

ryegrass had been used only in areas of heavy wear — where the outfielders stand, the foul areas and in the area where the batting practice outfield screen is placed.”

At Coors Field, Razum is dealing with the young, 90 percent sand, 10 percent peat soil profile and a turf mix of 60 percent perennial ryegrass and 40 percent Kentucky bluegrass. He's working toward the 70 percent bluegrass, 30 percent ryegrass ratio he'd prefer for greater durability and the tillering advantages. He says, "There are more divots with the perennial rye, so we have to go in with more seed and sand.

"It will take another year or two for the field to settle in. We're spoonfeeding nutrients to correspond to turf needs and using an organic fertilizer to 'build up' the field. The potash to nitrogen ratio is critical. With heavier potash



The Brewers' fertilization program includes extra potassium, which has a residual effect that keeps a pattern holding longer. Photo courtesy: David Mellor.

levels the turf is more upright on its own, almost like a bristle brush, so the mowing pattern tends to disappear or looks weaker than it would with a more normal potash level. We're spraying on more iron now, which creates a more equal color as well as improving turf quality."

"We're topdressing with straight sand of the same type and size used in the original soil profile, rather than a sand/peat mix. This eliminated the slick organic mat right at the top surface of the soil that developed following field construction."

The Crowning Touch

Razum says, "Fertilization, aerification, irrigation and mowing are all coordinated to meet turf needs. The patterns 'polish' the field. They're the crowning touch to all the babying we do for it."

Razum started establishing patterns in Arizona during spring training. It was the first time he'd had access to reel-type mowers. He says, "We were getting help from a golf course, and seeing the results they achieved with the reel mowers, I wanted more detail for our field."

When Razum took the position at the Oakland A's Coliseum in 1989, the pattern concept went with him. He says, "There were a few fields being striped at that point, but we wanted more. We developed a cross pattern, which meant



A successful pattern should have no effect on the players, allowing them to concentrate totally on their game. Photo courtesy: Mark Razum.

we didn't need to go up to the mound and make those sharp turns. The pattern kept the turf properly mowed by not crossing those areas of the mound. It also slowed the ball a bit around the mound, helping the pitchers make infield plays."

Imitation is the most sincere form of flattery. Mellor says, "When we initially moved into patterns, we were really impressed with Mark's and 'copied' it. We even dubbed it 'The A's Pattern.'"

"Our first really original pattern at County Stadium came in 1993 and originated as a form of distraction," says Mellor. "Forklifts had created a worn path in the outfield during the in-and-out movement of materials for a Paul McCartney concert. We immediately deep-tine aerated, topdressed and overseeded the damaged turf, but weather wouldn't allow us to do anything more. That section of the field sure didn't meet our standards, and the team was headed back for a home stand.

"This coincided with my opportunity to put in my creative designs. So, with Gary's full support, we decided now was the time to try out an innovative checkerboard pattern in the infield to divert attention from the outfield. It took from 11 at night until 9 in the morning to get



Patterns are the result of a crew's extra effort, and their ideas can be freelance, sketched on a pad, or created on the computer screen. Photo courtesy: David Mellor.

just the right effect. Fans and sportscasters, including Tom Seavers and Phil Rizzuto, all raved about the new look — and no one mentioned that outfield turf."

How They Do It

All three declare you need supportive management and a super staff. It's vital for team and facility owners and field users to respect the abilities and judgment of the sports turf managers. All within the grounds department must work together to make the field the best it can be.

Razum calls his crew "tops" and credits them with dreaming up and sketching out many of the pattern ideas. He notes the special efforts of Jose Gonzales on the infield and Javier Rivera on the outfield. Rivera is "the master" of mowing that perfectly straight line. His impromptu "command" performance demonstration at the Colorado STMA Chapter's June meeting drew spontaneous applause from the attendees. (Gonzales drew similar applause on his skinned area drag mat techniques at that meeting. See coverage of that meeting in the July issue.)

Razum's crew mows in the pattern, using a walk-behind reel mower for the infield and a triplex reel mower on the outfield. The front and back rollers "etch" in the pattern with no additional rolling.

Razum says, "Time is a very important factor with the young field. We want a striking pattern that is still basic and simple to execute. Sometimes a pattern is born of 'freelance art' on the mower. Something just clicks, and we give

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Pattern Masters

continued from page 11

it a try. More often we'll draw out a pattern on a sketch pad. Rivera's skills really help. He can do a diamond cut pattern by visually lining up with two spots on the field."

