



Groundskeeper in Paradise (Part II)

Getting a New Bermudagrass Field Established and Football-Ready in 3 Months. . .with Grass So Tough It Has the New Mower Grunting!

by George P. Toma

In last month's sportsTURF, George Toma explained that following the Super Bowl last year, he flew to Honolulu as he has done countless times to prepare the fields for the Pro Bowl. Last year, however, Toma stayed in Hawaii until November.

Signing on as a groundskeeping pro with the University of Hawaii, he agreed to supervise the grassing and grow-in of a new football practice field and a new women's soccer field, both sprigged on a 40/60 compost/existing soil (clay silt). His assignment also included upgrading the bermudagrass field at the Women's Softball Stadium, training the maintenance personnel and getting their equipment up to speed, among other things.

I had hoped to start the sprigging by mid-February. Because of delays, mostly due to wet weather, March 10 became our 'grassing' date. After the surface was scarified to a depth of 2 or 3 inches, five days of sprigging got underway.

For starters, we had put down Lesco's 10-20-20 starter fertilizer at 225 lbs. per acre. Whether seeding, sodding, or sprigging, I also like Scott's STEP micro package applied at about 100 lbs. per acre. These fertilizers were worked into the soil and watered for a couple of days, along with 260 lbs. per acre of 21-0-8 spiked with Ronstar. This provided about 2.5 lbs. active per acre, which is lighter than the label rate.

The sprigging and hydromulching were sub-contracted to The King's Landscape Co. of Honolulu. They purchased the Tif 419 stolens from Maui Sod at a cost of slightly more than \$30,000. We got terrific, high-quality stolens, great service and then some. The sprigs we needed were harvested



An ideal backdrop for a worksite. Photos courtesy Hal Dickey

on Maui each evening and flown over the next morning on Aloha Airlines' first flight.

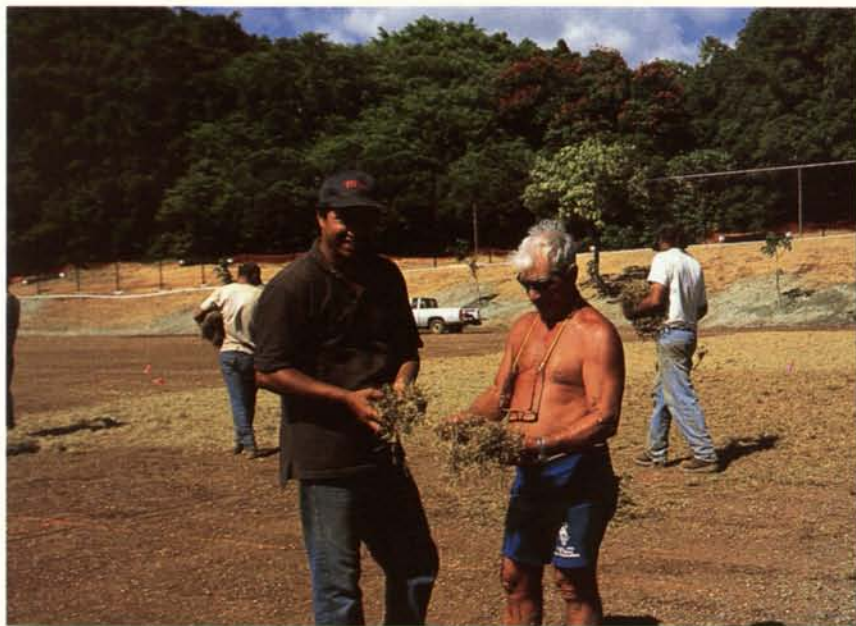
The sprigs were distributed over the football field by hand. Then they were pressed into the soil by a locally built tow-behind disk. As soon as each section was sprigged and disked, it was "hydrocapped." The tank on the hydromulch truck contained not only newsprint and tackifier but also half of the 10-20-20 starter. The other half, 2 1/2 lbs. per 1,000 square feet, had been spread a couple of days earlier. Also, we used Gordon's Launch, a new biostimulant mixture with a liquid manure base, added to the mulch solution at the rate of one quart per 1,000 square feet. My son Chip and I have used Bov-A-Mura, Gordon's sprayable manure product for years. I really didn't expect to see much difference from the cytokinins and the humic and fulvic acids in the biostimulant.

