

Virginia Tech University, Blacksburg, Virginia

Dr. Xunzhong Zhang demonstrates the Flurometer in his lab.





Dr. Zhang cuts a sample of this experimental grass to test for its antioxidant content.

All the grass samples are labeled and frozen in dry ice so the antioxidant content will not degrade during transport back to the lab at Virginia Tech



Grass Plant Cell





The components of the Photosynthetic apparatus.

SUPERIOR TURFGRASS BREEDING CANDIDATES, RESULT IN LEAP FORWARD IN TURF PERFORMANCE!



Black Beauty - United Turf, Murfreesboro, NC. The invisible waxy coating, like that on an apple, wards off disease mycelia.



Mark Slusser, Slusser's Greenthumb, Logansport, IN, examines the Black Beauty root system.

Slusser's Greenthumb Black Beauty planted Aug. 24, 2006; germinated Aug. 31, 2006; pictured Dec. 19, 2006.



Kim Horton of Eastside Sod, Groveport, OH, receives a Black Beauty statue.



Slusser's Greenthumb, Logansport, IN.

Blue Panther Kentucky Bluegrass, planted

on right, did not get rust disease. 🔻

David Bradley, Turf Mountain Sod, Hendersonville, NC. Black Beauty planted in October of 2006.

RESEARCH UPDATE - SPRING 2007

Over the past several years Jonathan Green, Inc. has collaborated with the Virginia Polytechnic Institute and State University. Research has shown that grasses under environmental stresses produce excess free radicals which are toxic to plant cells, causing damage to proteins, lipids and other macro-molecules, leading to cell death.

Antioxidants can scavenge free radicals and protect grass plant cells under stress. Super Oxide Dismutase is one of the most important antioxidant enzymes functioning to remove superoxide radicals. Since superoxide radicals are the first product of univalent reduction of oxygen, the defense by Super Oxide Dismutase, ("SOD"), against the free radicals is also called "primary defense". The photosynthetic system II in



Tall Fescue Sod Mixture

turfgrasses is very sensitive to stress or free radical damage. The Chlorophyll Fluorometer is capable of assessing the photochemical efficiency of the photosynthetic system as a measurement of stress and thereby the plants ability to manufacture food and compete.

The remarkable new varieties of turfgrass that Jonathan Green, Inc. and Cascade International Seed Company has developed in recent years have been the result of screening potential breeding candidates by using these remarkable tests.



The Blue Panther mix planted on the left was planted on the same day as the bluegrass mix on the right, but established weeks earlier.



Jonathan Green visits Infante Sod Farm Creamridge, NJ.

Kelsey, Clint and Jim Keeven accept a Black Beauty statue; Jefferson City, MO.







Brillion seeding Blue Panther mixture. Deak Sod Farm, Kansasdill, WI. Nov. 9, 2006.

Blue Panther Kentucky Bluegrass possesses excellent seedling vigor.



Blue Panther mixture ready to plant.



Joe Infante examines the eight month old Blue Panther root system.



Blue-Tastic Kentucky Bluegrass seed trial, Plymouth, WA.



Contact: East of the Rockies Barry K. Green II P.O. Box 326, Farmingdale, NJ 07727 Ph. 1-800-526-2303, Ext. 202 Fax 732-938-5788

Email: bgreenii@jonathangreen.com





Contact: West of the Rockies Greg Hagen General Manager/Cascade Intl. Seed Company Ph. 1-800-826-6799 Fax 503-749-1824

ghagen@grass-seed.com

