface virtually dust free, firm and resilient ... without dry-out or cracking
- Highly durable ... designed to keep infields in top condition season after season

**Base Paths** - Apply 3 - 4 bags of Soilmaster to each base path and scratch in with a rake or nail drag

**Home Plate Area** - Use 2 - 3 bags to spread lightly in batters boxes and around home plate

**Pitchers Mound** - Spread 1 - 2 bags over the mound to take care of surface moisture

### Infield Conditioning - Top 1"

- If infield surface is hard and compacted, moisten the area prior to incorporating Soilmaster
- Spread Soilmaster over entire field, adding additional amounts to problem areas
- With the use of a nail drag, rake or tine harrow, work the Soilmaster into the top one inch of soil and then smooth out the surface with a drag mat.
- Topdress with twenty bags of Soilmaster and drag again

## Recommended Quantities for Skinned Areas

	Renovation - Top 3"	Conditioning - Top 1"
Regulation Field	12 tons (480 bags)	6 tons (240 bags)
Softball Fields	10 tons (400 bags)	5 tons (200 bags)
Little League	5 tons (200 bags)	2 tons (80 bags)

\* Application rates of Soilmaster can vary depending on current field conditions. A general guideline to follow when renovating the top 3" of an infield is to apply 1.5 tons of Soilmaster per 1,000 square feet of skinned area.

Soilmaster is packaged in 50 pound bags and shipped on pallets - 40 bags per pallet (1 ton). Also available in bulk shipments of 22-25 tons.

## RAPID DRY™ DRYING AGENT

- Works quickly to soak up puddles and make fields playable
- Works efficiently, producing desired results with minimum effort
- Works better because its granular structure encourages rapid absorption
- Works longer because the particles are heat treated and will remain rigid

**Rapid Dry**, a field drying agent, consists of fine granular particles that have been baked (calcined) to insure durability and to increase absorption capabilities.

The fine-sized granular structure of **Rapid Dry** speeds the wicking and absorption of excess water while improving soil consistency and helping to reduce compaction.

Puddles disappear, safer footing is restored and games play on schedule.

Long-lasting, Rapid Dry easily mixes into the soil, stays there, and continues working to absorb excess water that may accumulate.

**Rapid Dry**, the game-saving quick fix for wet and muddy ball diamonds, football and soccer fields, is easy and economical to use.

General Application: Spread a covering of **Rapid Dry** over a soggy surface using any spreader or by hand. Once the water is absorbed, work into the soil with a rake or use a drag on large areas. Continue to apply until desired surface condition is achieved.

\* Rapid Dry is packaged in 50 pound bags and shipped on pallets - 40 bags per pallet (1 ton)



## **Pro's Choice Soil Master™ Pro's Choice Soil Master™ Select Pro's Choice Rapid Dry™ Pro's Choice Pro Mound™ Pure Line Marking Chalk**

In the past, there have been some misconceptions about sports field conditioners. The following definition of terms and clarification of product characteristics have been developed based on significant research to help you make informed decisions about which products will work best on your baseball and sports turf fields.

### ***What are the most important characteristics to look for in a soil conditioning product?***

- 1) **Know Your Mineral!** What is the base material of the product? Different minerals perform differently. Does the mineral's inherent characteristics enhance field conditions?
- 2) **Absorption.** Have the mineral's characteristics been optimized for maximum absorption?
- 3) **Color.** Will the product help you meet the standards for a good looking field? For example, on a baseball field, a deeper red color provides visual contrast for the white ball.
- 4) **Liquid Holding Capacity.** (LHC), which measures the internal pore volume of a mineral. What sort of capacity to absorb and retain moisture does the product have?
- 5) **Stability.** Will the product resist breakdown and deliver long-lasting performance?
- 6) **Absence of Dust.** Will the product apply cleanly and not blow away with the first breeze or blow into an infielder's face?

### ***What are Pro's Choice soil conditioners made from?***

Soilmaster™, Soilmaster™ Select, Rapid Dry™ and Soilmaster™ Plus are granular products made from unique deposits of montmorillonite clay found in northern Mississippi and southern Illinois. Pro's choice soil conditioners are the highest quality products in their class, a result of extensive research, development and quality manufacturing process.

### ***How are these products optimized to enhance their sports field conditioner qualities?***

Pro's Choice products are thermally optimized (1,200-1500°) to remove all moisture from the montmorillonite clay. This transforms the clay into a hard, ceramic-like product. When thermally optimized, Pro's Choice montmorillonite absorbs and exchanges moisture in the soil. Also, because it has been hardened, it is physically stable and will not break down in the field.