Vanden Berg says, "It's one thing to come up with a pattern idea, another to execute it well. I credit David and the crew members for making it work. Etching in the patterns does add a little wear and tear to the field, so the turf must be in top condition to withstand the stress."

Mellor says, "The crew's extra effort and pride across the board make it possible to do the patterns. It's definitely a group effort. Pattern ideas may be freelance, sketched on a pad or created on the computer screen, blocking out the various segments in two different shades of green."

"Crew member Doug Schoch assists with both patterns and computer design. Crew member Kirt Bakos helps a lot in the infield. And crew member Jeff Adcock even challenged me to come up with an idea to honor future Hall of Famer Robin

Yount when his number was retired. We decided to create a huge number 19 pattern."

Mellor explains that the grass blades bend in the direction the mower travels. The light and dark sections are created by light reflecting off the blades. As you face the field, the turf appears light where the mower traveled away from you; dark where the mower traveled toward you.

With the design in hand, Mellor and crew divide the field into quadrants, then measure out and run a string line down a specific section. The string can then be stretched over to the other side to make sure matching segments are uniform.

Mellor says, "Initially, to accommodate slower infielders, we cut the turf at 2 1/2 inches with a rotary mower. We then followed up with a reel mower, without the reels engaged to roll in the pattern. Now we mow the field in one direction with a triplex reel mower, alternating that direction at each mowing so we don't get any 'grain' in the grass that might cause snaking or unusual bouncing of the ball. We then form the pattern with the

walk-behind reel mower, without the reels engaged."

Mellor usually mows in the initial pattern, with crew members handling subsequent mowings. He sets up the first stripe of each segment with the string line and lines up the remaining stripes in each segment to the first stripe. A slow, wide turn at the end of each stripe avoids scuffing and turf wear. "Skinny lines" are formed with one pass of the mower; "fat lines" with two passes. The mowing of each section is planned in order, so as the mower moves on to the next section, the turning portion is "wiped out" with a "clean up pass." Generally, one pass with the mower is sufficient, but for major games, Mellor and crew etch in each stripe with three passes for definition of contrast. The reels of the mower aren't engaged for the additional passes.

Crews mow every day during home stands; every other day when teams are on the road. During team travel, different mowing angles are used and new patterns are tried out. These changes help the turf maintain an upright growing pattern and improve overall turf vigor.



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All three "pattern masters" caution that an idea that looks great on the sketch pad or computer screen may not work on the field. Patterns are viewed from every angle by on-site spectators. TV camera crews and print photographers add another dimension to that viewing. The aesthetics of each pattern are gauged from all angles before a go-ahead is given for game use.

Who Notices

All have fielded questions on their patterns. Fans try to guess how it's done, coming up with ideas like different types of grasses planted in stripes or segments, turf mowed to different heights or painted in different shades of green.

Vanden Berg says, "The patterns become a signature for your ballpark, and with the multiple coverage of the networks and two ESPN channels, exposure has greatly increased. We've received calls from all across North America, sometimes from friends or couples wanting us to settle an argument about how it's done."

Mellor reports, "We've walked other sports turf managers through the steps of developing a specific pattern, sometimes over the phone and sometimes in person. The patterns have received excellent media coverage, including spreads in the *Cleveland Plain Dealer* and the September 1995 issue of *Popular Mechanics*. The *Milwaukee Journal* sports writer, Tom Haudricourt, joked about what we might do when Robin Yount's number was retired and, when he found out we were working on a field pattern for it, covered that as part of the news story."

Razum says, "When the A's played the Giants in the 1989 World Series (the one cut short by the earthquake), a *San Francisco Chronicle* sports writer derided our pattern, wondering how anyone with bad eyesight could even watch a game on our field. That sparked the first feedback from our players, who rallied around us and told everyone how much they liked the patterned field."

Razum says, "We'll change a pattern just before a home stand, so the players have a new look when they come back, or we'll change the pattern halfway through a home stand, as a bonus for the fans."

"Last year we tried a circular pattern for the first games of a seven-game home stand in mid-August. The team lost the first three games. Our owner said he

was feeling a bit superstitious about it and asked us to go back to the old pattern. We did — and the team rallied to win the final games. The morning after that first win, I had five media calls. A field shot made the front page of the newspaper. One of the radio stations did a remote broadcast, with one of their microphones attached to our mower."

