Proprietary Turfgrass Variety Guide









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One of the most important factors in selecting turfgrass seed is deciding which species (or mix of species) best fits your climate, site use, and intended maintenance level. This is important whether you are deciding on the initial selection for new construction on athletic fields, home lawns, golf courses or commercial sites; or for interseeding or renovating your existing turf to add newer improved varieties to the turfgrass population.

Turfgrass breeders make improvements in varieties every year, so do some research and try to find the newest varieties available. Research is made a little easier by utilizing the National Turfgrass Evaluation Program (NTEP). This program establishes tests at University sites across the US and Canada and publishes unbiased rankings on *www.ntep.org*. Whichever species you choose, always try to choose the best varieties available at the time with superior genetics that have improved disease and insect resistance, drought tolerance, and that will fit your long-term management plans.

Tall Fescues

Tall fescue is a bunch type grass that persists in the warmer areas of the cool season range of adaptation. It has a deep root system, which helps it be more heat and drought tolerant. Plant breeders have made great improvements in this species over the last decade. The newer varieties are as dark green and almost as fine textured as the improved Kentucky bluegrass varieties. A mowing height of 1.5 –3 inches is recommended.



- Very dark geen genetic color
- Excellent Brown Patch resistance
- Excellent mowing quality
- Medium-fine leaf texture
- Pythium resistance



- Included in NTEP Water use trial
- Deep Rooted
- Very dark green genetic color
- Excellent drought and heat tolerance
- Available fall 2018



- Highly ranked for overall turf quality
- Very fast establishment
- High drought and heat tolerance
- Excellent mowing quality
- A-List Approved!



- Top ranked for Brown Patch resistance
- Medium fine leaf texture
- Highly ranked for Typhula blight resistance
- Dark green genetic color
- A-List Approved!



- Excellent overall turf quality
- Top rated for drought tolerance
- Highly rated brown patch resistance
- Dark green genetic color
- A-List Approved!



- Top ranked for overall turf quality
- Excellent overall in southwest region
- Superior under traffic stress
- Dark green genetic color



- Top rated for overall turf quality
- Excellent drought, traffic and heat tolerance
- High brown patch resistance
- A-List Approved!



- Excellent turf quality under lower inputs
- Dark green genetic color
- Fast establishment
- Excellent winter color



- Top tanked for spring green-up and shade tolerance
- Highly ranked for Brown Patch resistance
- Excellent performance under lower inputs
- A-List Approved!



- Exhibits Rhizomotous traits
- #1 overall for sod strength
- Excellent for brown patch resistance



- Top ranked under lower inputs
- Long term overall turf quality top performer
- Excellent brown patch resistance

Perennial Ryegrass

Perennial ryegrass has a non-spreading, bunch type growth habit. It germinates and establishes quickly, has a dark green color, medium fine texture, and good mowing characteristics. Perennial ryegrass may be seeded alone or in mixtures with other species. Be sure when selecting perennial ryegrass varieties that endophyte enhancement is on your list of considerations. Endophytes aid against insects and disease and ensure longevity of your ivestment.



- Top rated for Gray Leaf Spot resistance
- Highly ranked under medium maintenance
- Excellent traffic tolerance
- Fine leaf texture



- Excellent drought and heat tolerance
- Broad disease resistance
- Dark green genetic color



- Top ranked Gray Leaf Spot resistance
- Excellent performance with lower inputs
- Superior overall turfgrass quality
- Excellent summer performance



- Best new germplasm available
- Dark green genetic color
- Excellent Gray Leaf Spot resistance
- Available fall 2018



- Top ranked under medium maintenance
- Top rated for Gray Leaf Spot Resistance
- Excellent Velocity injury rating
- Dark green genetic color



- Excellent drought and heat tolerance
- Quick establishment
- High endophyte level
- Good cold hardiness



- All new drought and heat tolerant germplasm
- Excellent establishment
- Top performer under lower inputs
- A-List Approved!



- Rapid recover from drought
- Excellent Gray Leaf Spot resistance
- Both cold and heat tolerance
- Dark green genetic color

Creeping and Velvet Bentgrass

The latest generation of Bentgrasses are here! With improved turf quality, disease resistance and versatility, these varieties are an excellent choice for new construction or an interseeding program for your golf course.



- Top ranked for Dollar Spot resistance
- Excellent overall turf quality
- Top ranked for summer density
- Superior at lower mowing heights



- Very good brown patch
 resistance
- Excellent seedling vigor, fast establishment
- Upright, aggressive growth habit
- Very resistant to Poa annua invasion



- Very fine leaf texture
- Excellent summer density ratings
- Top ranked for overall winter color
- Very good spring green-up



- Top ranked for greens, tees, and fairways
- Lower growth habit and fine leaf texture
- Excellent overall disease resistance
- Great performance with lower inputs

Fine Fescue

Creeping red fescue is the most widely used of the three main fine leafed fescues. It has slow spreading rhizomes. Chewings fescue and Hard fescue have a bunch –type growth habit. All have a fine leaf texture. They are particularly well adapted to dry, shady conditions as well as low maintenance situations. The fine fescues are primarily used in mixes with other species like Kentucky bluegrass and perennial ryegrass.



New!

- Very good drought tolerance
- Outstanding summer performance
- Good leaf spot resistance
- Good shade tolerance
- Available fall 2018
- A-List Approved!



- Excellent turf quality
- Wear and shade tolerance
- Good resistance to Leaf Spot
- Dark green color blends with other species
- Available fall 2018
- A-List Approved!