### ***Are there other important differences?***

Yes. Our unmatched de-dusting process and deep, red color set Pro's Choice products apart. If the dust has not been removed from the product, you lose part of what you pay for at the first sign of wind. You also run the risk of product blowing back in the face of your players. The deep red color is inherent to Pro's Choice's unique mineral deposits. It is enhanced even more by the proprietary manufacturing process.

## **Basic:**

6-24-24 Starter  
10-24-28 with 30% Duration™  
12-12-12 Balanced  
22-2-22 with 70% Duration™; 1% Fe  
22-3-11 with 50% Duration™; 3% Fe  
25-5-15 with 50% SCU; 3% Fe  
15-15-15 with 100% Duration™, SOP Ornamental/Turf  
14-14-14 with 100% POLYON® Ornamental/Turf  
3-4-3 Plant Health Care Organic Ornamental/Landscape  
10-2-8 Nature Safe® Organic  
1-Ap 36-2-6 90% Duration 2% S

## **Herbicide/Insecticide Added:**

15-0-3 with 0.29% Cavalcade & 30% Duration™  
18-5-9 with 70% UMAXX®; Trimec® Weed & Feed; 2% Fe  
15-15-15 with 100% Duration™ and .20% Cavalcade, SOP; Combo Ornamental/Preemergent  
1-Ap Cavalcade 0.20% plus 36-2-6 90% Duration™ 2% S  
Imidacloprid 0.20% plus 20-0-5 50% Duration™ 50% N-Fate 11.4% S

## **Fertilizer Release Mechanisms:**



POLYON® controlled release fertilizers utilize Pursell Technologies, Inc. (PTI) advanced polyurethane coating technology, which is specifically designed to meet the nutritional requirements of turfgrass and horticulture growers. POLYON coated nutrients feature an extremely durable ultra-thin polyurethane coating that provides nutrition at precisely the right time when plants need Major, Minor and Secondary elements, without the risks of premature or excessive release common to other fertilizers. The ultra-thin POLYON coating is chemically bonded to nutrient granules, creating an extremely durable and reliable granule for 100 percent controlled release. As a result, turfgrass and horticulture growers get higher quality plants without worrying about premature or excessive nutrient loss due to coating failures.

Duration CR is available in five release rates to best meet the needs for your climate and turf season. Duration CR has been extensively tested in field trials for both turf and agricultural applications. Duration CR consistently stands out amongst the competition. Duration CR is tested for quality and release rate before distribution.



- Duration CR: Nitrogen when you need it Turf managers work hard to maintain the quality and color of their turf. Duration CR nitrogen uses the latest scientific advancement in controlled release fertilizer technology, to provide turf professionals with exceptional performance
- Duration CR is predictable nutrition When dealing with controlled release fertilizer, predictability is a necessity. With Duration CR, you know exactly what your turf is getting, and when
- You get: • Greener, healthier turf, uniform, consistent release of nutrients, reliable product longevity, controlled, uniform turf color and growth, and minimal growth flushes. Duration CR takes the worry out of maintaining healthy turf. This is due to the patented polymer coating that releases nitrogen in a predictable pattern. The same pattern that regulates turf demand for nitrogen. Unlike other controlled release fertilizers, the release rate of nutrient from Duration CR is predictable

Duration CR's innovative polymer membrane surrounds the fertilizer granule for both controlled and predictable release. Once applied, this unique membrane selectively allows soil moisture to diffuse through the coating, gradually dissolving the urea fertilizer. At this time, the urea nitrogen liquefies, yet it remains encapsulated by the polymer membrane. The urea nitrogen solution then passes through the membrane in a predictable manner, which matches the nutrient demand of the turf.

Duration CR has been subjected to extensive testing to evaluate the performance of the coating. As well, in order to consistently release nitrogen, a coating has to be able to withstand normal handling.

**Excel Calcium Chloride** is the strongest ice melter on the market today. It is a 93-97% pure calcium chloride pellet formulated for efficiency. In other words, it melts more, reducing the application rate and saving you money.

Features:

- \* Most efficient de-icer on the market
- \* Begins melting immediately upon impact - generates melting heat fast
- \* Melts effectively, even at -25 degrees Fahrenheit
- \* Safe on streets, driveways, sidewalks, steps, and the environment when used correctly
- \* No powdery residue - odorless and colorless

Packed: 50/50# bags per pallet

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**POWER THAW** is a powerful ice melter specifically designed for high performance melting in the Industrial and Commercial markets. POWER THAW utilizes a special 5-ingredient recipe to unlock unmatched melting speed and performance. Calcium and Magnesium Chloride, two high performance ice melters, combine with AMC to assure the fastest and most effective thaw available - even at temperatures as low as -20 degrees F. POWER THAW crystals are also dyed blue for an easy, efficient application process.

