



# Virginia Wins Field of the Year

**A** focus on excellence earned the University of Virginia's David A. Harrison III Field at Scott Stadium the 2001 STMA Football Field of the Year Award in the College/University division.

Located in Charlottesville, Scott Stadium first opened for play in 1931 with a native soil field. This was converted to an artificial turf field in 1978. In 1992, a Motz PAT system was installed with a 12-inch sand-based soil profile, a multi-zone in-ground irrigation system, and Kentucky bluegrass turf. The subsurface drainage tiles, on 20-foot centers, funnel water into a mid-field drainpipe that feeds into a storage tank at one end of the field. The system can be used to either pump or draw water off the field into the storage tank or to draw on the stored water to sub-irrigate the field.

Jimmy Rodgers, CSFM (Certified Sports Field Manager), joined the University of Virginia Athletics Department in June of 2000 as sports field manager. He says, "After 2 years of bluegrass play, the decision was made in 1994 to convert to Vamont bermudagrass overseeded with perennial ryegrass. Vamont, a wider bladed bermuda hybrid, has been the workhorse in the transition zone for more than 20 years. Its cold weather hardiness is better than most older varieties. It greens early in the spring and, if supplied the proper amounts of nitrogen, will begin to run and cover quickly in June. It served the football program's needs better than the bluegrass, but spring dead spot was a recurring problem."

Structural renovation of the Scott Stadium in 1999 and 2000 created additional seating. In the spring of 2001, the stadium and field hosted a Dave Matthews Band concert that drew 55,000 fans. Through Dave Matthew's generosity, funds were set aside to protect the field's turf.

Rodgers says, "We investigated renting high end protective field covers and soon realized that the associated rental fees came close to the expense of renovating and replacing the Vamont. We opted for a geotextile cover to protect the inner profile of the field and began planning the renovation. We investigated the newer bermudagrass cultivars seeking those exhibiting excellent wear tolerance, aggressive summer coverage, good cold hardiness, and longer fall season green coverage. Enter TifSport. Performance reports were excellent and I was impressed with the certification process required of all the licensed TifSport growers to provide a higher insurance of purity in the product."

## Scott Stadium's Field Maintenance Program

### March

- Early season maintenance as needed and weather permits
- Mowing begins as needed with height of cut at 7/8 inch

### April

- Core aeration at 3 to 4 inch depth (early April; cores not removed)
- Mowing height of cut at 7/8 inch

### May

- Mowing height of cut lowered to 5/8 inch
- Core aeration at 3 to 4 inch depth or deep tine coring to 6 to 8 inch depth (cores removed)
- Topdressing with 50 to 60 tons of "Matoponi" sand

### June

- Dethatch if needed, combined with additional topdressing (early June)
- Slice or core aeration at 3 to 4 inch depth (late June; cores not removed)

### July

- Core aeration at 3 to 4 inch depth (6 weeks from first field use; cores removed)
- Topdressing with 30 to 40 tons of "Matoponi" sand
- Slice aeration 3 weeks from first scrimmage (late July)
- Raise mowing height to 7/8 inch

### September

- Overseeding with perennial ryegrass begins



### October-November

- Overseeding with perennial ryegrass continues as needed

### December-January

- End of season maintenance as needed and weather permits

### Throughout the Growing Season

- Fertilization/nutrient applications in accordance with soil and tissue test results - the amount, source and timing adjusted to fit the needs of the dominant turfgrass
- Weed and insect control conducted on an as needed basis following IPM guidelines

### Pre-game Practices

- Clippings collected and removed only on mowing the day prior to games and game day
- Field painting begins on Tuesday of game week and completed by Thursday (Friday for rain day and touch ups)

Renovation began in April 2001, 2 days after the concert and was completed within 40 days. Carolina Green Corporation was the general field contractor for the project. The existing Vamont surface was stripped away, the sand matrix was bleccavated, and a soil fumigant was applied. The field was then laser graded and resodded with TifSport supplied by Sandhill Turf.

Rodgers notes, "One of the issues we faced in the first year was under-applying the nutrients needed for the grow-in of the new sod on the field. When the old Vamont was stripped away, we lost the rich organic layer that had built up at the top of the profile and helped retain nutrients. With the new field, we irrigated and applied fertilizer per specifications, but it was not enough. We found to adequately nurture our new base we needed to cut our nitrogen (N) application rates from 3/4 to 1 pound per thousand square feet to 1/3 to 1/2 pound per thousand square feet, and apply weekly rather than every 2 weeks.

