

SPORTS TURF MANAGER

... for safe, natural sports turf

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Understanding Turf Management



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TURF JARGON A-Z... see pp 11-15



A Grab Bag of Research Results

2005 GUELPH TURFGRASS INSTITUTE RESEARCH UPDATE

Despite taking a few weeks off to attend the International Turfgrass Research Conference in Wales in July, researchers at GTI had a busy summer doing various research projects of interest to turf managers. These projects involved collecting data on the efficacy and performance of new products or formulations, controlling new pests, and evaluating new turf cultivars.

The mandate of the GTI is to do research to provide the best information possible to turf managers and to suppliers of management materials – keep in mind that some projects are early investigations of new products, so we may not have all the answers yet. We're presenting a snapshot of a few of the trials here to give you a taste. For the full results, watch for the 2005 GTI Annual Research Reports which should be available in late spring. There you will find all the data – graphs, charts and figures.

Leatherjacket control – "Evaluation of the effects of experimental natural products on survival of European cranefly (*Tipula paludosa*) larvae"

This is a very preliminary trial of some experimental natural waste-based products on an emerging turf pest. In fact, we had to do some learning on how to best survey populations of leatherjackets and culture them in the greenhouse in the course of doing the trial. There will be more leatherjacket work coming out of GTI in 2006 and beyond.

The project involved first assessing various survey, sampling and collection methods. Of the various soil drenches and other methods we tested, we found that the most effective by far were an irritating drench of o-dichlorobenzene... ➤ p. 10

Above: NTEP 2005 Kentucky bluegrass cultivar trial 5 weeks after seeding. Inset: hand seeding of cultivar plots. See page 10 for details.

A Grab Bag of GTI Research Results – Cover Story Continued

KEN CAREY, ERIC LYONS, ERICA GUNN, ALEX PORTER, PAM CHARBONNEAU, DEPART. OF PLANT AGRI. AND GTI, OMAFRA

and detergent (30 ml of each / 5 L solution) and direct harvest of the larvae from cup-cutter soil cores. We then tested the experimental material in the greenhouse on larvae in pots of perennial ryegrass, and in the field on Kentucky bluegrass. We were working with field plots infested with quite high levels of late instar larvae (>800 per m²) (see photo below), but none of the 4 experimental granular treatments we

U.S. In the trial are 110 commercial and experimental varieties, seeded at the GTI in September 2005, which will be evaluated for five years (see front page photo). We already have data from the germination and establishment phase of the trial, and will get spring greenup and winter survival data shortly. We're "fortunate" that we've had a bit of ice cover on the plots this winter, so we may see some interest-

the trial plots. We were able to detect significant improvements in the rootzones when the wetting agents are used, based on the hydrophobicity or "wettability" of soil cores taken during the season.

Organic amendments

We ran four different trials at the GTI in summer 2005 looking at various organic amendments or organic fertilizer programs on turf. These included products that are not NPK fertilizer but may provide some growth benefits (biostimulants) – Greenstreme, a hydrolyzed fish waste material and Hygrozyme, a biostimulant. These materials were applied to creeping bentgrass putting green turf, with and without NPK fertilizer, to determine their effects on turf performance. Another trial looked at palletized alfalfa (Alfalfa Green) applied as an amendment on newly seeded Kentucky bluegrass, compared to an equivalent standard NPK fertilizer. Alfalfa contains a natural growth regulator (triacontanol) which has shown some benefit in other crops during the germination and establishment period. The final trial looked at the performance of liquid organic fertilizer programs on Kentucky bluegrass turf, comparing 6 different materials which combine NPK fertilizers with various combinations of humates, iron and biostimulants, again in comparison to an industry standard NPK treatment.

Many of these products provided performance equivalent to the industry standard materials with which they were compared, though there were no outstanding breakthrough performances from the organics.

Spring ratings of most of these trials will be followed by compilation of the data for the Annual Research Reports. Some of the trials are complete, some are ongoing, and some will lead to further research in new trials. If you'd like to see the trials live and speak to the researchers in person, watch for details of the 2006 GTI Research Field Day where these and similar trials will be on display. ♦



Above: Applying experimental granular product to leatherjacket-infested plots of Kentucky bluegrass. Inset: Leatherjacket driven to the surface by the irritating o-dichlorobenzene drench.

tested had a significant effect on the field populations or on the larvae in the greenhouse. We've applied the material (fall 2005) to some early instar larval populations in creeping bentgrass and will examine these populations again this spring

NTEP 2005 Kentucky bluegrass cultivar trials

GTI has joined the most recent Kentucky bluegrass trial from the National Turfgrass Evaluation Program – along with many research cooperators sites in the

ing differences in survival – especially on the Texas bluegrass entries which are included in the trial.

Wetting agent trials on creeping bentgrass turf on high sand rootzones

Two trials, one a new trial and one in its third year, looked at efficacy of wetting agents at reducing localized dry spot on creeping bentgrass on high sand putting greens. These trials provide data which can be used for registration of wetting agents, which is required for such supplements under the Fertilizer Act. Because we did not have a particularly stressful (dry) summer at the GTI (between rainfall and regular irrigation on the green), we did not see much localized dry spot on