Features:

- \* Melts Snow & Ice Effectively to -20 Degrees F
- \* Industrial Ice Melt Proven to Perform Fast & at Low Temps
- \* Blue Colored Crystals to Indicate Spread Pattern
- \* Specifically Blended for High Performance Melting
- \* Safe to You & the Outdoors
- \* Safe on Concrete & Treated Wood\*



Blend Contains: Calcium, Magnesium, Potassium, Sodium, and AMC

Packed: 49/50# bags per pallet

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**THAWMASTER** is an economical and very productive ice melter coated with AMC - to assure a faster, more reliable thaw. Calcium and Magnesium Chloride, two high powered melters, combine to quickly generate heat and draw moisture from the air to ensure a speedy thaw even at temperatures as low as -5 degrees F. THAW MASTER is safe to you and the outdoors and is safe on concrete and treated wood when used as directed.

Features:

- \* Coated with AMC, a High Powered De-icing Compound that provides Faster Melting Action
- \* Green Colored Crystals to Indicate Spread Pattern
- \* Melts to -5 degrees F
- \* Special Coating Adheres Crystals to Ice and Snow
- \* Commercial Blend for Superior Performance
- \* Economical and very Productive



Blend Contains: Calcium, Magnesium, Sodium, and AMC

Packed: 49/50# bags per pallet

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Bagged and bulk rock salt are also available. Please call for pricing and availability.

## PLANT GROWTH REGULATORS

Product Name	Description	Package Size	Application Rate
<b>Plant Growth Regulators</b>			
Embark® T&O	A turf and ornamental growth regulator for residential, institutional, commercial and home lawns, golf courses and others.	Case: 4 x 1 gal.	5 - 20 pints per acre.
Primo Maxx™	A liquid formulation of trinexapac-ethyl developed for use as a growth regulator that slows down the rate of growth of turfgrass. In university trials, under controlled conditions, the use of this product has reduced the frequency of mowing by up to 50%.	Case: 2 x 1 gal. LinkPak: 10 gal.	0.15 to 1 oz. per 1,000 ft².
Proxy®	Liquid formulation of ethephon that when applied at recommended rates to fairways, roughs and commercial turfgrass. Proxy slows the growth of turf thus reducing the required frequency of mowing and the volume of clippings collected. Effective in poa annua seed head suppression.	Case: 2 x 2.5 gal.	5 fl. oz. per 1,000 ft².
Trimmit® 2SC	23.3% Paclobutrazol. A plant growth regulator for turfgrass that slows growth for up to 2 months after application.	Case: 4 x 1 gal.	6.4 - 48 oz. per acre.

