Improved and Expanded Turfgrass Information Delivery

A Turfgrass Environmental Stewardship Funded Project

Final Report, April 8, 2016

Jennifer Grant, NYS IPM Program

Objective #1) Improve the readability of the Cornell Turfgrass website on mobile devices

Plan: *The design of the Cornell Turfgrass website is outdated. We will reformat it with a Responsive Web Design (RWD) so that content can be easily read and navigated on phones and tablets as well as computers. RWD minimizes the need for resizing, scrolling and panning, thereby enhancing user satisfaction and utilization of Cornell resources. The Cornell Department of Horticulture's webmaster, Craig Cramer, will transform the site to RWD using WordPress. An IPM technician will assist him with content migration to the new format. WordPress will easily accommodate our current resources and those in development, as well as blogs and interactive chat venues that we may wish to employ in the future. It will also enable Turf Team members to contribute updates on their own, without having to go through a webmaster.*

Results: The Cornell University Turfgrass Website was redesigned in WordPress, thereby enabling *Responsive Web Design* (RWD). The new WordPress site will be made public in spring 2016.

Objective #2) Improve the architecture and navigability of the Cornell Turfgrass website

Plan: *The multitude of Cornell resources has overcrowded the turfgrass website, making it difficult for users to find relevant information efficiently. We envision a reorganization of the website's architecture so that the Cornell Turfgrass Program website is the hub, with three primary satellites representing sports turf, lawn and grounds, and golf. A supporting layer of resources that apply across these settings will include the turfgrass variety guidelines, the weed identification and management tool, and pesticide information. The sleek design will allow users to jump to their areas of interest, while also giving space to feature new resources, news and events on the homepage. The site will be organized to optimize the user's experience by giving a quick route to familiar resources while exposing visitors to new and alternative sources of information. This reorganization will be performed by the horticulture webmaster, assisted by an IPM technician, in close consultation with the Cornell Turf Team.*

Results: The project team redesigned the website in WordPress. The new design organizes resources by setting: lawn, golf, sports, for easier navigation. Overarching resources such as pesticide information and the Weed ID key and are also readily accessible and visible to users. Social media enhancements are being rolled out that will connect turf managers in a timely fashion to the resources on the web. The new WordPress site will be made public in spring 2016.

Objective #3) Improve and expand the content of the Cornell Turfgrass website

Plan: *Improve and expand the content of the Cornell University website, such as:*

-Placing content from the Lawn Care iBook on the website, enabling non-Apple users to access information

- Placing content from the Turfgrass Varieties Guidelines iBook on the website, enabling non-Apple users to access information

-Increasing lawn care content

-Increasing the visual content by adding how-to and educational videos and webinars on the website. Some will be drawn from elsewhere (e.g. videos currently embedded in the Lawn Care iBook), while others will be created anew by the Turf Team using in-house recording equipment

-Case studies and success stories

Results: The following resources will all be available on the new website: the Lawn Care iBook in pdf format, the Varieties Guidelines iBook in pdf format, videos from the Lawn Care iBook, and additional lawn care information.

***Objective #4) Make information that is currently only accessible in the Cornell Guide for Commercial Turfgrass Management* available online**

Plan: *We will present the supplemental information from the Cornell Guide for Commercial Turfgrass Management on the Cornell Turfgrass Website and integrate it with our other online resources, without the constraints of a hard copy book. The up-to-date legal pesticide information will also be made available on the web, updated at least once a year, and heavily cross-linked with the supplemental information required to practice integrated pest management properly. We will work with Cornell's Pest Management and Education Program (PMEP) to build a turfgrass pesticide database that will generate the pesticide information that managers need to make informed and legal pesticide applications. A programmer at PMEP will construct the database, and an IPM Extension Educator will populate it with the essential pesticide information derived from labels. A PMEP pesticide specialist will verify the legality of the information.*

Results: The project team worked with PMEP to create a turfgrass pesticide database that will populate the Cornell Turfgrass Website with pesticide information. The system and template have been developed, and we are entering pesticide product data. The database provides the ability to create cross-references by grass species/type and pest (e.g. Dollar Spot, anthracnose, Grey leaf spot). The chemical data can reflect all the pertinent details on a product label ranging from application rates to protective equipment.

Objective #5) Assess future of pesticide information delivery

Plan: *We will survey turfgrass managers on how they want pesticide recommendations delivered in the future. During this assessment and transition phase, all NYSTA members will have access to the 2015-2016 online Guidelines at no cost to them. The cost of this access, and lost revenue to PMEP from not selling guides to NYSTA members, will be partially offset by a*

$3,000 payment in this grant.

Results: The survey was released to the turfgrass industry in early January 2016, and has been taken by at least 177 people. It can be accessed at: https://cornell.qualtrics.com/jfe/form/SV_0D7wa9x1yK55g7b

Survey Results as of mid March are shown in **Appendix A**. the survey will be closed in April and we will analyze the final results. Highlights to date include:

-Respondents were primarily from the golf industry, followed by lawn and sports turf
-ShortCutt is Cornell's most frequently referenced resource
-The *Cornell Guide for Commercial Turfgrass Management* is used by 67% of respondents
-55% of respondents who use the *Cornell Guide for Commercial Turfgrass Management* access it via complimentary NYSTA access
-In addition to the Cornell resources cited, respondents get turfgrass information most commonly from internet searches, pesticide product labels, and trade journals.
-Respondents favored way to access information is via computer (51%), followed by hard copy (21%). smartphone (19%), then tablet (8%).
-90% of respondents were NYSTA members
-When asked what member benefits they would like, respondents said #1 comprehensive online management info (84%), pest alerts (64%), and management Apps (44%).
-When asked how much they would be willing to pay annually for a comprehensive online management info, 33% said $50-99, followed by 26% responding $100-299.

NYSTA members were given free access to the Guidelines beginning in the fall of 2015, and access will remain available through the 2016 growing season, as promised in this project.

CONCLUSION

This grant enabled the Cornell Turfgrass Team to make tremendous improvements in information delivery to New York's turfgrass industry. Managers will be able to utilize in the 2016 growing season to enhance the environmental compatibility and quality of their turfgrass. With continued support from the Turfgrass Environmental Stewardship Fund, we would be able to:

-build on the improvements in information delivery already made

follow through on actions suggested by the results of the information survey

-keep pesticide information up to date online

-deliver more turfgrass information in multiple formats

-Keep turfgrass managers connected with information sources in real time via social and interactive media, so they can optimize their environmental stewardship