Mellor says, "There's a fraternity of sports turf managers out there, striving for perfection in the traditions of the late Harry Gill and of George Toma's and then some"

philosophy. Field patterns are one more way of demonstrating our professionalism and earning both the notice and respect this industry deserves." □

Steve and Suz Trusty are partners in Trusty & Associates, a consulting firm located in Council Bluffs, IA. Steve is Executive Director of the national Sports Turf Managers Association.



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Chemical Log

Biostimulants: Long Term Investing Pays Off

By Robert C. Kefer

As with other modern athletic facilities, Trinity University in San Antonio, TX, installed sand-based

grass fields some years ago for the usual reasons: the natural green look, drainage that's as good as artificial turf and, hopefully, fewer injuries. But Mike Schweitzer, who is director of grounds, quickly learned

that, because these fields drain water better, they can also lose nutrients and fertilizers. That's when he started thinking about how he was going to compensate for the losses over the long haul.

The way a number of sport turf managers are doing this is with biologically based products. Some products are based on a class of substances called biostimulants. Harvested by several manufacturers from naturally occurring soil organisms, biostimulants are mixed with other organic substances into formulations that address a range of turf needs.

Biostimulant products are packaged and sold in a number of ways depending on the manufacturer. The most common is represented by companies which grow specially selected blends of natural soil organisms in large fermenters. They then harvest the liquid, or exudate, after an appropriate time and blend them with other natural ingredients to create a range of products. Products are usually sold in liquid form.

Other suppliers offer turnkey systems, which grow live bacteria specially selected for particular kinds of soils, plants and climates. The facility purchases or leases the equipment and is responsible for the system, harvesting the organisms, and then applying them to the turf.

Biostimulants derive their name from their capacity to induce the growth of soil microorganisms after applied to the turf. Sand-based athletic fields have lower populations of such organisms because of the hydroponic nature of the technology.

The key to using biostimulants is sometimes finding someone with the experience to help. Mike Schweitzer's turf survives a heavy schedule in part because he started using biologicals about three seasons ago. He also credits the expertise of consultant Darrell Kinsey, who helped him get started and keep running.

Kinsey, of Greenbelt Turf Services in Lindale, TX, says that, while there never is any magic bullet that fixes everything, "Biostimulant products can be an important factor that makes everything else you use work better." He notes that biological products and programs are now available for softening up compacted



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soils, reducing sodium and herbicide buildup, treating thatch problems and for increasing nutrient availability both in the soil and the plant.

Knowing how to use biologicals is all new and therefore must be learned. Kinsey says, "It's not rocket science, but neither can you just put the products down and expect miracles." In fact, unless a client uses his advice in testing soils and in watering, then he suggests these new kinds of products not even be used. He says, "It would be a waste of their money because the soil chemistry in each field is always unique."

Terry Lee, of AgPro Systems of Big Sandy, TX, agrees and points to a couple of his clients in Oklahoma. He says that, unless they had worked with him and first tested their soils before applying his products, he's sure they wouldn't have worked as well. "Biologicals work with any kind of grass and in any kind of soil, but you have to know first the soil's condition. After we do that, then we can advise them on which way to go."

Oklahoma City Schools has been using Lee's products for nearly two years on its

native soil fields. In that time, says Eddie Griffin, director of athletics, "All of our fields seem to regenerate better and are in better shape than ever." One of his fields, Taft Stadium, hosts 130 events per year. Stadium Manager Jim Jones reports there were no bare spots at the end of the season, and roots had grown from a length of three inches to six inches. Jones says, "We cut back on water by 50 percent from the year before, and we had a softer field, which really cut down on injuries."

Nevertheless, Mike Schweitzer cautions people not to expect dramatic or sudden results from biologicals. "It's more like a long-term investment," he says.

He adds, "These products just make everything else work more efficiently, help reduce the effects of natural compaction, and we hope to establish a uniformly deep, healthy rootzone from sideline to sideline."

"There might be some chemical cost savings, but we think that the real benefit is stronger turf, a more acceptable turf." At the same time, he says they've reduced water consumption about 30 percent, mostly because the biological

products he uses are combined with surfactants that cause the soil to use water more efficiently.