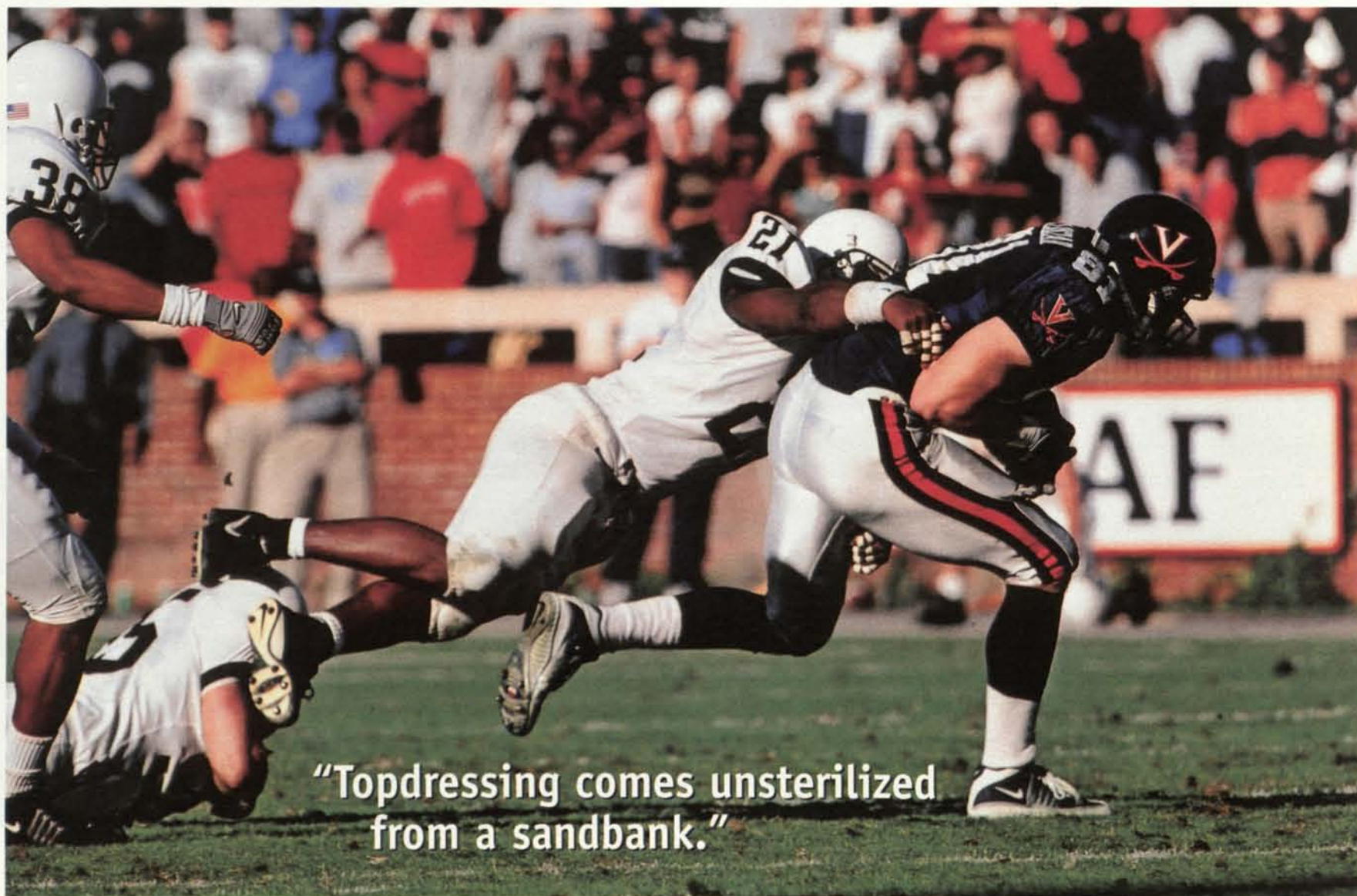
"The different soil matrices also proved to be a challenge from the nutrient standpoint. We have a rim of natural organics that surround the PAT area of the field. Though we sodded wall to wall, these different soil profiles had different responses to

our nutrient amendments and thus required some differences in the other maintenance procedures.