## FUNGICIDES

Product Name	Description	Package Size	Application Rate
<b>Fungicide-based Products</b>			
Banner Maxx®	Systemic fungicide for the control of many turfgrass diseases including dollar spot, brown patch, anthracnose, summer patch and many others. Excellent long-term control when tank is mixed with a contact fungicide. Also labeled for numerous ornamental applications. Banner Maxx microemulsion concentrate formulation has little to no odor and contains no xylene.	Case: 2 x 1 gal. LinkPak: 10 gal.	1-4 oz. per 1,000 ft².
Banol®	Systemic turf fungicide for use of turfgrass subject to Pythium Blight. It may be used after germination to control Pythium damping-off in turf, or on established turf to prevent or control Pythium Blight. Also recommended for prevention of root rot and damping-off caused by Pythium and Phytophthora at all stages of ornamental propagation.	Case: 2 x 1 gal.	1.33 - 4 oz. per 1,000 ft².
Bayleton® 50 WSP	Broad spectrum systemic fungicide for control of certain diseases on turfgrass and ornamentals, including dollar spot, brown patch, anthracnose, summer patch and many others.	Case: 4 x 4 x 5.5 oz. pkts. Mini-Drum: 88 x 5.5 oz. pkts.	0.5 - 2.0 oz. per 1,000 ft². (4 - 16 packets per acre).
Bayleton® 1G	Granular form of Bayleton.	Bag: 30 lbs.	1.5 lbs. per 1,000 ft².
Chipco® 26GT	Improved formulation of Chipco 26019. Broad spectrum fungicide for the prevention and control of certain diseases of turfgrass, including dollar spot, brown patch, red thread, helminthosporium and snow mold.	Case: 2 x 2.5 gal.	3 - 8 oz. per 1,000 ft².
Clearys 3336 WSB, 3336 F	A thiophanate-methyl, systemic fungicide to prevent and control diseases in fine turf, annual and perennial flowers, ground covers, deciduous and evergreen trees and shrubs.	Case: 3336 WSB: 6 x 2 lbs. Case: 3336 F: 2 x 2.5 gal.	3336 WSB 2 to 8 ozs. per 1,000 ft². 3336 WSB F: 2 to 8 ozs. per 1,000 ft².
Compass	This broad spectrum foliar fungicide has high levels of activity against many fungal pathogens. Labeled for use of turf and ornamentals.	Case: 4 x 1 lb.	Turf: 0.1 - .25 oz per 1,000ft². Ornamentals: 1 - 4 oz. per 100 Gal. Rate: 1 - 2 oz. per 1,000 ft².
Curalan® EG	Effective on all turfgrasses for control of dollar spot, brown patch, leaf spot, and other diseases. Also labeled for control of diseases on ornamental plants.	Case: 4 x 4 x 11 oz.	
Daconil Ultrex®	The "advanced spray-dry formulation" that stays in suspension for days. A broad spectrum highly effective contact fungicide for control of brown patch, Helminthosporium, dollar spot, anthracnose and other turfgrass diseases. Rates and spray intervals vary with target pathogen.	Case: 4 x 5 lbs. Case: 4 x 10 lbs.	4 - 10 Lbs. per acre for preventative. 10 - 20 Lbs. per acre for curative.
Daconil® 5G	Granular Daconil.	Bag: 25 lbs.	4 Lbs. per 1,000 ft².
Daconil Weather Stik®	The same advanced "Weather Stik" surfactant in Daconil Ultrex is available in a 6-pound formulation. Broad spectrum highly effective contact fungicide for control of brown patch, Helminthosporium, dollar spot, anthracnose and other turfgrass diseases. Rates and spray intervals vary with target pathogen. Also labeled for ornamentals.	Case: 2 x 2.5 gal.	2.125 - 6.25 fl. oz. per 1,000 ft² preventative. 4.125 - 7.66 fl. oz. per 1,000 ft² curative.
Daconil Zn®	Flowable formulation of Daconil that includes 0.58 Lbs. of Zinc per gallon. Daconil Zn gives improved algae control while providing the same broad spectrum control of turf diseases as Daconil Ultrex and Daconil Weather Stik.	Case: 2 x 2.5 gal.	3 - 6 fl. oz. per 1,000 ft² preventative. 6 - 11 fl. oz. per 1,000 ft² curative.
Eagle WSP	Systemic fungicide for the control of diseases including dollar spot, leaf spot, brown patch, red thread, summer patch, anthracnose and necrotic ring spot. Intervals and rates vary with target pathogen.	Case: 16 x 3 oz. Keg: 160 x 3 oz.	6.4 - 12.8 fl. oz. per 1,000 ft². 0.6 - 1.2 fl. oz. per 1,000 ft².
Fore FloXL	A complex formulation of an EBDC fungicide containing Manganese and Zinc that is a broad spectrum protectant recommended for turf and ornamentals. Optimum disease control is achieved when Fore FloXL is applied in a regularly scheduled preventative spray program.	Case: 2 x 2.5 gal.	6.4 - 12.8 fl. oz. per 1,000 ft².
Fore Rainshield	Broad spectrum contact fungicide for control of Helminthosporium, rust, algae, brown patch and other turfgrass diseases. Controls wide range of ornamental diseases.	Case: 20 x 2 lbs.	4 - 8 oz. per 1,000 ft².
Fore Rainshield WSP	Broad spectrum contact fungicide for control of Helminthosporium, rust, algae, brown patch and other turfgrass diseases. Controls wide range of ornamental diseases.	Case: 8 x 6 lbs.	4 - 8 oz. per 1,000 ft².
Heritage	A sprayable form of Azoxystrobin, part of a group known as strobolarins. It is a broad spectrum, preventative fungicide with systematic and curative properties recommended for the control of many important turf diseases.	Case: 6 x 1 lbs. Pack: 4 x 6 lbs. (Fall only)	0.2 - 0.7 oz. per 1,000 ft².
PolarKote™ 4F	A sprayable form of PCNB used as a preventative fungicide for the control of certain soil borne diseases of turf and ornamentals. Diseases controlled include brown patch, melting out/leaf spot, gray and pink snow molds.	Case: 2 x 2.5 gal. Drum: 30 gal.	4.5 to 24 fl. oz. per 1,000 ft².
PolarKote™ 10G	A granular formulation of PCNB used as a preventative fungicide for the control of soil borne diseases such as brown patch, melting out/leaf spot, gray and pink snow molds.	Bag: 50 lbs.	2 -10 Lbs. per 1,000 ft².
Protect T/O WSB	Broad spectrum contact fungicide for control of Helminthosporium, rust, algae, brown patch and other turfgrass diseases. Controls wide range of ornamental diseases.	Case: 8 x 3 lbs.	4 - 8 oz. per 1,000 ft².