Schweitzer adds, "We do think that over time the dependence on chemical fertilizers, herbicides and pesticides will be less."

Other benefits of biologicals noted by grounds managers include their ability to aid in the germination of overseeding and to help green up fields faster. Some people feel that they give you the ability to use slow release nitrogen and apply it just once a month, as opposed to every ten days or so for the quick release nitrogen.

Some familiar with biologicals have seen up to 60 percent savings in water, prompting one manager to suggest that perhaps even more savings could be realized if you put your irrigation systems on separate water meters. In this way, you won't be paying sanitary sewer charges for irrigation water.

The bottom line is that new biological-based products are available to assist sports turf managers, but they have to be learned about and they have to be tried. It takes time, but the rewards may be well worth it. □

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Overseeding Bermudagrass Turf

By Richard L. Duble

To some, overseeding is a simple operation — just scatter some seed and wait until they germinate. But to the professional sports turf manager, whose success depends on the quality of the product, overseeding is a complex operation that requires preparation, timing and luck. Unfortunately, knowledge and experience do not always suffice. Just plain bad luck, usually unfavorable weather conditions, can sometimes ruin sound procedures.

The objective of a skilled sports turf manager is to minimize the chance for failure by proper seedbed preparation, planting adapted grass varieties at the proper time, and careful management during the seedling stage.

Seedbed Preparation

Seedbed preparation is just as important for establishment of a new turf. Perhaps one of the greatest causes of a poor stand of winter grasses is poor



Late summer (before September 1) is an ideal time to aerify to alleviate compaction, reduce thatch, and help develop a bed for overseeding. Photo courtesy: Jim Puhalla.

seedbed preparation. Thatch, compacted soils, and weeds in the seedbed can result in seedling diseases and thin stands of grass during the early stages of overseeding.

Seedbed preparation does not begin two weeks before the date of seeding. It begins several months prior to seeding. Light vertical mowing during the summer helps to reduce thatch in bermudagrass turf. Aeration and topdressing also help

Overseeding with PGRs

By Brian Delgado

To be most effective, overseeding must be conducted in a quick, efficient manner while minimizing any disruption to play. Fortunately, sport turf managers have a wealth of technology to assist them with overseeding. While better seed and superior equipment go a long way toward improving efficiency, foliar-absorbed plant growth regulators (PGRs) are taking today's overseeding projects into the 21st century.

PGRs fall into three classifications: Class A, Class B or Class C.

Class A PGRs interfere with the production of gibberellins late in their biosynthetic pathway, which reduces growth and stem elongation. They are useful in moderately to intensively managed turf areas. Primo (active ingredient trinexapacetyl) is a Class A PGR and enters through the turf's foliage.

Class B PGRs also block gibberellin synthesis, but interfere with the production very early in their biosynthetic pathways. These compounds can be used on moderately to intensively managed turf, but their usefulness can be limited by the degree of turf bronzing that often accompanies foliar growth suppression. Cutless (flurprimidol) and Scotts TGR (paclobutrazol) are Class B PGRs and enter through the turf's roots.

In contrast, Class C PGRs are mitotic inhibitors, which prevent cell division or stop

new growth for a defined period. Excellent seedhead control is often possible with Class C PGRs; however, turf color and recuperative potential can be diminished. Slo-Gro (maleic hydrazide), Embark (mefluidide) and Limit (amidochlor) are Class C PGRs. Slo-Gro and Embark enter through foliage, Limit through roots.

A PGR's mode of entry can determine how useful it can be in an overseed program according to Dr. Bert McCarty of Clemson University. Root-absorbed PGRs may slightly hinder the overseeding process, McCarty says. These PGRs' residual activity in the soil may cause seedling establishment to be slowed.

Foliar-absorbed PGRs such as Primo have little residual soil activity. As a result, adds McCarty, overseeding can begin soon after the PGR application with minimum effect upon the overseed.

McCarty examined the success of perennial ryegrass overseed establishment in Primo-treated Tifway bermudagrass and untreated test plots. After making a PGR application earlier in the month, McCarty overseeded his test plots on October 24. He found that ryegrass coverage ranged from 73 to 95 percent in the treated turf while the untreated controls only had a range from 54 to 88 percent. Similar tests later in the season were less compelling than the October overseeding because of decreased bermudagrass competition as the season progressed.

