"Rutgers Corner"

"Park's Department"

Brad Park is the Sports Turf Research and Education Coordinator at Rutgers, The State University of New Jersey. He is assisting sports turf managers of NJ through education and research to help provide better sports turf for the citizens of NJ. .Ask Brad Park your questions: E-mail us at hq@sfmanj.org

Question: *When selecting a single Kentucky bluegrass variety or blend of different varieties to be included in a seed mixture for an athletic field renovation, what are the major considerations in selection and how would you prioritize those considerations, if at all?*

Answer: There are a number of different factors involved when choosing a Kentucky bluegrass or a blend of Kentucky bluegrasses for an athletic field. For sports turf areas that receive high levels of use, maintaining adequate turfgrass cover is a high priority. The ability of bluegrasses to resist and recover from traffic stresses should be the most significant consideration in selecting a variety or varieties.

The Center for Turfgrass Science at Rutgers University is leading the way to help enable sports turf managers to make these decisions by utilizing its National Turfgrass Evaluation Program (NTEP) Kentucky bluegrass trial to examine the traffic tolerance of Kentucky bluegrass selections and varieties.

A turf manager faced with the selection of varieties should use data provided by NTEP to assist in the decision. Annually, NTEP provides reports on the evaluation of turfgrass species such as tall fescue, perennial ryegrass, and Kentucky bluegrass. Varieties of each species are evaluated at different locations across the country for turfgrass color, density, texture, disease susceptibility, and quality as well as several other parameters. The results are available at www.ntep.org

Additionally, Rutgers Cooperative Extension provides fact sheet recommendations on the varieties best adapted to New Jersey at www.rce.rutgers.edu/pubs

As a method to evaluate the traffic tolerance of Kentucky bluegrass varieties and selections, the Center for Turfgrass Science at Rutgers utilizes a roller to create compaction stress and a machine to simulate wear. Turfgrass quality is assessed for these Kentucky bluegrasses and indicates the overall appearance of the turf. Turf quality incorporates several components including: density, cover, leaf texture (measure of the leaf width), uniformity, and freedom from insect and disease damage. Quality is assessed on a scale of 1-9 where 9=highest quality.

An analysis of non-traffic quality data from the Rutgers' North Brunswick Hort. Farm II location showed the following four commercially available Kentucky bluegrass varieties to have the highest mean turfgrass quality in 2002: Princeton 105 (7.1), Award (6.4), Blackstone (6.3), and Serene (6.3).

When traffic (wear and compaction) was applied to all varieties, the following commercially available Kentucky bluegrass varieties were the top performers for turfgrass quality in 2002: Princeton 105 (7.3), Tsunami (6.9), Midnight II (6.7), Award (6.7), Nu Destiny (6.5), Awesome (6.3), Odyssey (6.2), Total Eclipse (6.2), Barrister (6.2), Ginney (6.2), Cabernet (6.1), Impact (6.1), and Moon Shadow (6.1).

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Note that Blackstone and Serene were not on the list of top performing commercially available varieties when assessed for quality when traffic was applied to the plots. When traffic was applied to these varieties in 2002, mean turfgrass quality for Serene and Blackstone showed statistically lower ratings compared to the top performing varieties.

While this data represents only one year of research data at Rutgers, Princeton 105 and Award showed excellent turfgrass quality with and without the application of traffic. Research in 2003 will determine whether these varieties continue to tolerate traffic.

Whenever possible, a sports turf manager faced with the decision of choosing a Kentucky bluegrass for his or her field should examine traffic tolerance data as part of the decision-making process as some varieties may provide outstanding turfgrass quality when grown under optimal conditions, but perform moderately or poorly when compaction and wear become part of the equation. ▲

SFMANJ SHIRTS FOR SALE

If you are a member of Sports Field Managers Association of New Jersey, you may be interested in owning a collared knit shirt with our logo. To purchase one of these fine shirts just send a check for $25.00 to SFMANJ Chapter at PO Box 370, Annandale, NJ 08801

"Monthly Field Tip"

**by Jim Hermann, CSFM*

Here is a *formula* that I came up with that will answer every question concerning fertilizer. All you have to do is plug in the known factors to calculate the unknown. Try it!!

Formula: 100 ÷ %N x (R x A) = Q

%N = % nutrient or % active ingredient based on analysis

R = Rate of Application (1 lb. N per th. sq. ft., 1lb. active ingredient per acre etc.

A = Area

Q = Quantity (lbs. tons, of product)

T = Total nutrient or total active ingredient based on quantity

T = (R x A) (when T is the unknown or known factor, T can replace (R x A) in the equation

Examples:

Question: If you have 600 lbs. of 20 –10-10 fertilizer in your shed how much area can you fertilize at 1 lb. N/ th. ?

Formula: 100 ÷ %N x (R x A) = Q

100 ÷ 20 x 1lb./1000 ft^2 x A = 600
5 x 1 x A = 600
5A = 600
A = 120,000 sq. ft.

Question: How many lbs. of 40-0-0 does it take to fertilize a soccer field 360'x210'?
@ 1.5 lb. N per 1000 $ft.^2$**?**

Formula: 100 ÷ %N x (R x A) = Q

100 ÷ 40 x 1.5 x 75.6 th.sq.ft. = Q
2.5 x 1.5 x 75.6 = Q
283.5 = Q

Question: How many lbs. of 20-5-10 fertilizer is necessary to provide 1 lb. N per/ 1000 sq. ft.

Formula: 100 ÷ %N x (R x A) = Q

100 ÷ 20 x 1 x 1 = Q
5lbs. = Q

Question: How many pounds of fertilizer does it take to fertilize 500,000 sq. ft with 31-0-0 at 1.5 lbs. N/1000 sq.ft.

Formula: 100 ÷ %N x (R x A) = Q
100 ÷ 31 x 1.5 x 500 = Q
2419.35 lbs. = Q

If you have a tip or shortcut that you would like to share with your fellow sports field managers write or call us at SFMANJ or email at hq@sfmanj.org ▲

**Jim Hermann, CSFM is President of Total Control Inc., Vice President of SFMANJ and Co-Editor of SFMANJ "Update" Newsletter.*