- Rhizomatous spreading habit
- Improved color and wear rolerance
- Excellent leaf spot resistence
- Top rated Stong Creeper at 2014 Rutgers trial
- Available fall 2018
- A-List Approved!



- Top ranked for Dollar Spot resistance
- Excellent disease resistance
- Good cold tolerance
- Excellent wear and traffic tolerance



- Top ranked for spring green-up
- Very fine leaf texture
- Excellent disease resistance
- Excellent spring and summer density

Kentucky Bluegrass

Kentucky Bluegrass is a widely adapted species that is used for many situations. It exhibits dark green color and medium fine texture. Kentucky bluegrass is able to spread and recover because it grows by underground primary lateral stems called rhizomes. These rhizomes grow out from the main plant and form a new plant, allowing it to form a dense cover. Kentucky bluegrass is a good choice for athletic fields, home lawns, and golf courses. For high quality turf, Kentucky bluegrass should receive medium to high maintenance.



- Fast germination and establishment
- Excellent tillering
- High density and wear tolerance
- Improved summer performance
- Good spring green-up



- Heat and drought tolerant Mid-Atlantic type
- Highly ranked at all maintenance levels
- Top ranked under traffic stress
- Excellent winter color and spring green-up



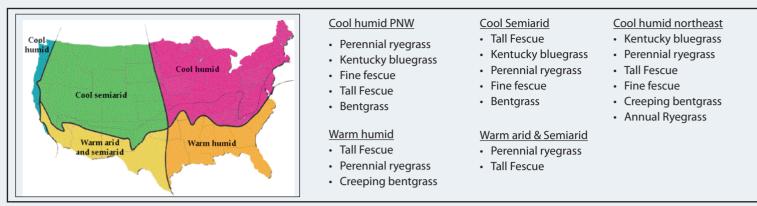
- Large seeded Shamrock type
- Fast establishment
- Improved disease resistance
- Very good winter color and spring green-up



- Elite compact America type
- High statistical ranking in lower maintenance
- Very dark green color
- Quick emergence and establishment

• A-List Approved!

Adaptation of Cool Season Species by Region



Turf Grass Characteristics

Species	Growth Habit	Establishment Rate	Mowing Height	Shade Tolerance	Drought Tolerance	Cold Tolerance	Traffic Tolerance
Perennial Ryegrass	bunch type	very fast	1.5-2.5″	good	good	good	excellent
Annual Ryegrass	bunch type	very fast	2.0+"	fair to good	fair	good	very good
Tall Fescue	bunch type,Slight Rhizomes	medium	1.5-3.0″	very good	very good	good	very good
Kentucky Bluegrass	spread by Rhizomes	slow	1.5-2.5″	fair to good	good	excellent	good
Fine Fescues	bunch type or Spread by tillers	medium	1.0-2.5″	very good	good	very good	poor to fair
Bentgrass	spread by stolons, rhizomes	medium	0.125-1.0″	fair	fair to poor	very good	good

<u>A</u>lliance for <u>L</u>ow <u>I</u>nput <u>S</u>ustainable <u>T</u>urf

A-List is a non-profit industry initiative with a mission to foster development of turfgrass varieties that perform under reduced inputs and levels of management, leading to a more sustainable environment. Lebanon Turf is a founding member of A- List. A-LIST has established a voluntary evaluation program including metrics like water conservation, reduced fertility, traffic, heat, and drought stress tolerances, all with no fungicide or insecticide applications. Results in NTEP trials are also considered. Products that

meet the acceptance criteria can utilize the A-LIST Approved symbol in their marketing. Trials are under way to evaluate Kentucky bluegrass, Tall fescue, perennial ryegrass, and Fine fescue varieties.

These LebanonTurf Turfgrass varieties have been approved by A-List. They are found in our A-list approved blends and mixes which require a minimum of 65% A-List varieties to carry the A-List approved tag.

Using A-List approved varieties assures you of a more sustainable turfgrass lawn, sports field, or golf course for the future!







Pennyuich Seed Accelerator

PennMulch Seed Accelerator is a pelleted seed establishment mulch comprised of recycled paper, starter fertilizer, and features Moisture Cell Technology[®] - a patented super absorbent polymer. PennMulch is designed to reduce weed breakthrough during seed establishment, improve germination by eliminating dry spots, and improve root development, critical to the turf establishment process.



The original is all you need

PennMulch Seed Accelerator is the only seed establishment product containing patented Moisture Cell Technology. Comprised of super-absorbent polymers, Moisture Cell Technology can absorb up to 400 percent its weight in water, which causes the pellets to expand and absorb water. As the seed bed dries, the microscopic polymer crystals release water back into the soil, providing the new seedlings with the moisture they need to grow healthy and strong. Though there are



look-alike products on the market, university testing shows that none can match the results of PennMulch Seed Accelerator.

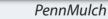


Eliminates weed problems

Straw and hay often contain perennial grass weeds like Orchard grass and Timothy that cannot be selectively controlled once new turf is established. PennMulch Seed Accelerator contains no weed seeds. Don't waste your time, labor, and premium seed only to have it ruined by weeds.



Straw



Improved efficiency

Unlike straw or hay, PennMulch never needs to be raked and removed and will not blow into the neighbor's yard or swimming pool.

Cost effective

It's estimated that up to 30% of the cost of seeding jobs is associated with returning time and again to fix areas that don't fill-in properly. PennMulch Seed Accelerator can't guarantee that your customers will water, but it is proven to speed up seedling establishment. PennMulch greatly reduces the chance of seedling failures.