

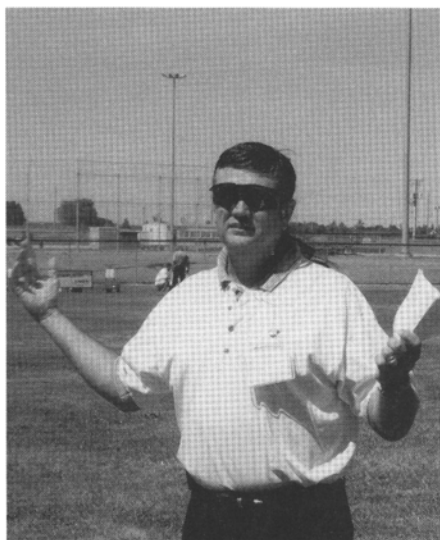
“Seed Label”). Remember all certified seed that comes out of the production field is tested via random samples. The cleaner selects a pound at random and it is sent to a state laboratory.

Sports Turf Irrigation

Dean Cormack, Service Manager, Vanden Bussche Irrigation & Equipment Limited

Design

Design looks at the greatest amount of irrigation coverage keeping in mind budget restraints. Dean advises going to more than one person with your design and compare. Every design, whether a golf course or a sports field, is site specific. The design is also dependent on where the water is coming from. VBI does not design so that sprinklers are at their maximum. Many companies will do a design at no cost but make sure it meets your specific irrigation needs.



Installation

It is extremely important to use qualified contractors for installation. Landscape Ontario has a good program for training installers. There is no certification required in Ontario to put equipment in the ground although it is required in other parts of the world. You will sleep better at night with a qualified installer. Ask around to check on systems irrigation companies have installed in the past. Whether you are a village, town or region, you need an on-site supervisor who will ensure quality workmanship, no short cuttings and that the specifications are being followed.

Equipment

As a customer, you want after-care support. Have a competent person come out and train you on the system – nine times out of 10 the contractor will say here are the keys to the pumphouse and leave. Make sure the company you select for your equipment has people to train you and your staff to ensure you get the most for your money. There are many cases where the contractor left the keys to the irrigation system and the superintendent did not even know how to turn on the computer, repair a sprinkler, valve or controller! It is up to the distributor who has the responsibility to see that this happens. If you are not getting support, get in touch with the distributor and say I need some training on this system.

Irrigation Goals

As turf managers, you are all working toward the same end – consistency of turf, consistency of the playing surface regardless of the equipment used so people are not breaking legs or turning ankles, consistency of bounce off the infield and ball roll or bounce on the soccer field. Points to consider include:

- Spacing is important. With a wind of 5 mph, in 65 feet you are losing 12% of your performance.
- Correct soils and proper turf – we don't want water on the warning track.
- How much water is at the source?
- Set the system properly so that you only get water where and when you need it.
- Scheduling for events and drying out for the big event.
- Replace only the amount of water lost through evapotranspiration – evaporation lost through the sun and transpiration lost through the plant.
- Set the controller for seasonal use – less water needed in the spring and the fall. In summer, more water may be needed. Re-calculate the controller for the time of the year and weather conditions.

Employees should be trained to check sprinklers to make sure they are not plugged, that they are turning, are installed at the right height and are working perfectly. It's easy to put a gauge on the controller. For around \$35, you can check if your system is losing pressure and if you have a leak somewhere. No matter how well you have prepared your system for winter in fall, when you start up in spring

don't turn on a single sprinkler until you can turn on as many quick couplers as you can and flush the system for at least a day, because in the winter all the corrosion and algae inside the pipe dries out and falls down. As soon as you turn on the first sprinkler, all that material will head to the first sprinkler or valve. There's a chance you will have trouble with them all season unless you take them apart and clean them.



Fertilizer

Julie Glendinning, Marketing Co-Ordinator, Nu-Gro Corporation, Professional Turf Product Division

Julie stated that what fertilizer you buy will depend on the kind of analysis you get for your crop. Proper fertilization enables turfgrass to maintain good colour, density and vigour, and allows it to resist diseases, weeds and insects more successfully. There are 16 different mineral elements essential to the growth of turfgrass – nitrogen is by far the most important. It has a dramatic impact on turfgrass colour, growth, density, tolerance to stress and recuperative power. Yet nitrogen is the mineral that is most often in short supply. If turfgrass doesn't have enough nitrogen, it will stop growing and turn pale and yellowish. That's why turfgrass benefits from a fertilizer with a reliable nitrogen source.

In general, synthetic nitrogen falls into one of three categories: 1) quick-release, water-soluble sources; 2) slower-release, coated surfaces; and 3) controlled-release reacted sources. Distribution of the fertilizer product is dependent on granule size,



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which also affects the nutrient dispersion.

Quick-release nitrogen sources are soluble in water; can be used immediately by the plant (thus plants show a rapid initial response); have high potential for foliar burn; require applications at low rates and frequent intervals to sustain growth; and leach readily. Urea is an example of one of today's most widely used nitrogen products which is water soluble. Overall, quick-release nitrogen fertilizers are not highly efficient.

Coated slow-release sources of nitrogen are slowly soluble in water; can be applied less frequently; reduce fertilizer losses from leaching; produce a more uniform growth response; are economically sound for general turf applications but are susceptible to breaking/damage with handling. Two common types of slow-release fertilizers are sulfur-coated urea and polymer/resin-coated urea. The granules have pinhole sections that wear down the coating which means nitrogen is released in the form of ammonia and hydrolyzed. Different coatings vary the length of time to release the nitrogen.

Reacted, controlled-release nitrogen sources have controlled solubility in water; supply nitrogen gradually; result in little fertilizer loss through leaching; have a low salt index and produce little burning and their performance is not affected by a coating. No matter the size of granule, these fertilizers will still release over a longer period of time. The release pattern on Nitroform (produced by Nu-Gro) can be from 12-16 months. Control release

products are pricier but more consistent, particularly for fine turf areas.

Nitrogen sources can be used alone or in mixed fertilizers, or even in combinations of quick- and slower-release sources. By understanding each source and its benefits and drawbacks, turf managers can adjust their fertilizer application programs to get the most benefit out of each turfgrass treatment.

Topdressing

Dr. R.W. (Bob) Sheard, STA

Bob was the last to speak and the program was running late so he decided to be brief in his remarks on topdressing. Some of the reasons for topdressing are to help control thatch, to modify soils, to level a sports field, and for covering seed during overseeding practices. He explained that the most important rule is to always topdress with the same material as was used in the original construction of the field or green. Experiments in the past have shown that by taking a profile of a golf green, it could be observed through the different soil layers what materials each superintendent used and how many years he stayed at the course. Particle size is also very important to retain the same type and size of sands. Otherwise it is impossible to predict water transmission and retention values that may develop with the addition of different soil/sand mix builds. ♦

— summarized by Michael Bladon

Words of Wisdom

The great things you intend to do some time must have a beginning if they are ever to be done, so begin to do something worthwhile today. — Grenville Kleiser