## FUNGICIDES (continued)

Product Name	Description	Package Size	Application Rate
<b>Fungicide-based Products</b>			
Signature™	Formerly Aliette Systemic fungicide to control Pythium, Phytophthora, and summer stress complex. For use on turf, or as a foliar or drench application on ornamentals. For preventative control of Pythium, spray turfgrass at 14-day intervals at 4 oz. rate, 21-day intervals at 8 oz. rate. Rates vary with target pathogen and type of application required.	Case: 4 x 5 lbs. Limited Case: 2 x 11 lbs. Case: 4 x 5.5 lbs.	Spray at 4 oz. rate in 14-day intervals preventative. Spray at 8 oz. rate in 21-day intervals curative.
Spectro 90 WDG	A combination of Chlorothalonil and Thiophanate methyl giving both systemic and contact fungicide control of fine turf diseases and diseases of annual and perennial flowers, ground covers, plus deciduous and evergreen trees and shrubs. This unique combination has the advantage of the Weather Stik formulation that "sticks and stays between sprays."	Case: 4 x 5 lbs.	3 - 12 oz. per 1,000 ft <sup>2</sup> preventative. 6 - 12 oz. per 1,000 ft <sup>2</sup> curative.
Spotrete F	Contact fungicide for control of dollar spot, brown patch and snow mold.	2 x 2.5 gal.	6 - 8 oz. per 1,000 ft <sup>2</sup> .
Subdue Maxx®	Systemic fungicide for use of turf and ornamentals for the control of Pythium Blight, yellow turf, downy mildew and damping-off. Ornamental rates vary with target pathogen. Subdue Maxx microemulsion concentrate formulation has little to no odor and contains no odor and contains no xylene.	Case: 2 x 1 gal. Linkpak: 10 gal.	0.5 - 1.0 oz. per 1,000 ft <sup>2</sup>
Subdue® 2G	Granular Subdue. Irrigate with 0.25 to 0.5 inches of water after application. Excellent for newly seeded areas to prevent damping-off.	Bag: 25 lbs.	12.5 - 25 oz. per 1,000 ft <sup>2</sup>
Teremec® SP	Contact fungicide for control of Pythium Blight and pink and gray snow mold.	Case: 12 x 3 lbs.	3 - 9 oz. per 1,000 ft <sup>2</sup> .

