



Overseeding for Sports Turf Victory

Evaluating alternative seed selection to promote improved sports field conditions.

THE PROJECT



Evaluation of Overseeding Sports Fields with New Species and Cultivars



Principle Researcher
Dr. Eric Lyons



Research Facility

UNIVERSITY
of GUELPH



OTRF Financial Commitment to The Project
\$60,000

PROJECT OVERVIEW

Sports field turf conditions throughout Canada consistently suffer from high usage, limited resources, and short growing seasons. To combat this, overseeding is a common practice to maintain turfgrass cover, reduce weed encroachment, and maintain optimum playability for both safety and quality. Current overseeding best practices recommend using exclusively blends of diploid perennial ryegrass (two sets of chromosomes). There is evidence that the introduction of tetraploid perennial ryegrass (four sets of chromosomes), turf type tall fescues and quick establishing Kentucky bluegrasses into overseeding blends, under heavy seasonal field traffic, may be an improvement and possible alternative to the traditional best practice. A revised overseeding regime may impart increased drought resistance and winter hardiness into fields that have been converted to perennial ryegrass from extensive overseeding.

THE RESEARCH



University of Guelph's Dr. Eric Lyons and his team have developed field plots with a variety of overseeding mixes to research the use of newer cultivars and species in a sports field overseeding program in comparison to traditional overseeding with only perennial ryegrass. Dr. Lyon's research goal of new recommendations for effective sports field overseeding will result in better playing conditions and safer more sustainable sports fields in Canada.

THE HYPOTHESIS

Beginning to implement new species and cultivars will improve turf cover, turfgrass quality and reduce weed infestation in sports field situations. Additionally, utilizing tetraploid perennial ryegrass, turf type tall fescue and quick establishing Kentucky bluegrass in seed blends may increase drought tolerance and winter hardiness, two challenges of perennial ryegrass blends.

PROJECT PROGRESS

Having just completed year one of a three-year project, Dr. Eric Lyons and his team at the GTI have set out 300 field plots with a variety of overseeding mixes to evaluate turfgrass field conditions of tetraploid perennial ryegrass, turf type tall fescue and quick establishing Kentucky bluegrass blends against the industry standard perennial ryegrass blends. Research has begun that includes weed control trials utilizing currently registered products (Fiesta). Field wear is simulated utilizing a wear machine and field conditions are assessed frequently for turf cover, turfgrass quality and weed encroachment.

With the first year for the establishments of the plots and preliminary testing and observations over, the following two years of the project should show significant differences between the overseeding plots.

RESEARCH BENEFITS TO THE SPORTS TURF INDUSTRY

Assuming the hypothesis is correct, utilizing newer cultivars and species in overseeding programs for sports fields would result in safer and improved turf and surface conditions for sports field users in Canada. With a new recommendation to incorporate a variety of cultivars or species for overseeding rather than the traditional perennial ryegrass, sports turf managers could achieve improved grass stands with an improved chance of fully covered grass fields.



Wear machine repetitive passes to replicate normal field usage.





Dark Fiesta strips vs. untreated strips on overseeding research plot.

FOR ADDITIONAL INFORMATION,
PLEASE CONTACT:



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The Ontario Turfgrass Research Foundation is proud to support sports turf research to improve sustainable management of turfgrass in sports field applications through proceeds from fundraising initiatives, charitable donations, and annual industry contributions.