"The other adjustments we made involved our height of cut. By raising the height and increasing the canopy we were able to increase the green material seen. Frequently, as bermudagrass matures over the course of the growing season, it can get so thick and dense that scalping can become a problem if you are utilizing different mowing patterns, which you should be doing. We've found that, when this patterned scalping does occur, increasing the height of cut can be a way out of an ugly situation."

Charlottesville is in the middle of the transition zone, which presents Rodgers with the biggest challenge in the field maintenance program—which grass to manage and how to manage it.

The perennial ryegrass-overseeding program generally will begin in early September, based on the season's game schedule. Usually one or two of the fall games are played on straight bermudagrass before the perennial ryegrass is established. By late September, the nights are turning cold. Rodgers will use a combination of irrigation,



**"Topdressing comes unsterilized from a sandbank."**

running the system between 3:00 and 5:00 a.m., and well-planned use of field covers to keep the frost off the TifSport as long as possible, to help hold its color. A killing frost will occur by the second or third week of October.

Rodgers says, "When the frost hits we had better have green cover from the rye for the playability of the field and for the aesthetics, both for the fans onsite and those watching on national TV. We use a mix of three or four perennial ryegrass cultivars and that selection varies. We're looking for exceedingly good germination rates, not longevity. We want the ryegrass up and growing quickly so we can manage it for a few months and then phase it out. The overseeding rates are adjusted based on field playability and aesthetics. Normally, we are seeding at very heavy rates as November approaches, reaching overall season totals of at least 25 pounds per thousand square feet. As the percentage of ryegrass increases in the bermudagrass base, we'll begin hitting the field with a dew sweeper at 7:00 or 8:00 a.m. on game days to better dry down the field for a noon or 1:00 p.m. kickoff. Once the bermudagrass is dormant, we'll adapt the fertility, irrigation, and mowing to the needs of the rye."

Rodgers waits for the degree days to catch up with the bermudagrass in the spring to switch the focus of the maintenance program. He says, "We'll core aerify to a 3-4 inch depth, generally in early April, right after the spring game. As green up of the bermudagrass base begins, we'll start spoonfeeding N and K at a one-half to three-quarter pound rate. By May, we'll drop the mowing height to 5/8 inch to help transition out the perennial ryegrass. We'll start the first full balanced feeding of nutrients as May temperatures warm.

"In late May, we'll core aerify at 3-4 inches or deep tine core to a 6-8 inch depth.

Compaction is not our prime concern at this point. Coring and topdressing are used to drive root development to aid our sheer strength toughness. We will collect plugs to remove the thatch debris. This is followed by an application of 50 to 60 tons of straight "Matoponi" sand. This topdressing sand is unsterilized and comes from a sandbank south of Richmond on the James River. The supplier, Luckstone Corporation, named it for the Native American tribe that was located along the river back in the 1600s. We match the particle sizing to our existing sand profile and keep 80 to 85 percent in the medium to coarse grade range.

"We'll slice aerify in late July, three weeks from the first scrimmage.

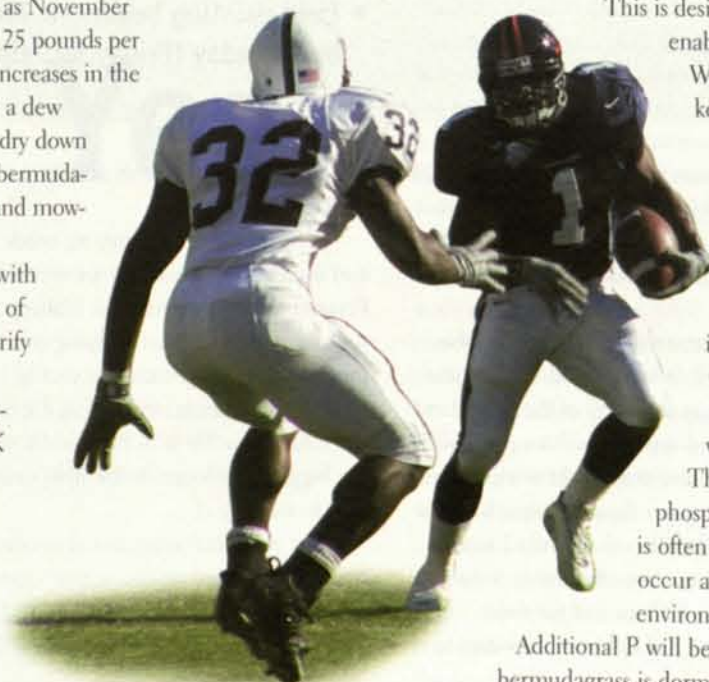
This is designed to sever the bermudagrass rhizomes and stolons, enabling the turf to develop a greater degree of thickness.

