

# Welcome to the Prince Dealer Training Program

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- Max Lawn 4-Bag Program Fertilizer Training Seminar
- Nature's Select Lawn Seeds
- Soil pH adjustments
- Basic plant care knowledge

Professional Results  
Require  
Professional Products

EC GROW

Prince®

MAXLAWN  
Premium Fertilizer

# Grass Seed



Section 2

# Selecting The Right Seed For Your Lawn

- Grasses are divided into two groups
  - Cool Season Grasses – do not do well in warm climates
    - Bluegrasses
    - Ryegrasses
    - Tall & Fine Fescues
  - Warm Season Grasses – can not survive in cool season areas
    - Bermuda, Zoysia
    - St. Augustine
    - Buffalograss
    - Carpetgrass
    - Bahia, Centipede



# Cool Season Characteristics

- Cool Season – Zone 1
  - Prefer temperatures that are 60-70°F, (15-25°C)
  - Have excellent cold survival
  - Have fair water use efficiency
  - Are reproduced by seed
  - Have low heat tolerance
  - Have excellent frost tolerance



# Warm Season Characteristics

- Warm Season – Zone 2
  - Prefer temperatures that are 80-95°F, (25-35°C)
  - Have generally poor cold survival
  - Have excellent heat tolerance
  - Have poor frost tolerance
  - Are reproduced by sod or sprigs – occasionally by seed



# Establishing & Seeding A New Lawn - Lawn Seed Selection

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- Several factors must be considered in selecting the proper lawn mixture
  - Climate
  - See Variety in Mix
  - Soil Conditions
  - Degree of sun or shade
- High quality blends should contain 3 or more of the following species.



# Lawn Seed Selection

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## ■ **Kentucky Bluegrass**

- Widely adapted variety for most soil conditions
- Uniform, dense turf
- Used in Professional sod-farming
- Beautiful dark color
- Excellent wearability

## ■ **Perennial Ryegrass**

- Fine-leaved perennial are gaining popularity
- Especially well adapted to the Midwest regions
- Similar to bluegrass in texture and wearability
- Rich green color

Quick germination and rapid establishment



# Lawn Seed Selection

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## ■ **Fine Fescues**

- Superior shade tolerance
- Require less water and fertilizer
- Excellent choice for low-maintenance areas

## ■ **Turf-type Tall Fescues**

- New elite turf-type tall fescues have improved color
- Well suited for high-use areas
- Finer leaves and slower growth habit
- Tolerance to low moisture conditions



# Cool Season Turf grasses

	<i>Creeping Bentgrass</i>	<i>Kentucky Bluegrass</i>	<i>Perennial Ryegrass</i>	<i>Fine Fescue</i>	<i>Tall Fescue</i>
Horizontal Growth	Strong stolons	Strong rhizomes	Clump type	Clump type or Short rhizomes	Clump type
Leaf Texture	Fine	Medium-fine to medium	Fine to medium	Very fine	Coarse to medium
Soil Type	Sandy, moist, fertile best	Wide range; well-drained; moist best	Wide range; moist, fertile best	Infertile, well-drained	Wide range
Germination	Medium	Slow to medium	Fast	Medium-fast	Medium-fast
Traffic Tolerance	Fair	Good	Excellent	Poor	Good
Cold Tolerance	Excellent	Excellent	Fair	Excellent	Fair
Heat Tolerance	Fair	Fair	Fair	Poor	Good
Drought Tolerance	Poor	Good	Good	Very good	Very good
Shade Tolerance	Fair	Poor-Excellent	Fair	Excellent	Good
Fertilizer Requirement	High	Medium to High	Medium-High	Low	Low-Medium
Mowing Height	0.125-0.5	1.5-3.0	1-3.0	1.5-3.0	1.5-4
Disease Potential	High	Medium	Medium	Medium	Low



# Selecting a Premium Grass Seed Blend

## Example of a Typical Seed Label



### Blue Mound®

99.9% Weed Free

Net Weight 50 lb

Item #002745

Lot #L1A02

	Purity	Germ	Origin
Creeping Red Fescue*	19.60%	90%	CAN
NuBlue Kentucky Bluegrass	14.70%	85%	OR
Bluechip Kentucky Bluegrass	14.70%	96%	ID
Accent Perennial Ryegrass	14.70%	94%	OR
Monterey II Perennial Ryegrass	14.62%	93%	OR
Award Kentucky Bluegrass	9.80%	85%	WA
Rugby II Kentucky Bluegrass	9.68%	85%	OR

\* Variety Not Stated

.03 Other Crop

2.17 Inert

.00 Weed Seed

None Noxious Weed

Permit No WI:20000080

Prince Corporation

Marshfield, WI 54449

Date Tested 1/2007



# Understanding Seed Labels

Consumers need to look at the label, and also understand what they are buying.