While testing continues, the limited data currently available shows that some PGRs are more compatible with overseed maintenance. It's best to check label recommendations prior to using any PGR to ensure overseed compatibility.

PGRs have also been tested in the field by sports turf managers, such as Dale Wysocki, who has served as facility superintendent for the Minnesota Vikings' practice facility at the team's headquarters in Eden Prairie, MN, since April of 1995. His job responsibilities include caring for the team's two natural turfgrass football practice fields — no small feat for a facility that experiences almost constant use.

To maintain the turfgrass conditions necessary to accommodate the football team's practices, Wysocki overseeds up to 14 times a year. During the spring and early summer, he makes monthly overseed applications. After summer camp, just prior to the football season, he often overseeds on a weekly basis.

To assist with his turf management activities, including his overseeding measures, Wysocki applies the plant growth regulator Primo at the half-ounce rate every three weeks.

"The results are very dramatic," says Wysocki. "Primo gives the seedlings a better chance to establish. Because of the effective growth management, I know my overseed is going to get the nutrients and water it needs for a quick start."

control thatch, provide a smooth surface, and create favorable conditions for germination of winter grasses. Timing of each of these practices is crucial to their success.

Light vertical mowing should begin in midsummer and continue until bermudagrass growth slows. Frequent vertical mowing so that the effects are not noticeable after several days is the most successful program to follow.

Aeration is also important to seedbed preparation. Early spring, late spring, and late summer are ideal times to aerify to alleviate compaction, reduce thatch, and help develop a seedbed. Overseeded sites should not be aerated after September 1 because it promotes germination of annual bluegrass. Core aeration within a month of the date of planting also results in the seed emerging in clumps rather than in a uniform stand over the site. Light and frequent topdressing also helps prepare a bermuda sports field for overseeding. Topdressing materials may vary, but most topdressings consist of a high percentage of medium-textured sand.

More important than helping to prepare a seedbed, all of these practices (vertical mowing, aeration, and topdressing) help maintain an attractive, smooth, resilient surface up to the time of overseeding. Of course, routine mowing is the unwritten requirement that must go along with the other practices to maintain fine bermudagrass sports fields.

Where these cultural practices are followed, there is little else that needs to be done at the time of overseeding.

Turfgrass Selection

Sports turf professionals prefer the perennial ryegrasses. Their fast establishment, wear tolerance, and competitiveness provide greater opportunity for success. And in overseeding operations, reducing opportunities for failure is important to the sports turf manager. Seed quality is an important consideration when purchasing seed. In addition to certification of grass variety, seed labels contain information on purity, germination, and weed seed content. Since seeding rates are based on a pure live seed

basis, information on purity and percent germination is required to calculate the amount of seed to plant. A typical ryegrass seed label may appear as follows: Purity: 98 percent; Inert: 1.5 percent; Crop: 0.4 percent; Weeds: 0.1 percent; Germination: 90 percent.

To calculate the pure live seed in this seed lot multiply the percent purity by the percent germination. In the above example, the seed lot contains 88.2 percent pure live seed (98 percent X 90 percent). If seeding specifications require 20 pounds of ryegrass per 1,000 square feet, then 22.7 pounds of the above seed lot must be planted (20 ÷ 88.2 percent). A weak stand of winter grasses may result if planting rates are not determined on a pure live seed basis.

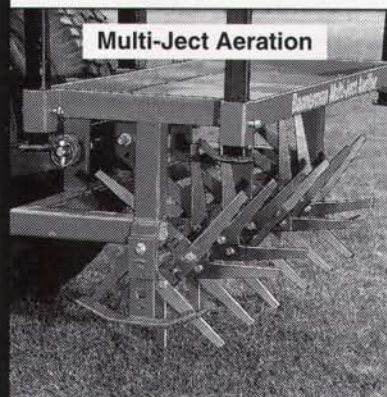
Planting Procedures

Distribute seed in several directions to obtain uniform distribution. Water lightly for several days to work the seed into the turf.

Watering is critical during the establishment period, but avoid overwatering.

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Overseeding

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Wet, water-soaked sites are prone to disease problems during seedling establishment. The surface must be lightly watered at frequent intervals to obtain rapid germination. Uniform application of water is essential to uniform emergence of seedlings. Light watering two to three times a day for seven to ten days is ideal. After seedlings emerge, water frequency can be gradually reduced to your regular schedule. Do not continue the light, frequent irrigation schedule past the germination period. Thorough irrigation at less frequent intervals is important to promote root development.

