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ONTARIO GOLF SUPERINTENDENTS' ASSOCIATION

# Next Generation Supers Grow

### the Future of the GTI

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## Next Generation Supers Grow

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beginning with a pound of phosphorus, and

later moving to a half a pound of nitrogen.

the Future of the GTI



Co-written by: Nick Berdusco, Assistant in Training, Cutten Fields. Matt Hague, Assistant in Training, Cutten Fields. Cam Shaw, Communications and Outreach Coordinator, Guelph Turfgrass Institute, University of Guelph.

Monday August 27th, 2018 marked the first day of the grow-in at the new GTI location.

It is no secret that the project has seen several delays over the past few years so to see any progress towards the completion of phase one is exciting. Without question, one of the best things to happen to this project was

acquiring Bill Green, Class A Superintendent and OGSA member at the neighbouring Cutten Fields to oversee the grow-in. Bill Green notes, "an interesting fact about preparing this site is that the Cutten Fields was the first on site to help with tree removal, and was the last on site to ensure the grow in." It took a lot of time and hard work to sort out the logistics, but through the virtues of patience and partnership, the GTI was truly fortunate to secure the skill, organization and experience of Green and his team including Nick Berdusco and Matt Hague, OGSA members and recent turf diploma graduates. Hague and Berducso have been key contributors throughout the grow-in to ensure the plots are established before the winter.

Both the young men knew that this opportunity was on the horizon

and felt extremely fortunate to be working in the right place at the right time when the project began. Hague and Berdusco have spent every day at the new location working rotating shifts to safeguard the project's success and their enthusiasm for the project shows. Berdusco is proud to contribute to the initiative.

"This has been an incredible opportunity for me personally but my favourite part of this entire grow-in is knowing that down the road when all of the research is happening at the new GTI, I will be able to look back and know that I helped grow the initial turf in." The majority of their days have been spent watering the plots and adjusting the irrigation heads to minimize any overthrow. Each week the plots received a dose of fertilizer beginning with a pound



Bill Green providing some sage advice to Nick Berdusco on using a drop seeder.

of phosphorus, and later moving to a half a pound of nitrogen. Matt proudly shares, "This has been such an exciting experience for me. From the first day the cores were laid down and the seed was spread we waited patiently for the seed to pop up. That day came sooner than expected, and when I saw the seedlings breaking through the surface, I felt like a kid on Christmas morning."

"We have watched 5.5 acres go from bare soil to almost completely covered in different varieties of turf. I have never experienced a grow in of this caliber before."

Christmas came more than once for Hague, "We have watched 5.5 acres go from bare soil to almost completely covered in different varieties of turf. I have never experienced a grow in of this caliber before."

Berdusco also enjoyed watching the bentgrass seed germinate at different times, as well as observing what the effects of the USGA, California, non-calcareous, and calcareous greens/fairways had on the germination within the first two weeks after seeding. "Having

Matt Hague seeding the plots.



Drone East Plots (2) Sept 12 2018 (photo by Tim Dance - U of G grad Student).



Drone shot of West plots - Aug 19 2018 (photo by LoneDrone).

never done a grow-in before, this is definitely an experience I can't wait to take with me to the next stage of my career."

In addition to the 5.5 acres of research plots, there is space for additional research opportunities on the peripheries and general open areas. The West plots will primarily be for golf related research and include the following:

#### **POA PLOTS (1, 2, 3)**

The first poa green, which is larger, is 100% native rootzone material and was propagated entirely with plugs from Cutten fields, no overseed. The second (and third) poa plot is divided into two rootzones; a native mix and a dirty sand mix that might be representative of an older push-up style green. This plot was propagated with cores from Cutten Fields and overseeded with T-1

on one side and Penncross on the other; each seed on one half of the different root zones. The poa greens are anticipated to be a hotspot for diseases, pests and other stresses since their microclimates include periods of shade and reduced airflow.

#### **USGA PLOTS (4, 7, 10, 11)**

The new site has a total of four USGA speciz fication root zones each measuring over 16,000 ft<sup>2</sup>. There is a mix of calcareous and non-calcareous materials which feature a variety of traditional, newer and cutting edge bentgrass cultivars such as Pure Distinction, Focus, V8, 007, Penncross, Flagstick, and L93-XD. In addition to hosting a variety of potential research projects, these plots will significantly increase the GTI's capacity to demonstrate how these grasses produce thatch, perform at different heights, compete



with poa invasion, resist disease, and handle the variety of weather conditions experienced in the Southern Ontario climate.

#### **CALIFORNIA PLOTS (5, 6)**

The California green plot is also split into calcareous and noncalcareous rootzone materials. Four different varieties of bentgrass are featured here; Pure Select, T-1, V8, and 007, and each will cross over the two different growing mediums.

#### **SPORTS TURF CANADA CATEGORY 5 PLOTS (8, 9)**

The west plots also feature two plots that were built to the specifications of Sports Turf Canada's Category 5 rootzone. This growing medium is essentially a soil that has its silt and clay content at 50% or higher. These two plots both feature newer

dwarf KB mixes that are recommended for use on golf courses. There is much interest in the industry surrounding these low mow KB varieties and the GTI is excited to see how they perform with reference to fertility requirements, tolerance of drought, and the strength of the three different seed mixes featured on these plots.

The East plots are comprised of four sports field root zones each measuring just over 16,000 ft<sup>2</sup>. They include categories 1 through 4 and feature a variety of seed types from premium sports mixes featuring top performing KBs and PRGs to more drought tolerant varieties including turf type tall fescues and fine fescue blends on the category 3. This area also includes a sloped research plot for measuring run-off, the pumphouse, an irrigation pond and eventually the new maintenance building and G.M. Frost Research and Education Centre.

There is no shortage of work for the Cutten Fields duo and mowing the plots now takes up a significant amount of Hague and Berdusco's time as the East and West plots continue to fill out. The majority of plots need to be mowed with a walker and it takes roughly 45 minutes a plot. Hague jokes, "We have each earned ourselves a new pair of walking shoes since the beginning of the grow in."

The development of the new turfgrass research facility has been quite an extended process but thanks to monetary donors, the many organizations who donated sod, seed, and rootzone material, and Cutten Fields, the project is finally moving forward with the initial grow in well underway. There is no question that this is a special time for everyone in the turf industry, but for Matt Hague and Nick Berdusco, they agree that is a once in a lifetime experience that they will carry with them throughout their entire turfgrass management careers.