We'll also adjust the mowing height up to 7/8 inch and keep it at that level throughout the fall football season."

Soil and tissue tests are conducted annually, with the fertilization and nutrients program adjusted in accordance with test results. Generally, 8-10 pounds of N are applied per thousand square feet during the growing season, through a combination of slow and quick release sources. The amount, source and timing adjusted to fit the needs of the dominant turfgrass. Generally frequent applications of 1/3 to 1/2 pounds per thousand square foot of N will be made over short intervals, rather than higher ratios over extended intervals.

The slow release applications combine balanced levels of phosphorous (P) and potassium (K). The quick release source is often 46-0-0 Urea, which is applied only when no rain will occur and the water levels can be monitored accurately in an environmentally appropriate manner through irrigation.

Additional P will be supplied before overseeding in September. Once the bermudagrass is dormant, additional K will be supplied to the perennial rye-



grass. Small amounts of iron will be used as needed to enhance field aesthetics. Iron and other sprayable supplements will be applied on the Tuesday or Wednesday before a game for greatest visual effect.

The stadium is used for football only, though future concerts are a possibility. There are seven home games each year and a spring game. Occasionally, the visiting teams will walk through on the Friday before a Saturday game. Former football coach George Welsh brought the team to the stadium field for Tuesday practice. Al Groh, the current head coach, has used the facility exclusively for games.

Football-only use doesn't lessen the maintenance challenge for those 57,600 square feet of playing field and especially not for the 12,000 square feet between the hash marks. With 320-pound linemen who can vertical jump 40 inches and the ever-increasing speed and agility training of all players, the turf stresses continue to rise.

And, while Scott Stadium is on campus, it's 3/4 of a mile away from the heart of campus and the main University Hall sports complex, which does pose some logistical problems. The main complex consists of a soccer/lacrosse stadium, a baseball stadium, a track and field complex, two natural grass football practice fields, an artificial turf practice field, and three other auxiliary practice fields. The auxiliary fields are used primarily for men and women's soccer and for conditioning and agility drills by all the teams. This adds up to 16 acres of close-cut sports turf. There also are 8 acres of common fescue, bluegrass, and perennial ryegrass turf areas surrounding the fields and athletic buildings that are under the care of Rodgers and his staff.

He says, "I have what I consider the best grounds crew in America. Henry Shifflett



Winter holiday is Rodgers' only downtime.

brings an agricultural background to our program, having worked on an Albemarle County horse farm for 25 years. Tracy Burge brings extensive golf course experience. I've gained sports field management experience at the professional baseball, as well as the college, levels. The three of us have molded all that together in our comprehensive maintenance program. We've added part-time student staff members during the spring and fall seasons, and anticipate hiring an additional full-time person soon.

"Al Groh has set our program on a course to win a football national championship at the University of Virginia. Our purpose and our function are to support this aspiration and the goals of not only football, but all of our University's athletic teams, through

excellence in our field maintenance program. An important part of that is communication with the coaches and athletes so they are aware not only of the role of the field in this process, but also of the need to preserve the field as a resource. I need to convey the importance of the turf so that its preservation is part of the planning for practice layouts and the game plan."

Rodgers adds, "Our coaches and the University administration have been very supportive of our maintenance efforts. They recognize the fact that our fields are an important asset for the University and a great recruiting tool. Five of our seven home football games were either regionally or nationally televised in 2001. All of the coaches hold various camps, which bring potential students and their parents to view the campus and our sports facilities. Our staff takes an aggressive and proactive approach to our sports field maintenance program with the purpose—providing the best possible fields for all of the athletes—always our key focus."

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## Congratulations to the University of Virginia

### STMA's College/University Football Field of the Year



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