Planting date plays an important role in the success of an overseeding program. Planting too early increases problems with seedling diseases and with bermudagrass competition. These two factors can seriously weaken and thin overseeded turfgrasses. On the other hand, planting too late can prolong the time required to obtain a complete

cover because of low temperatures. Generally, the ideal time to plant is after bermudagrass has nearly ceased growing but before freezing temperatures are expected. A more specific date would be when soil temperature at the four-inch depth reaches 72 degrees Fahrenheit or two to three weeks before the average first frost date. In the northern half of the bermudagrass belt (North Texas, Oklahoma, Arkansas, Tennessee, North Carolina, and the northern regions of Mississippi, Alabama, and Georgia) this date would be October 1-15. In the southern half of the zone the optimum date would be October 15-November 1, and in southern extremes of Texas and Florida, November 1-November 15.

Seeding rate is also important to establishing a fast, dense cover of overseeded grasses. Perennial ryegrasses should be planted at ten to 20 pounds of pure live seed per 1,000 square feet.

Maintenance Practices

Mowing, watering, fertilization, and pest management are all critical to the

successful establishment of newly overseeded winter grasses. Mistakes or poor judgement with any of these practices can lead to poor stands of winter grasses. It is absolutely necessary to keep the mower razor sharp during this period to prevent pulling up the young seedlings.

Newly overseeded sites should not be kept wet and should not be allowed to become excessively dry. Close attention to watering is important for the first several weeks after planting to establish the grass and provide playable conditions. Avoid late evening watering that keeps grass moist all night. Diseases can develop and spread rapidly when grass remains moist overnight, especially *Pythium*.

Fertilize overseeded sites with a complete fertilizer such as 12-4-8 at about one pound of nitrogen per 1,000 square feet. Apply fertilizer immediately after seeding so as not to burn the young seedlings. After seedlings emerge, light applications of nitrogen will help produce a dense, healthy stand of grass. Soluble nitrogen sources, such

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as urea or ammonia sulfate, can be applied most effectively as a foliar spray at rates not exceeding 1/2 pound of nitrogen per 1,000 square feet per week. Nitrogen sources with a low burn potential, such as Nutraléne, IBDU, or Milorganite, can be applied in dry applications at rates between 1/2 and one pound of nitrogen per 1,000 square feet. Very low rates of soluble nitrogen, such as two to four ounces per 1,000 square feet, can be applied as a foliar spray.

Seedling diseases such as *Pythium* and brown patch must be controlled to maintain a thick, healthy stand of winter grasses. Application of a preplant fungicide and the use of treated seed will go a long way toward producing a disease-free turf. Diseases are much more effectively controlled on a preventative rather than a curative basis. Once a disease becomes a problem it can set overseeded grasses back several weeks. Strict attention must be given to spray schedules for disease prevention for the first several weeks after planting.

Broadleaved weeds such as lawn burweed, chickweed, and clover can be controlled after winter grasses are established. Products such as Trimec, Weedone DPC, Turflon II Amine, and Confront can be used if label directions are followed.

Set up a Schedule

It is important to develop an overseeding schedule well in advance of planting time. A suggested program might include the following.

1. Select the grass seed: Measure overseeded sites to determine the quantity of seed needed. Decide on a variety or mixture and order seed in midsummer.
2. Prepare the seedbed: Set up a vertical mowing schedule during midsummer. Aerate in late summer. Topdress (prepare topdressing material ahead of time).
3. Seed the site: Determine seeding rate (calibrate spreaders). Determine seeding date.
4. Set up a watering schedule during and after seedling emergence.

5. Fertilize before and after seeding.
6. Mow the site: Determine appropriate height. Determine appropriate frequency.

The most common causes of failure include (1) poor seedbed preparation, (2) planting too early or too late, (3) seedling diseases, (4) herbicide injury (pre- and postmerge), (5) overwatering and excessive rain, (6) fertilizer burn, and (7) mowing with dull mowers. □

Richard L. Duble is a professor and extension turfgrass specialist at Texas A&M University. The above article is an abbreviated version of a section titled "Overseeding Bermudagrass Turf" from the second edition of his book Turfgrasses: Their Management and Use in the Southern Zone (College Station: Texas A&M University Press, 1996); for more information or to order call (800) 826-8911. The staff of sportsTURF wishes to thank Jim Puhalla of Sportscape International for his assistance in editing this article.

