

Turfgrass breeders' test provides extensive trial data

The Cooperative Turfgrass Breeders Test (CTBT) was founded in the fall of 2004. The objective of the test is to combine resources among cool season turfgrass breeders in order to provide more extensive trial data for potential new cultivars.

The United States is a large geographical area with many diverse climates and microclimates. Because of this it is necessary to obtain as much performance data of potentially new releases (experimental lines) in comparison to existing cultivars as possible. The National Turfgrass Evaluation Program (NTEP) provides an extensive testing system but is cost prohibitive for screening large numbers of genetic resources. Therefore, the CTBT was established in order to facilitate decisions about which experimental cultivars could potentially move forward. A new cultivar with positive performance in the CTBT could be included in the next NTEP trial.

The CTBT has been designed to cover multiple test sites across the US so that researchers may gain information about the scope of adaptation of their experimental cultivars. The CTBT tests are planned to precede the NTEP. This allows the breeder the ability to make an informed choice on what may be included in the NTEP.

The CTBT consists of six plant breeding programs:

DLF International Seeds, Peak Genetics, Pickseed Group, Pure Seed Testing, NexGen Turf Research, and Rutgers University. The plant breeders are responsible for determining number of entries, test schedule, evaluation methods, and selecting the standard test entries.

CTBT tests are initiated, established, maintained and evaluated using standardized testing protocols. Many locations use digital image analysis (DIA) for collection of turf quality data. DIA is very effective at rating percent green cover during periods of drought or disease infestations. Site cooperators collect data on turf quality, color, density and various diseases or insect damage. Depending



>> DR. WILLIAM MEYER rating a shade trial.

on the species, data is also collected on drought, wear and shade tolerance. Data is collected for 2 years after

sowing. In 2010 a tall fescue test was initiated at 10 locations with 105 entries. The 2011 fine fescue test also has 10 trial locations and 105 entries.

There is a great need for cultivars with reduced inputs. These reductions come through better shade, wear and drought tolerance and a reduced growth rate to reduce maintenance costs. Effective evaluation and availability of turf data assists the breeder choosing the best performing cultivars.

Results can also be used to determine if an experimental cultivar is well adapted to a local area or a particular attribute such as shade or drought. The data is analyzed and an annual report is produced and distributed to co-operators and sponsors. Reports for all completed trials are always available on the CTBT web site (www.ctbt-us.info). ■



>> PHOTO OF RUST on Kentucky bluegrass trial in Arkansas.