



DETAILS ON NEW ROLL-UP TURF AT COWBOYS STADIUM

HELLAS SPORTS CONSTRUCTION'S TURF DIVISION recently installed its patented SoftTop turf technology combined with its Matrix Turf system at Cowboys Stadium in Dallas. This system allows the artificial turf panels to be rolled up and stored, and then later unrolled and reconnected, to accommodate a wide variety of sporting and non-sporting events. The system in Dallas features interchangeable panels that make up three separate fields: NFL, NCAA/high school football, and FIFA soccer.

Bruce V. Layman, vice president of Hel-

las' Turf Division, answered these questions for us:

SportsTurf: What if anything is unique about the specific system installed at Cowboys Stadium?

Layman: What is unique about Cowboys is all of the markings are installed without disturbing the integrity of the manufactured backing system. The end zones are completely computer tufted. There are no inlay markings in the end zones.

ST: What ancillary equipment is needed to operate the roll-up system?

Layman: The Hellas Hopper, which is an apparatus attached to a forklift. This device is used to carry the rolls to and from storage. It is also used install and remove rolls.

ST: Is there a similar product available to facilities that don't have the same resources as the Cowboys?

Layman: There are several. The Alamo dome, the University of Idaho, Northern Arizona University, and Idaho State University all have the system.

ST: Describe the process for removing the field—how long does it take, how many people, etc.

Layman: It takes 650 labor man hours for turf installation, and 350 labor man hours to remove the turf. ■

OWNING A TOPDRESSER

MANY SCHOOLS, universities, and city parks have never done their own application of topdressing of sand or compost. They have always paid someone else to do the topdressing for them which may mean that it does not get done at the optimum time for their turf. At some point the turf manager might find himself considering the purchase of a topdresser and wondering what he needs to know to make a good decision.

There are four important things to consider when deciding whether the time is right to purchase a topdresser.

The area, in square feet of the average fields to be top dressed

The size and capacity of the topdresser
The size of the loader bucket

The logistics of making the trips from the stock pile to the field

If you are only doing two or three turf fields, perhaps less than 90,000 square feet, the cost of owning and operating a topdresser may not be justified. If you own or manage more than three fields the cost of hiring a custom operator for 3 to 6 years starts to match the cost of buying a topdresser for your own use.

Generally the purchase of a topdresser will be worth considering as you approach the use of about 400 tons of sand a year. That is the equivalent of ¼ inch of sand spread over four football fields.

Size or capacity of topdresser

There are many sizes of topdressers on the market, from less than 1 cubic yards to more than 6 cubic yards. In general a 4 cubic yard unit will take about 4 to 5 hours to spread 100 tons on a football. A 2 cubic yard unit will take about 8 to 10 hours to spread the same amount of material. Turf

tire pressure must be considered when using one of the larger units. To minimize tire pressure on the turf, a four wheel chassis has some advantages over the 2 wheel chassis. A larger tractor will also be needed for the larger units, so some care must be taken to match the size of the topdresser to other equipment in use on the premises.

Many people see how quickly a custom operator can complete a topdressing job. What they may fail to realize is that most custom operators use at least a one cubic yard loader bucket. If a turf manager purchases a

4 cubic yard topdresser but plans to use 1/2 yard bucket, the time needed to complete the job may be nearly doubled.

Maximum efficiency on a topdressing job is accomplished by careful placement of the supply pile, and by optimizing topdresser settings. This simply means setting four variables so that the topdresser is emptied in one round trip down the field and back, while applying the desired amount of material. This allows the operator to use the least amount of time to drive the empty machine back to the pile to refill.

The four variables are: ground speed, conveyor belt speed, spinner speed, and metering gate opening.

Owning a topdresser is ideal for many facilities, giving the manager the ability to treat his fields at the optimum time, and at a frequency that aids the maintenance of healthy turf. With a good understanding of the basic considerations discussed above, he or she can decide whether owning a topdresser is ideal for the budget as well. -By Glenn Musser, TurfTime Equipment. ■

MAKING THE CASE FOR FERTIGATION

By Michael Chaplinsky

Editor's note: This article's author is president of Turf Feeding Systems, which sells fertigation systems.

NOTHING HAS CHANGED. Sports turf management and irrigation has not changed in the past 20 years. Albert Einstein defines "insanity" as, "Doing the same thing over and over and expecting a different result." The irrigation industry is marketing "smart controllers" so does that mean they have been selling dumb controllers for years before? Everyone is marketing the same mowers, sprinklers, rakes, and most everything but just painting them green and adding propane tanks doesn't make it different or better.

Sustainable sports field management can change the game. It's an economic value first, reducing usage and costs, and also improving the quality while fitting into any budget. It will reduce irrigation water, fertilizer, chemicals, labor and energy, while improving the quality. This management practice combines the automation of fertigation together with plant and soil health to create a more efficient plant and soil relationship.

Fertigation

Fertigation is the most accurate way to micro-feed the plant and soil lightly with each irrigation cycle. Cars and trucks all use digital fuel injection to accurately manage the fuel system, and fertigation is digital nutrient injection to accurately feed and manage the nutrient delivery to the plant and soil. Each drop of irrigation water is lightly rich and sweet with plant and soil nutrients.

Fertigation can manage the sports field lightly when it is not being used or be adjusted higher to push the plant growth for recovery from damage from over use or heavy tournament play. It is a tool which can be added to any irrigation system to apply any type of nutrient program.

The efficiency of fertigation is realized by feeding lightly with each irrigation cycle. This close interval feeding can reduce the nutrient rates by at least 50% over the traditional soil stored dry fertil-

izer program. The traditional 1lbs of N per 1000ft² rate can be reduced to .5 lbs N per 1000ft² and be more manageable and produce better quality.

Fertigation feeds the plant by root uptake as well as 15% to 20% by foliar uptake, not realized by dry applications.

Drought stress is critical and fertigation can support the sports field in drought conditions with 3-day-a-week irrigation limits. It takes a lot of water to water-in a dry fertilizer application, but fertigation doesn't need it.

Rainy periods of days of rain like Florida is getting, will wash out all the dry fertilizer applied, but during a rain period the irrigation is not used and the fertilizer stays safely in the tank, waiting for a dry period to resume irrigation and fertigation. That benefit can save up to 30% of the annual fertilizer budget.

Controlled application rates

Fertigation is the most accurate nutrient application program, giving the field manager, for the first time, personal growth control of his fields. He can minimize the growth to manage fields between seasons and just maintain the quality, or he can push the growth to get the fields ready for the season or an important tournament. It is all done with the injection rate setting for the fertigation pump.

Soil health is the key to producing a great sports field and healthy turfgrass with deep dense roots. Soil health will also balance the soil

