



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



SOD STANDARDS AND MEASURES:



Sod Harvesting: Standard rolls are cut 2-feet wide by 5-feet long.



Sod Pallet Sizes: Standard rolls are stacked 700 square feet per pallet (70 standard rolls per pallet).

The sod rolls per pallet can vary based on the sod harvester used and the sod farm's decision on individual cut lengths.

Leading sod harvester manufacturers: Trebro; Brouwer-Kesmac; Magnum

Some sod growers cut individual slabs with the sod stacked turf face up. The sod pallets will still hold 500-700 square feet of sod.



Harvesting Big Rolls: Sod Cut Measurements:

Standard big rolls are cut 4-feet wide by 100-feet long (400 sq ft.), but can be up to 135-feet long.

Sod is rolled with the soil facing out to protect the grass from damage.

Other standard sod roll stacks are 4-feet by 62.5-feet rolls equaling 250 sq. ft.

Big rolls are wrapped around a long tube with varying sq. ft. increments, which equal one standard big roll.



Weight: Standard sod pallet weight ranges from 2,500 to 4,000 pounds, depending on moisture content.

Standard Black Beauty Grass Seed pallets have a weight range from 1,000 to 2,000 pounds.



Sod Soil Thickness: ¼ of inch of soil plus top growth.



Sod Netting: Tamanet or Conwed brand nettings may be used by some sod growers to hold sod together for faster harvesting.



Height: Sod mowed uniformly to a height of approximately 2 to 2.5 inches.



Contamination: Sod is free of weeds, insects, and disease when harvested.



Sod Maturity: Grown to full maturity with a minimum one-year maturity cycle.



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



GENERAL INFORMATION & VARIETAL COMPOSITION:

Product Brand Name: Black Beauty™ Turf-Type Tall Fescue Seed & Sod

Supplier: Jonathan Green Inc.

Species: *Black Beauty* and *Black Beauty Ultra* Grass Seed Mixtures are used to plant Black Beauty Sod. The grass seed brand will always be sold as either Black Beauty or Black Beauty Ultra.

The *Black Beauty* grass seed mixture will contain three of these proprietary *Black Beauty* Tall Fescue varieties: Dakota, Dorado, Golconda, Montana, Taos, Tara, Tonto, or Toltec. They usually make up 80%, 85%, or 90% of the total grass seed mixture.

In addition, Deepblue, Corsair, Krypton, Madison or Pivot proprietary Kentucky Bluegrass varieties will comprise either 10%, 15%, or up to 20% of the total grass seed mixture.

Frontier or Singular proprietary Perennial Ryegrasses may be added to the Black Beauty mixture. It will make up to 10% of the seed mixture to stabilize the soil and provide faster cover. These ryegrasses look very similar to the Black Beauty Tall Fescues in terms of dark-green color and will not canopy them by growing more rapidly. Frontier and Singular Perennial Ryegrasses are superior performers in compacted soils that receive heavy traffic. They will not be noticeable in the sod and, as stated, will augment the growing process.

Seed Purity: Greater than 99% pure "sod quality" seed with 0.00% weed seed.

Seed Origin: The states of Oregon and Washington.



DESCRIPTION & CHARACTERISTICS

Black Beauty Original and Black Beauty Ultra Supreme Grass Seed Blends

- Our most drought-tolerant blends for sun and shade areas
- Waxy-coating on the leaves preserves moisture when it's hot
- Roots that can grow up to 4-feet deep for superior drought tolerance
- Displays a uniform ("non-clumpy") growth habit
- Naturally withstands many insects and diseases

Color: Natural dark-green color which remains consistent throughout the year if properly watered and fertilized.

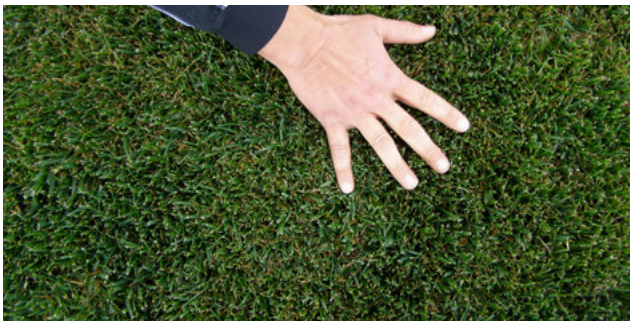
Texture: Uniform leaf texture that blends into a lawn when over seeded into it.

Density: Vertical, uniform growth habit and high density stand, which occurs within approximately six months of seeding.

Growth Rate: Growth starts early in the spring. Grows best during the spring, early summer, and fall months. If irrigated, will grow well in full summer heat.