## HERBICIDES

Product Name	Description	Package Size	Application Rate
<b>Herbicide-based Products</b>			
Acclaim® Extra	Post-emergent crabgrass and other annual grass control. Rates vary with target species stage of development. DO NOT APPLY TO BENTGRASS PUTTING GREENS. Refer to label for tank mix compatibility.	Case: 4 x 1 gal. Case: 2 x 2.5 gal.	0.08 - 0.9 oz. per 1,000 ft <sup>2</sup> . For Crabgrass: 0.08 oz. per 1,000 ft <sup>2</sup> (3.5 oz per acre).
Banvel®	Postemergent liquid herbicide that controls many annual, biennial and perennial broadleaf weeds commonly found in turf. Banvel will also give growth suppression of many other perennial broadleaf weeds, woody brush and vine species.	Case: 2 x 2.5 gal.	0.5 to 4.5 pints per acre.
Barricade® WDG	65% WDG Pre-emergent herbicide for crabgrass. Single application will provide season-long control.	Case: 6 x 5 lbs.	0.75 - 1.15 lbs. per acre.
Bensumec™ 4LF	A pre-emergent herbicide which provides effective control of annual grass, including crabgrass and Poa annua as well as broadleaf weeds in greens, tees, fairways and dichondra and grass lawns. The spontaneous emulsification quality of this formulation assures complete mixing and eliminates spray-tank layering or clogging, even with limited agitation.	Case: 4 x 1 gal. Case: 2 x 2.5 gal.	5.6 - 18 fl. oz. per 1,000 ft <sup>2</sup> .
Confront	Non phenoxy herbicide for the control of broadleaf weeds in turf. Excellent on clover.	Case: 4 x 1 gal. Drum: 30 gal.	1 - 2 pints per acre.
Dimension®	Selective herbicide for the pre-emergence and early post-emergence control of crabgrass, goosegrass, foxtail, Poa annua and other weeds.	Case: 2 x 2.5 gal. Drum: 30 gal.	1.5 - 2.0 qts. per acre.
Dimension® Ultra WSP	Same as Dimension. For use on established lawns, commercial sod farms, turf and landscape ornamentals.	Case: 8 x 5 oz.	1.5 - 4 pouches per acre.
Finale®	Fast acting non-selective herbicide. Transmodal action works in as little as 1 to 4 days. Finale kills weeds fast and provides long-lasting control. Spray undesirable vegetation foliage on a spray-to-wet basis, prior to runoff. Ensure uniform and complete coverage.	Case: 2 x 2.5 gal.	3 - 4 oz. per gallon of water.
Gallery 75DF	Selective pre-emergent herbicide for control of certain broadleaf weeds and suppression of annual grasses in established turf, landscape ornamentals and nursery stock. Apply in late summer to early fall or in early spring prior to germination of target weeds.	Can: 4 x 1 lbs.	0.66 - 1.33 lbs. per acre. (0.25 - 0.5 oz. per 1,000 ft <sup>2</sup> ).
Lontrel T&O	For selective postemergence control of Broadleaf weeds in turf, sod farms, and certain ornamentals.	Quart	0.33 - 1 pint per acre.
Manage®	Post-emergent nutsedge control.	Case: 10 x 1.3 oz. btl.	1.3 oz. bottle per 1.0 - 1.5 acres.
Mecomec 4	A selective herbicide for the control of surface creeping or prostrate broadleaf weeds. Safe on bentgrass.	Case: 2 x 2.5 gal.	0.75 - 1.5 fl. oz. per 1,000 ft <sup>2</sup> .
Millennium Ultra	Unequaled broadleaf weed control. State of the art chemistry includes the amine formulation of 2, 4-D, clopyralid and dicamba. Total effective control of 194 broadleaf weeds. Especially effective on clover (clopyralid is one of the active ingredients in Confront).	Case: 2 x 2.5 gal. Drum: 30 gal. Drum: 55 gal.	2 - 3 pints per acre.
Prograss®	Selective herbicide with pre- and post-emergent modes of action for the control and/or suppression of specific annual grass and broadleaf weeds. Primary use for control of Poa annua on perennial ryegrass, Kentucky bluegrass, fairway height creeping bentgrass. DO NOT APPLY TO BENTGRASS PUTTING GREENS.	Case: 2 x 2.5	Rates: Poa annua in bentgrass - 2 qts. per acre (1.5 oz. per 1,000 ft <sup>2</sup> ) two to three times in the fall on a 21 to 28 day spray interval followed by one application the following spring. Check label for details.
Roundup PRO® DRY-Pak	Convenient dry formulation of Roundup..	Case: 30 x 1.5 oz. pkts.	One packet per one gallon provides a 2% solution.
Roundup PRO®	Non-selective herbicide. Roundup PRO is a unique formulation fully loaded with an improved surfactant system. Trials show rainfast within one to two hours. Can reseed shortly after application.	Case: 2 x 2.5 gal. Drum: 30 gal.	3 - 5 qts. per acre.
Snapshot 2.5 TG	Pre-emergent herbicide combination of Treflan and Gallery for the control of certain broadleaf weeds and annual grasses and container and landscape ornamentals, nursery stock, Christmas trees and ground covers.	Bag: 50 lbs.	100 - 200 lbs. per acre.
Surflan A.S.	Season-long pre-emergent control of annual grasses and small seeded broadleaf weeds in nursery and landscape ornamentals. Can be applied over the top of most ornamentals.	Case: 2 x 2.5 gal.	2 - 4 qts. per acre or 1.5 - 3.0 oz. per 1,000 ft <sup>2</sup> .
Touchdown® Pro	New non-selective herbicide.	Case: 2 x 2.5 gal.	2 - 3 ozs. per 1,000 ft <sup>2</sup> .
Treflan 5G	A 5% granular formulation of trifluralin that is a pre-emergent herbicide designed for dry application by professional grounds keepers and Controls a wide range of annual grasses and broadleaf weeds in nursery stock, ornamental trees, ornamental woody shrubs, ornamental ground-covers, established flowers and roses. This product is not to be used on turf.	Case: 2 x 2.5 gal. Bag: 40 lbs. landscapers.	1.81 lbs. per 1,000 ft <sup>2</sup> .
Trimec® 992	For broadleaf weed control in residential, institutional and commercial lawns, parks and recreation areas and condominiums and townhouse grounds; also labeled for use on golf course fairways and sod farms and other sites.	Drum: 30 gal. Drum: 55 gal.	1 gal. per 2.5 acres.
Trimec® Bentgrass	Postemergent broadleaf control herbicide that provides superior control in bentgrass and other 2, 4-D "sensitive" grasses. Its effectiveness in cool temperatures (even below 50 degrees F) allows for early spring and fall use. One of the best broadleaf control options for bentgrass greens, tees, fairways and aprons.	Case: 2 x 2.5 gal.	1.1 - 1.5 fl. oz. per 1,000 ft <sup>2</sup> .

## HERBICIDES (continued)

Product Name	Description	Package Size	Application Rate
<b>Herbicide-based Products</b>			
Trimec® Classic	Broadleaf control in turf, golf courses, residential lawns, cemeteries, public parks and other sites.	Case: 2 x 2.5 gal.	3 - 4 pints per acre.
Trimec® Plus	For control of nutsedge, grassy and broadleaf weed in established bluegrass, tall fescue, tall fescue, fine fescues, ryegrass, zoysiagrass and bermudagrass turf. Labeled for sod farm use.	Case: 2 x 2.5 gal.	1 gal. per acre.
Super Trimec®	Controls dandelion, chickweed, knotweed, plantain and other broadleaf weeds.	Case: 2 x 2.5 gal.	2 - 4 pints per acre.

