

BEST PRACTICES



NEW YORK STATE BEST MANAGEMENT PRACTICES FOR GOLF COURSES

Drips



Sustainable Turf Nutrition

Two nutrient management BMP's state:

1. Determine accurate supplemental nutrient needs based on soil chemical and physical analysis. On sand based areas, consider foliar testing as a diagnostic tool.
2. Supplement soil with appropriate rate and source of nutrients to maintain optimum availability and minimize off-site movement.

In both cases soil chemical testing is required and the interpretation of these values will serve as the basis of your fertilizer program. Over the last decade new interpretations have become available to more accurately determine turf needs. The most progressive approach currently available that will enhance water quality protection and reduce your fertilizer costs is the Minimum Level of Sustainable Nutrition available @ <http://tinyurl.com/jztun2s>. Take your recent soil test report through MLSN!

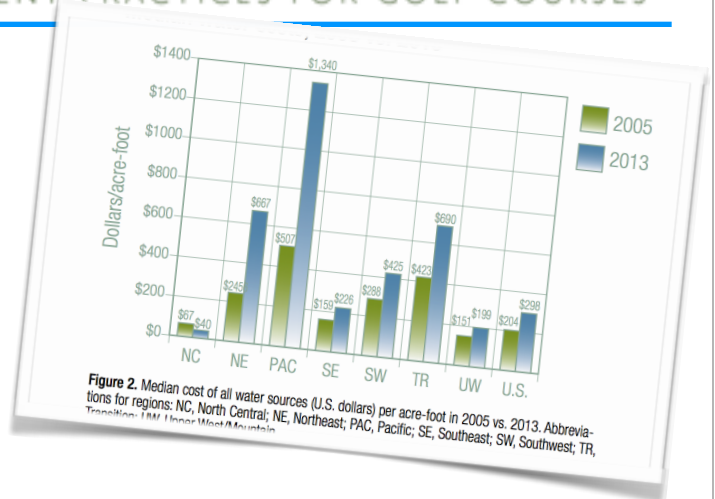
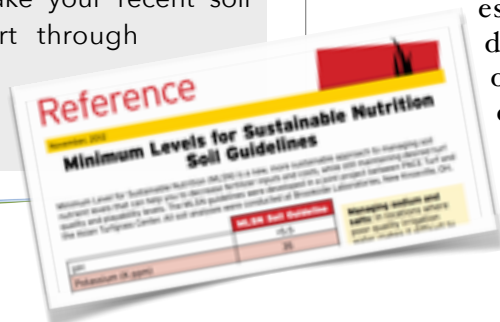


Figure 2. Median cost of all water sources (U.S. dollars) per acre-foot in 2005 vs. 2013. Abbreviations for regions: NC, North Central; NE, Northeast; PAC, Pacific; SE, Southeast; SW, Southwest; TR, Transition; UW, Upper West Mountain.

Cost of Water

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It is hard to make any argument about the amounts of nutrients, pesticides and water applied in the turfgrass industry without actually measuring the amount of these inputs. Furthermore, policy-makers and regulators are looking to industries such as turf and landscape for reductions in these inputs as part of larger Federal oversight programs such as the Clean Water Act (WOTUS). An initial collection of water, nutrient and pesticide surveys were conducted by the GCSAA's Environmental Institute for Golf in 2006. Follow-up surveys are underway and the most recent report "Documenting Trends in Water Use and Conservation Practices on U.S. Golf Courses" was released in December. There was much to be pleased with over the last decade from a water use perspective, i.e., water use was down about 20 percent nationwide in 10 years and use of recycled water increased in the US by 25 percent. At the same time there are few alarming trends from the report. Sources of water for golf course use is becoming more restricted and regulated across the country. This has resulted in a reduction of water for golf from open water sources (lakes, ponds, etc.) by 45 percent, a 22 percent decline in rivers and stream use, and a 20 percent reduction in well-water use. But among the most concerning trends, especially in the Northeast US, was the dramatic increase of 270 percent in the cost of water. It is easy to look at the numbers and say water is still inexpensive relative to other costs, especially when considering the cost of water in the drought-stricken west. However, ask around golf and other industries, how many costs increase 270 percent over 10 years and it becomes clear the economic reality of water use will help drive conservation. Get a copy of the report @ <http://tinyurl.com/z2oka65>



Selecting Pesticides Using the EIQ

There are two BMP's directly related to reducing environmental risk associated with pesticide use that address pesticide selection:

1. Determine least toxic pest control programs including preventive approaches.
2. Recognize environmental fate of pesticides and select pesticides using a selection strategy that includes an evaluation of pesticide characteristics and potential for nontarget effects.

There is a wealth of toxicological and environmental impact data for most pesticides that are used in turf, largely because of the pesticide registration process. However, these data are not all readily available or organized in a manner that is usable to turf managers. A method called the Environmental Impact Quotient (EIQ) (online at www.nysipm.cornell.edu/publications/eiq/) was devised to determine the environmental impact of most commonly used pesticides (insecticides, fungicides, and herbicides) in agriculture and horticulture. An easy EIQ calculator is also available at the NYS IPM website. As pest management plans are developed in addition to economics and efficacy-add another E—the EIQ!

Voluntary Environmental Programs: Are They Worth It?

Has your golf course considered enrollment in a voluntary environmental certification program? Is your facility already enrolled in one? Do you like the idea but can't find the time?

Help us understand this issue by taking a confidential survey developed by Audubon International and leading environmental and business strategy expert Dr. Kevin Fletcher.

The purpose is to collect data on Voluntary Environmental Program (VEP) participation in golf in order to analyze both the benefits and barriers to going green. Answering these questions will help all VEP developers/managers better serve the golf industry while also continuing to drive overall improvement and use of Best Management Practices.

Results of the survey will be shared with participants, industry associations, and other industry experts. Golf course superintendents interested in completing this confidential survey, and also entering into a sweepstakes for one of three \$100 Visa gift cards, can click here:

<https://www.surveymonkey.com/r/Golf-VEP-Survey>

Have you taken the BMP Quiz and Assessment?

In addition to the survey above, we have a few more weeks of collecting data on awareness and alignment of

golf turf management programs in NY with Best Management Practices for water quality protection. The survey will take no more than 40 minutes and it can be started and stop and save your place for a month! This is a critical step in ensuring that our industry is engaged with these concepts and policy-makers and regulators can be assured we are not only talking the talk, we are walking the walk! The quiz is @ <http://tinyurl.com/hj6y7ul> and assessment @ <http://tinyurl.com/h9nncgy>