Root Depth: Up to 48 inches. Maximum root system development occurs after one to two years from planting. Deep roots will reach available moisture and nutrients far below the ground surface.

Incredibly dark-green, visibly uniform, and tightly dense, there is nothing that matches the look of Black Beauty lawns.



Black Beauty was featured on "This Old House" (PBS) as an ecologically-friendly lawn that uses "half the amount of nitrogen" than traditional Kentucky Bluegrass sods.



"Once you've seen a Black Beauty lawn, you'll never forget it."



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

for Sod Growers and
Landscape Architects

A product of



ADAPTABILITY



Shade Adaption: Grows well in sun or shade. *Black Beauty* has excellent shade tolerance, especially in areas that receive at least four hours of filtered sunlight daily.



Wear Resistance: Turf grows very thick and dense, which gives it tremendous wear tolerance. Bluegrass rhizomes, found in certain mixtures, spread aggressively and help self-repair injured, worn, or damaged turf spots.



Temperature Tolerance: Thrives in cool and warm weather and will tolerate cold winters. Maintains good color and appearance during the summer when properly watered and cared for.



Drought Resistance: Excellent drought tolerance, but performs best when ½ inch of water per week penetrates deeply into the soil. The water can be either from natural rainfall or man-made irrigation. Superior genetics, deep roots, waxy leaf coating are paramount to *Black Beauty's* drought toughness.



Disease Resistance: Genetically superior varieties that have enhanced disease resistance, especially against the most common turf diseases.



Natural Insect Resistance: Contains natural endophytes that produce defensive chemicals - alkaloids - that are toxic to many surface feeding insect pests, such as chinch bugs and sod webworms.



pH: Favorable soil pH level is 6.0 to 7.4, but will hold up well in soils with lower pH. Apply **Mag-I-Cal** to rapidly adjust soil pH.



Amendments: Performs extremely well in any soil, from sandy loam to heavy clay, but amendments are recommended for heavy clay soils to promote drainage. Apply **Love Your Soil** to aerate clay soils, enhance proper drainage, and stimulate soil biology by increasing the soil's organic content.



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



RECOMMENDED USAGE

Residential & Commercial Properties: The growing season from March to December and the ability to withstand extensive periods of cold and hot weather make tall fescue a natural choice for home lawns and commercial properties in cool-season turf areas.

Maintenance Areas and Roadsides: Superior drought tolerance and ability to withstand summer heat make tall fescue a natural choice.

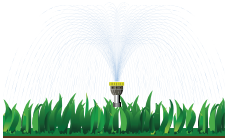
Erosion control: Excellent for erosion control because Black Beauty forms a dense, vigorous turf with a deep root system. The latter can grow up to 4 feet deep.

GENERAL CARE INSTRUCTIONS FOR SODDED LAWNS



Initial Use: During the first three weeks, avoid heavy use of your new sod. This gives roots an opportunity to knit firmly in the soil and insures the sod remains smooth and level.

Initial Watering: Give new sod at least 1 inch of water within a half hour of installation. Water daily, keeping sod moist until it is firmly rooted (within about two weeks). Weather conditions will dictate the amount and frequency of watering. Be certain that the new sod has enough moisture to survive hot, dry, or windy periods.



Regular Watering: Apply ½ to 1 inch of water as a deep soaking every 5 to 7 days to encourage deep root growth. Avoid frequent, shallow watering that results in shallow roots, permitting weed germination and growth.



Fertilization: Fertilize three times a year, once in early spring (March-early April) once in late spring (May-mid June) and in the fall (September), with lawn fertilizers containing nitrogen, phosphorous and potassium. 2 to 3 pounds of nitrogen (N)/1000 per square feet per year. Water thoroughly after fertilization. A soil test should be done once every three years to determine the soil fertility and fertilizer needs. Fertilizer and chemical applications will depend on soil type, insects, weeds and disease conditions. Traditional and/or organic fertilizers can be used on Black Beauty. Organic fertilizers are best used in the summer months because they release slowly and can't burn the lawn.



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



GENERAL CARE INSTRUCTIONS FOR SODDED LAWNS

(Continued from Page 5)



Weed Control: It is best to avoid using herbicides when sod has been recently installed or when grass seed has been planted. After the new sod has knitted into the soil, or the new grass seed has germinated and grown to a height of three inches and been mowed at least twice, weed controls can be applied. Be very careful not to spray or spread herbicides when the air temperatures are above 85° F and never apply in the middle of the day when the sun is strongest. Weed controls applied during hot, high temperatures could injure the grass. Always read the product label for proper rates and timing.