## INSECTICIDES

Product Name	Description	Package Size	Application Rate
<b>Insecticide Products</b>			
DeltaGard® T/O	Broad spectrum low dose, high performance synthetic pyrethroid, deltamethrin for insect control on golf courses, sod farms, commercial and residential turf and landscape and nursery ornamental plants.	Case: 12 x 1 qt.	Turf: 0.4 to 0.9 fl. oz. per 1,000 ft <sup>2</sup> . Ornamentals: 4 - 8 fl. oz. per 100 gal. of water.
DeltaGard® Granular GC	Granular formulation of synthetic pyrethroid, deltamethrin for insect control on golf courses, sod farms, landscape ornamental plantings and perimeters around commercial, industrial, recreational and residential areas.	Bag: 40 lbs.	2 - 3 lbs. per 1,000 ft <sup>2</sup> .
Dylox® 6.2 G	Fast acting turf insecticide for the control of white grubs, mole crickets, sod webworms and cutworms. An excellent "knock-down" grub insecticide.	Bag: 30 lbs.	2 lbs. per 1,000 ft <sup>2</sup> for surface feeding insects. 3 lbs. per 1,000 ft <sup>2</sup> for root feeding insects.
Dylox® 80 SP	Fast acting turf and ornamental insecticide. Labeled for the control of white grubs, sod webworms, cutworms and other insects affecting turf and ornamentals. An excellent "knock-down" grub insecticide.	Case: 10 x 5 lbs.	Turf: 2.5 - 3.75 oz. per 1,000 ft <sup>2</sup> for surface feeding insects; 3.75 oz. per 1,000 ft <sup>2</sup> for white grubs. Ornamentals: 20 - 30 oz. per 100 gal. of water.
Mach II	Season-long grub control with one early application. Also controls cutworms sod webworms and armyworms.	Case: 2 x 2.5 gal.	3 qts. per acre for grubs. 2 qts. per acre for surface feeders.
Mach II Granular	Season-long grub control with one early application. Also controls cutworms sod webworms and armyworms.	Bag: 33.33 lbs.	3 bags per acre for grubs. 2 bags per acre for surface feeders.
Merit® 0.5 G	Granular turf insecticide. Labeled for white grubs including larvae of black turfgrass ateniuss, Japanese beetle, Oriental beetle, Asiatic garden beetle, May and June beetles, Northern and Southern masked chafer and European chafer. Single application in early June provides season-long control.	Bag: 30 lbs.	60 lbs. per acre (2 bags per acre).
Merit® 75 WSP	Turf and ornamental insecticide. Labeled for white grubs including larvae of black turfgrass ateniuss, Japanese beetle, Oriental beetle, Asiatic garden beetle, May and June beetle, Northern and Southern masked chafer and European chafer. Single application in early June provides season-long control. Refer to label for respective spreader settings.	Case: 4 x 4 x 1.6 oz. pkts. Mini Drum: 88 x 1.6 oz. pkts.	One 1.6 oz. water soluble packet per 0.25 acres (4 packets per acre)
Scimitar	A synthetic pyrethroid which controls pests on turf and ornamentals.	Case: 8 x 1 qt.	Turf: 5 - 10 oz. per acre in 100 gal. of water. Ornamentals: 1 - 5 oz. per acre in 100 gal. of water.
Scimitar GC	An encapsulated formulation of a synthetic pyrethroid used for the control of turf and ornamental insect pests on golf courses. Provides excellent control of ants, armyworms, cutworms and sod webworms.	Case: 8 x 1 qt.	Turf: 5 - 20 oz. Ornamentals: 1.5 - 5 fl. oz. per 100 gal.
Sevin SL	Broad spectrum insecticide for use on turf and ornamentals.	Case: 5 x 1 gal.	For Ants, Armyworms and Cutworms: Use 1.5 - 3 oz. per 1,000 ft <sup>2</sup> . For Cinch Bugs and Sod Worms: Use 4.4 - 6 oz. per 1,000 ft <sup>2</sup> . Ornamentals: 1 - 2 qts. per 100 gal. of water.
Tempo® SC Ultra	Broad spectrum synthetic pyrethroid insecticide for control of insect pests of trees, landscape ornamentals and residential and commercial lawns and crawling, flying and wood-infesting insects for indoor and outdoor surfaces.	Bottle: 6 x 240 ml.	Turf: 5.9 - 8.9 fl. oz. Ornamentals: 1.5 fl. oz. per 100 gal. of water. Crack and Crevice: Use 8 - 16 ml. per 1,000 ft <sup>2</sup> .
Turcam 2.5 G	A granular formulation of Turcam that controls a broad range of turf and ornamental pests.	Bag: 40 lbs.	0.9 - 2.8 lbs. per 1,000 ft <sup>2</sup> .
Turcam WP	Used by professional applicators to control broad range of turf and ornamental insect pests including chinch bugs, white grubs, gypsy moths, and webworms.	Case: 6 x 2 lb. jars	Turf: 0.5 - 1.5 oz. per 1,000 ft <sup>2</sup> . Ornamentals: 3 - 42 oz. per 100 gal. of water.