**Purity:** Purity indicates the percentage of pure seed of each component in the seed mixture. Not all the pure seed is live seed. The purity for **NuBlue Kentucky Bluegrass** is 14.70%. (starter at 15%)

**Germination:** Germination represents the percentage of pure seed that can grow. The following are guidelines for establishing reasonable germinations for various cool season grasses.

<b>Turf Type</b>	<b>Minimum %</b>	<b>High Quality</b>
<b>Kentucky Bluegrass</b>	<b>80%</b>	<b>85%</b>
<b>Fine Fescues</b>	<b>85%</b>	<b>90%</b>
<b>Perennial Ryegrass</b>	<b>85%</b>	<b>90%</b>
<b>Tall Fescues</b>	<b>85%</b>	<b>90%</b>

Other factors that must be considered in evaluating a good seed mixture or blend are the %crop, %weed, and %inert.

# Understanding Seed Labels

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**Crop:** The percentage by weight, of seeds in a package that are grown as a cash crop. This includes many of the course hay or pasture grasses. This percentage for high quality bluegrass should be as close as possible to 0.00%. As a general guideline, anything over 0.5% should be avoided. The law states that if the percentage of crop seed is greater than 5% by weight, then listing by its specific name on the tag is required.

**Weeds:** The percent, by weight, of weed seed in a package of seed. A weed is any seed that is not included in the pure seed or crop part of the tag. As a general guideline, anything over 0.3% should be avoided.

**Noxious Weeds:** This defines the number per pound or the ounces of weed seeds considered undesirable. Each state varies in its assessment of noxious weeds. Look for seed that meets your state's noxious weed tolerances.

**Inert:** The percentage by weight, of material in the container that will not grow is indicated by the inert listing. Seed with more than 8% inert should be avoided. As a general guideline, higher quality seed should be less than 4% inert.

**Date tested:** Check the date on the seed label. The date should be within the last nine months.

# Soil pH

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
Acidity Neutral Alkaline

A pH range of 6.5 to 7 is good for raising turf grasses because overall nutrient availability is at its maximum in this range. Any time the pH strays too far from this range, nutrients become less available and more difficult for the plant to utilize.

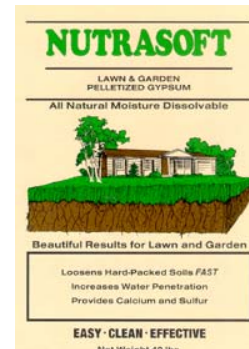
Improve soil pH

- Add high-calcium lime to acidic soils
- Add sulfur to alkaline soils.

It is wise to have a soil test run to determine if the pH needs to be raised, lowered, or left as is.



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# Helpful Hints For Fertilizing

## Increasing Soil pH

HOW TO INCREASE SOIL PH						
Amount of Ground Limestone Required per 1,000 sq. ft.						
Present pH	SAND		LOAM		CLAY	
	to pH 6.0	to pH 6.5	to pH 6.0	to pH 6.5	to pH 6.0	to pH 6.5
4.8	60	85	100	140	140	200
4.9	55	80	95	130	125	185
5.0	50	75	85	125	115	175
5.1	45	70	80	115	100	160
5.2	40	65	70	110	90	150
5.3	35	60	65	100	75	135
5.4	30	55	55	95	65	125
5.5	25	50	50	85	55	110
5.6	20	45	40	80	45	100
5.7	15	40	30	70	35	90
5.8	10	35	20	65	25	80
5.9	5	30	10	55	15	70
6.0		25		50		60
6.1		20		40		50
6.2		15		35		40
6.3		10		25		30
6.4		5		15		20

If hydrated lime is preferred, use three-fourths the above amounts.



# Helpful Hints For Fertilizing

## Decreasing Soil pH

HOW TO DECREASE SOIL PH			
TO CHANGE SOIL REACTION		SULPHUR	ALUM. SULPHATE
From pH	To pH	Pounds Per 1,000 sq. ft.	
8.0	6.5	20	40
	6.0	30	60
	5.5	40	80
	5.0	50	100
7.5	6.5	12.5	25
	6.0	25	50
	5.5	35	70
	5.0	45	90
7.0	6.0	12.5	25
	5.5		50
	5.0		70
6.5	5.5	17.5	35
	5.0	30	60
6.0	5.0	20	40
5.5	5.0	10	20

Apply finely powdered sulphur or aluminum sulphate at approximately the above rates on a loam soil. For silt loams use about one-third more than the above. For sandy loams use about one-half the above amounts.