Mowing/Thatching: Lawns: 2 to 3 inches; Sport Fields 2 inches; Fairways: 2 inches. Mow often with a sharp rotary or reel mower, allowing clippings from frequent mowing to remain on the lawn. Never remove more than one-third of the grass height per mowing. Evapotranspiration rates can be reduced by more frequent mowing. Keep your mower blade sharp. Excessive clippings resulting from the mowing should be removed from the grass surface or gone over with the mower a couple of times to help re-cut and disperse the clippings down into the grass canopy to the soil surface where they can be slowly decomposed. If a thick layer of clippings are left on the surface, too much shading of the plants below can result in slow, weak growth or even death of the underlying plants due to lack of light. Vertical mowing, lower mowing heights and dethatching are recommended for dormant sod or grass breaking dormancy in the spring.



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

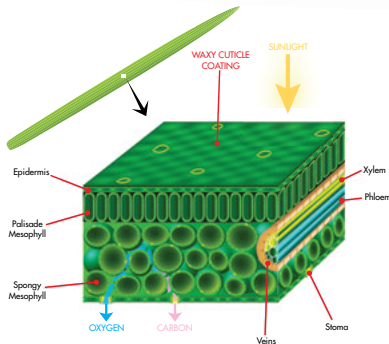
**for Sod Growers and
Landscape Architects**

A product of



BLACK BEAUTY RESEARCH MAKES ALL THE DIFFERENCE!

THE CROSS-SECTION OF A BLACK BEAUTY TALL FESCUE LEAF



The waxy cuticle coating is a unique attribute of the Black Beauty varieties.

The natural waxy coating is very similar to the natural waxy coating that makes an apple shine after you rub it on your sleeve.

This coating forms an invisible protective layer that lessens the Evapotranspiration (ET) rate, or the rate at which moisture escapes the leaf.

The waxy cuticle coating also protects the leaf from turf disease pathogens because they are held above the leaf and cannot attack the leaf surface directly.



Black Beauty Sod. The invisible waxy coating, like that on an apple or the skin of a cactus, wards off disease mycelia.



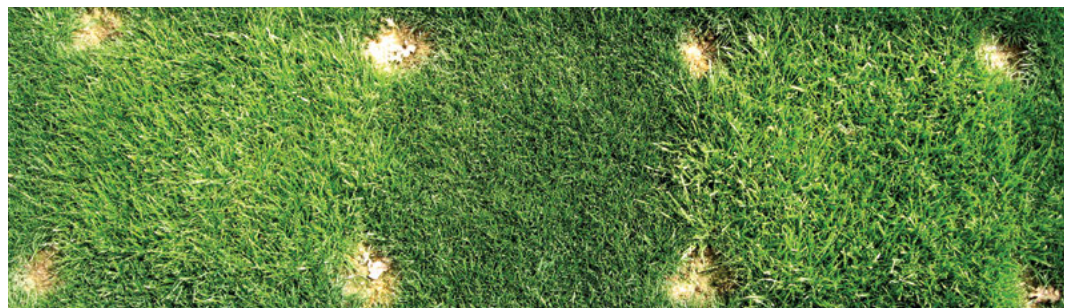
Dr. Xunzhong Zhang of Virginia Tech (VPI) performs the the antioxidant test.



Turf Mountain Sod Field, Asheville NC. First commercial planting of Onyx Tall Fescue. Onyx surrounding a "bulls-eye" of Montauk Tall Fescue. This was the very first Black Beauty Tall Fescue released in 1995.



Black Beauty Tall Fescue on the Research Farm at Cascade International Seed Company.



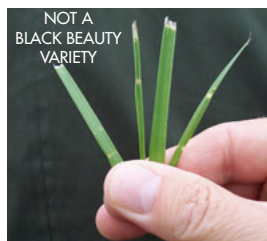
Standard tall fescue sod mixture used to produce tall fescue sod

Dakota Tall Fescue, a component of Black Beauty

K-31 Tall Fescue



Black Beauty turf grasses are evaluated for their re-knitting ability after being cut as sod.



Black Beauty will not shred or tear.



Standard tall fescue sod mixture (left) grown without competition is big and clumpy, especially compared to Montana Tall Fescue, (a component of Black Beauty,) on the right.



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

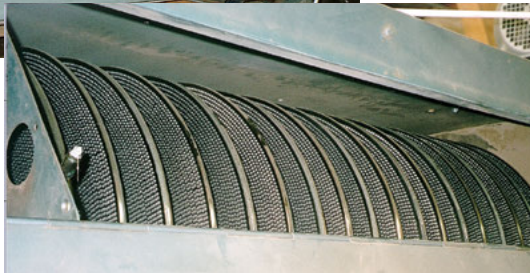
A product of



BLACK BEAUTY PRODUCTION IN THE PACIFIC NORTHWEST



Carter disks and cleaning screens remove undesirable seeds, chaff and soil in the cleaning house from Black Beauty varieties.