Biostimulant Check Plots

We made four grow-in applications

of Launch on the football field, starting at sprigging on March 10, then on April 5, April 27 and May 19. In order to compare turf coverage and root depths, I included an untreated plot at each end of the football field (also at the soccer field, starting a couple of weeks later). I measured off 4-by-8-foot plots and drove a wooden stake in each corner flush with the ground. With a tin can lid nailed to the top of each stake, the plots were easy to find and cover with a sheet of plywood each time the biostimulant was being sprayed. This included the first time, in the mulch at sprigging.

Within a week, the sprigs sprayed with the Launch had runners twice as long as those we didn't spray. After two weeks, the runners averaged 3 inches long versus less than 1 inch for the untreated sprigs. By March 31, the three-week-old runners were averaging 6 inches! Three to 4 inches were about the most we had expected to see, so we were really impressed.



Toma inspects the developing turf

I estimated the turf coverage of the two untreated plots at about 35 percent versus an incredible 80 per-

cent for the rest of the field. My judgment was seconded by the architect's consultant, Logan Homacon, well

acquainted with Tif 419, particularly in golf course situations. Looking at the three week old field he said, "Almost anyone would guess that this grass is seven or eight weeks old."

Game-Ready at 6 Weeks?

By the end of the sixth week, the football field could have handled a game.

Checking the root growth of the untreated plots made me really respect the biostimulant. After 6 weeks, the grass had 6-inch roots, except in the check plots where the roots averaged only 1 1/2 inches. Without the Launch, this field could have been a disappointment or at least a lot more of a challenge. The baby grass had been pushed with fertilizer about as much as could be safely done. It got two or three granular feedings monthly supplying a total of around three pounds of actual N per month.

When the field was 8 weeks old, the athletic directors and coaches



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found on grass plants growing over the sand drains [4 in. x 12 in. sand-filled drainage grooves spaced 10 ft. apart running lengthwise down the football field].

By the eleventh week, the football field looked its best so far. But it was time to aerate. We used the Vertidrain one-inch tines, punching to a depth of 12 inches on four-inch centers. In my opinion, the worst thing you can do to grass is mow it with a dull mower, and the next worse is aeration. After aerating, we sprayed Gordon's Focus, a straight biostimulant (no liquid manure like there is in Launch). We made the first application on May 30th, and applied it again in mid-June. The upper field had to be playable by June 19th for a football camp.

came out for a close-up look. Head football coach June Jones said it looked as smooth as a pool table and commented that he had never seen

grass in better condition. We dug several samples for them and came up with 6 or 7 inches of roots each time. Earlier, roots over 8 inches long were

Attractive Grass, and Tough!

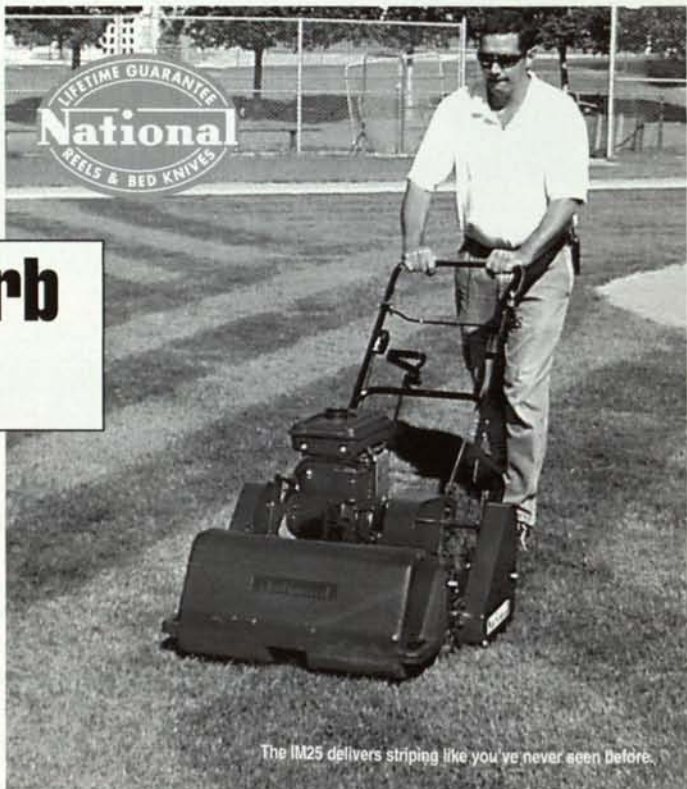
Within four or five days everyone who saw it was commenting on the terrific response of the 419. The grass came back so dark green and thick it