## PHC Tree Saver

This product is specially designed to reduce transplant stress while improving soil hydration and fertility. It's applied to the root zone of trees and shrubs at the time of planting. The city of New York plants 10,000 trees per year and went from a 12% mortality rate to 1.5% after using Tree Saver. Tree Saver contains five species of mychorrizal fungi, six species of bacteria and Terra-Sorb hydrogel.

**Packaging Size:** Packed in 3 ounce packs (30 packs per case)

**Application Rate:** one ounce per gallon container or three ounces per one inch caliper

## PHC Flower Saver Plus

PHC Flower Saver Plus 3-4-3 contains four select species of VAM fungi in long-lasting spore form that colonize roots to improve absorption of water and nutrients. It also contains organic fertilizers with beneficial rhizosphere bacteria and rich organic soil nutrients. The result is a robust soil treatment for promoting healthy, long-lasting flowers. It also benefits annual bedding plants, bulbs, tubers, perennials, herbs, groundcovers, vegetables, fruits and ornamental grasses.

**Packaging Size:** Packed in 30 pound pails

**Application Rate:** Rototill in 30 pounds per 500 square feet or one ounce per one gallon plant

## Healthy Start 12-8-8 Micro Tablets

Combining advanced chemistry with biology, no other planting tablet delivers such an advanced approach to slow-release, long-term and sustainable fertility. We start with a standard mix of synthetic fertilizers to provide the basic N-P-K. Six hard-working bacteria species are then added, which together, perform phosphorus stabilization and nitrogen fixation. Third, we add iron in a slow-release sucrate form that is not susceptible to leaching. Finally, we include humic acids, which are naturally present in forest soils, but are lacking in managed settings. Humic acids help to improve root uptake of minerals even in unfavorable pH environments. The nutrients in these tablets take up to 2 years to completely release.

**Packaging Size:** 25 Pound Box – 540 x 21 gram tablets

**Application Rate:** one 21 gram tablet per gallon plant

## PHC Terra-Sorb

Terra-Sorb is a super-absorbent, potassium-based co-polymer gel that significantly increases the water-holding capacity of soil. It absorbs up to 200 times its weight in water and slowly releases it to nearby plant roots. Terra-Sorb will repeatedly absorb and release water for several years until it biodegrades.

**Packaging Size:** 55 Pound Bag

**Application Rate:** two to three ounces per one inch caliper tree

## CONVERSION FACTORS

To Convert From	To	Multiply By
Cubic Feet	Gallons	7.48
Cubic Feet	Liters	28.3
Gallons	Milliliters	3,785
Grams	Pounds	.0022
Grams/Liter	Parts/Million	1,000
Grams/Liter	Pounds/Gallon	.00834
Liters	Cubic Feet	.0353
Milligrams/Liter	Parts/Million	1.0
Milliliters	Gallons	.0026
Ounces	Grams	28.35
Parts/Million	Grams/Liter	.001
Parts/Million	Pounds/Gallons	8.34
Pounds	Grams	453.59
Pounds/Gallon	Grams/Liter	111.83

## AREA & VOLUME CONVERSIONS

### Square Measure

1 Square Foot	= 144 Square Inches	
1 Square Yard	= 9 Square Feet	
1 Square Rod	= 272.25 Square Feet	= 30.25 Square Yards
1 Acre	= 43,560 Square Feet	= 4,840 Square Yards
1 Square Mile	= 640 Acres	

### Weight Measure

1 Pound	= 16 Ounces
1 Hundredweight	= 100 Pounds
1 Ton	= 2,000 Pounds

### Liquid Capacity Measure

1 Tablespoon	= 3 Teaspoons	
1 Fluid Ounce	= 2 Teaspoons	
1 Cup	= 8 Fluid Ounces	
1 Pint	= 2 Cups	= 16 Fluid Ounces
1 Quart	= 2 Pints	= 32 Fluid Ounces
1 Gallon	= 4 Quarts	= 8 Pints = 128 Fluid Ounces

### Cubic Measure

1 Cubic Foot	= 1,728 Cubic Inches
1 Cubic Yard	= 27 Cubic Feet
1 Cubic Foot of Water	= 62.5 Pounds



**NATIONAL  
SEED**

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