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Ridgewood High Grows Grade-A Gridiron

By Bob Tracinski

High school football fields often become the focus of their schools' outdoor events. In Ridgewood, NJ, the football field hosts fall football games for the freshman, junior varsity and varsity teams for approximately 18 home games in eight weeks. All three teams have one practice session on the field each week. There also are weekly band practices and performances.

The first week of April marks the start of the lacrosse season. Mid June marks the Junior Olympics. Graduation, naturally on the field, hits in the third week of June.

Keeping this field in safe, playable condition with this packed schedule is tough when conditions are ideal. But lack of rainfall during the summer of 1995 forced an outdoor water-use ban that began on June 15 and lasted into early September.

Not only did Bob Buono, grounds manager for Marriott School Services, and his crew keep the football field playable, they brought it to award-winning status, earning STMA's 1995-1996 Football Field of the Year Award.

Nurturing a Native

Marriott School Services, a division of Marriott Management Services, provides dining, nutrition education and facilities management to more than 330 US school districts. Marriott spokesperson, Kathy Boyle, says, "School districts have the mission of educating children. Marriott wants to handle all the other services."

And Buono and crew have lots to handle. The Ridgewood School District has 12 other fields, making a total of 28 acres of athletic turf under their care. They also

maintain the 20 acres of outside grounds for the district's ten schools and one professional building, as well as the 35 acres of paved surfaces consisting of tennis courts, outdoor basketball courts and parking areas. In their "spare time," they also are responsible for moving all gymnastic and sports equipment from school to school throughout the year. This includes seasonal movement, such as the football field goal posts, and day-to-day movement, such as the "dummies" used for football practices.

Buono oversees the entire maintenance program, consulting with Paul Carstens, director of buildings and grounds for Marriott at Ridgewood, his immediate supervisor, and with the school's director of athletics and physical education to coordinate the scheduling of events. Maintenance procedures must be slotted around these field-use schedules.

Carstens says, "The Football Field of the Year Award is the culmination of the outstanding efforts of Bob Buono and his crew to improve the athletic facilities and grounds of the Ridgewood schools."

It's obviously a team effort, and Buono is quick to credit his crew. He says, "My crew does an excellent job. Foreman Michael Lannin is focused on providing top quality maintenance for the district. He handles all the field lining, oversees daily operations and interacts with the director of athletics. Crew member William Hunt assists with field lining, handles much of the mowing and assists with set up of all events.

"Peter Catania, head custodian at the high school, and his staff also do an outstanding job. Their cooperation and assistance with the set up of functions help it all flow smoothly."



From left to right, William Hunt, Michael Lannin and Bob Buono display a recent cost-effective investment. Photo courtesy: Bob Buono.

The mutual respect between the Marriott staff and school district personnel is obvious. Tom Burgin, secretary of the Ridgewood School Board, says, "We're very proud of Bob Buono and his crew."

Buono joined the Marriott operation two years ago. Prior to that, he'd worked for a fertilizer and equipment distributor, for a major lawn and landscape maintenance firm, and owned and operated his own business in the landscape industry. He's completed several college horticulture courses and the Rutgers Athletic Field Maintenance and Construction Course.

Buono "thrives on challenge" and "appreciates the before and after aspect" of sports turf management. He credits his parents for instilling in him a "hard work philosophy" and "good business sense." Armed with all this, and the support of his wife, Renee, the Marriott position offered him a challenge to savor.

All of the Ridgewood athletic fields are native soil. Buono says, "The football field was reconstructed 12 years ago and has excellent underground drainage. I began integrating more turf-type tall fescue into the turf mix when I came on board here. The present ratio is 80 percent fescue and ten percent each bluegrass and perennial ryegrass. We need a tough turf that can stand up to the heavy field use and our weather extremes. Last summer's extended stretch of high temperatures and sparse precipitation would wipe out most other cool-season grasses."

Aggressive Maintenance

Heavy use on native soil fields means compaction is a constant challenge. Wear, especially along the sidelines, presents another challenge. Buono counteracts all this with an aggressive maintenance program.