Seed Stock isolation field in Oregon of Taos Tall Fescue.



All Black Beauty Production Fields are "Carbon Banded" so contaminants can be sprayed out. The charcoal is dropped on top of the seed when it is planted in rows. Later, when herbicides are sprayed over the entire field to control weeds, the charcoal absorbs this herbicide rendering it harmless to the young seedlings.



Rogue Spraying Crews in grass seed production fields, walk every acre to ensure seed purity.



The same Black Beauty Production Field at four months.



Seed sample being hand checked for contaminants..



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



**“DON’T TAKE OUR WORD FOR IT.
JUST ASK THE SOD FARMER THAT GROWS ONE.”**



Robert Meisinger of Fast Grass Sod Farm, standing on a Dorado, Golconda and Toltec Tall Fescue Black Beauty Sod field

Fast Grass Sod Farm

280 East Laplatte Rd., Bellevue, NE 68123
(402) 306-3854



Matt Keeven of Emerald View Turf Farms, O’Fallon, MO is the exclusive Black Beauty Sod Farm in the St. Louis market.

Emerald View Turf Farms

1722 Hwy #79, O’Fallon, MO 63366
(636) 978-2120



Jim Keeven of Selecturf consults with Barry Green Sr. about his 8 month old Black Beauty Sod stand.

Selecturf

12202 US Hwy 63, Jefferson City, MO 65101
(573) 634-3444



Dave Johnson with Black Beauty Sod at Johnson Sod Farms.

Johnson Sod Farms

1633 Route 77, Deerfield, NJ 08313
(856) 358-1123



Dan Kelch kneeling on Black Beauty.

Kelch Turf Farm

8313 North Garden St., Kickapoo, IL 61528
(309) 691-3961



Black Beauty is the only tall fescue that stands up to the extreme heat and drought of an Oklahoma Summer.

Tulsa Grass & Sod Farm

10717 S. Delaware, Tulsa, OK 74137
(918) 369-3662



Black Beauty sod pallet flags.

John Eidson of Sodco Sod Farm, with Barry Green and Mark Arlotta of Jonathan Green Inc.

Sodco Sod Farm

264 Exeter Rd., Slocum, RI 02877
(401) 294-3100



ELITE TURF-TYPE TALL FESCUE GRASS SEED

TECH SHEET

*for Sod Growers and
Landscape Architects*

A product of



BLACK BEAUTY PERFORMS EXTRAORDINARILY WELL!



A real Black Beauty lawn grown by a homeowner in Delaware.



A real Black Beauty lawn grown by a homeowner in Illinois.



A real Black Beauty lawn grown by a homeowner in Massachusetts.



Black Beauty Sod was installed at a prestigious Ivy League university.



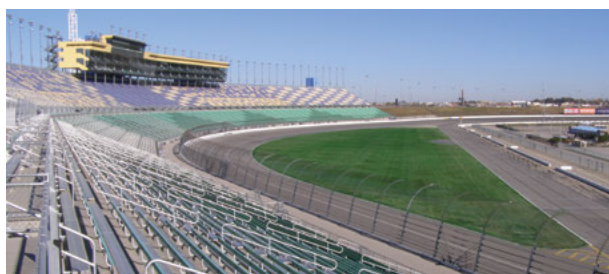
Black Beauty sod was chosen for the lawn areas surrounding the Wisconsin Capital Building.



A golf course bunker being sodded with Black Beauty.



Photo by Kirk Hunter



Black Beauty Sod planted on the 8 acre infield of the Kansas Speedway.

The Biltmore Estate, Asheville, NC, with a beautiful front lawn of Black Beauty Sod grown by Turf Mountain Sod.

SOD GROWER SPEC INFORMATION

Sod Farm Name: _____

Address: _____

Tel: _____ Fax: _____

Email: _____

Sod Harvesting: _____

Standard Roll Size: _____ ft. wide by _____ ft. long Rolls per pallet: _____

Average Pallet Weight: _____

Standard Single Piece Slab Size: _____ Pieces per Pallet: _____

Average Pallet Weight: _____

Big Roll Cut: _____ ft. wide by _____ ft. long Rolls per truck: _____

Average Single Big Roll Weight: _____

Sod Tubes Delivered: _____ # Sod Tubes Returned: _____

Sod contains netting: (Y) (N)

Sod Farm Contact Person: _____

Contact Person Cell: _____

Contact Person Email: _____



A product of  **Jonathan Green**
QUALITY TURF SINCE 1952