

National Turfgrass Evaluation Program

National Kentucky Bluegrass Test: 2011 – 2015

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NTEP Kentucky bluegrass test at the Guelph Turfgrass Institute (GTI)

Have you ever wondered where to find the best turfgrass cultivar for your specific needs? Why not take a look at the National Turfgrass Evaluation Program's (NTEP) list. NTEP is known world-wide for its turfgrass species research program and currently evaluates 17 different turfgrass species in as many as 6 provinces and 40 US states.

Partnering with the United States Department of Agriculture, NTEP collects and summarizes information on each species on an annual basis. Turfgrass colour, quality, density, heat/cold tolerance, pest resistance are just some of the information that is collected at the various research stations involved. Once that information is summarized it can be accessed by turfgrass managers, plant breeders, researchers, and government around the world.

The Guelph Turfgrass Institute (GTI) has a long history with NTEP dating back to 1999 when we conducted our first test with perennial ryegrass. Since then, Kentucky bluegrass tests were conducted



Figure 1: Seeding a NTEP Kentucky bluegrass test, Erica Gunn, Ken Carey and Alex Porter.

in 2000, 2005 and now our latest test which started in 2011.

The 2011 Kentucky bluegrass test is being conducted at 11 official locations where they are maintained as medium or low maintenance turf. There are also 13 ancillary test locations that look at the cultivars with respect to summer patch, traffic tolerance, sod strength, salt tolerance, shade tolerance or organic maintenance. These tests are being run in New York, Minnesota, Washington, Colorado, Utah, Virginia, and Guelph, just

to name a few. Each test takes place over a four year period.

The Guelph test was seeded in the fall of 2011 (Figure 1). There are 82 Kentucky bluegrass cultivar entries in total and they were divided into three replicates. An area was tilled at the GTI and staked out in 1.5 m x 1.5 m square plots. After seeding, the plots were observed daily to determine the rate at which they germinated (Figures 2 and 3). In May 2012, the plots were rated for spring cover. Monthly turfgrass quality ratings were taken from June to November 2012.

The Guelph test is being managed as a Medium Maintenance Organic regime, as specified by NTEP. This involves specific maintenance practices, such as being mowed at 2.5 - 3.5 inches (6 - 9 cm) every 7 - 10 days. Nitrogen is to be applied at a rate of 3 lbs/1000 ft² (1.5 kg/100 m²) organic products only. The trial is allowed to receive irrigation only to prevent dormancy. Fungicides could be used only to prevent stand loss. Weed and insect control was allowed only

to prevent stand loss using organic products only. Also, appropriate cultural practices are permitted.

NTEP allows some flexibility in the actual maintenance program based on individual research station location and environmental factors. In 2012, the plots at GTI were mowed at 3 inches (7 cm) when necessary. The trial was fertilized with Milorganite Lawn & Fairway 6-2-0 at a rate of 0.5 kg N/100 m² in April, June and September. Milorganite is considered an organic fertilizer since it is made using processed sewage. Monitoring for weeds in late spring showed levels above acceptable thresholds therefore Fiesta, an organic, broad spectrum herbicide, was applied in June and again in August. Also, due to drought issues in 2012, irrigation was used to prevent trial death as well as to prevent dormancy.

For 2013, this trial will continue to be rated monthly for turfgrass quality. Maintenance of the plots with respect to mowing will continue as in 2012. Weeds, insects and disease will be monitored and treated as necessary. The trial will be irrigated to prevent dormancy. Please come by the Turfgrass Institute in Guelph, Ontario for a visit anytime to check out our Kentucky bluegrass test. Additional information about NTEP and results of past turfgrass species tests can be found at www.ntep.org.



Figure 2: NTEP plots 11 days after seeding.



Figure 3: NTEP plots 35 days after seeding.

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