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was applied every 4 to 6 weeks; the rate was varied to supply 1 to 2 lbs. actual potash. I also made one app of White Gold 0-0-24, a slow-release calcium-sulfur-potash from Magic Green fertilizers. Other things being equal, when you're talking sports turf, I say the tougher the better.

The University of Hawaii Warriors began practicing August 18th putting 125 players on the field.

The soccer field went into service in August, too. The U. of H. home games are played in the stadium at the Honolulu soccer park, a new 20-field complex near the airport. Visiting women's teams from Tulsa, Arkansas, Northern Arizona, Wyoming, Boise State, Loyola-Marymont, and Oregon State practiced on the new soccer field on campus. Players and coaches were very complimentary and wanted to know how we did it. Many said they wished they had a field of this caliber back home.

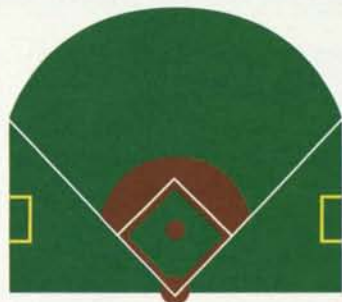
looked like velvet. It was not only unusually dense, but also tough. I mean exceptionally tough. It had our new five-reel, 8-bladed Toro Reelmaster 5200T grunting!

I've been high on potash for tough tissue in grass plants. Lesco's 0-0-50

This grass was plenty tough, and a good thing it was, too. Two weeks of football camp began June 19th. The field was ready—and then some. It got used daily from 9 to 3 p.m. by about 500 young players over all. The first week was for 8 to 13-year-olds; then a week for high school seniors, including many from the mainland.

V.I.P.s on Softball Field

The U. of H. women's softball field, in a stadium that seats 1,200, shaped up very well. It was used in late summer by some V.I.P. visitors. The U.S. softball women's team spent 10 days and played six games here en route to the Summer Olympics in Australia. Besides the University of Hawaii



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women's team, a Hawaiian women's all pro team and the Hawaii Pacific University women's team all helped warm up the national team which went on to Sydney where they won the Gold!

The softball field became infested with purple nutsedge. Manage herbicide cleaned it up beautifully with two applications. The new fields also had some crabgrass pressure during the first month of grow in but we sprayed Trimec Plus, with one application controlling it in the football field and two in soccer.

The two new fields held up well in spite of a punishing schedule. You'd see kickers practicing from the 40 yard line down to the end zone, while the band used the rest of the football field and drill area to practice their marching routines. When football or soccer players weren't on their fields, they would be switched to cross country-running layouts or used for softball

team drills, cheer leaders, women's track, etc.

We thought aeration might be needed as often as once a month. Through October, we aerated about every other month and experienced no compaction or drainage problems.

Besides the 1-inch diameter 16-inch-long tines, the Vertidrain 7516 attachments included the quarter-inch and half-inch tine clusters. The aerator attached via a 3-point hitch and PTO to a Kubota 49 horsepower diesel tractor with high flotation tires. The Turfco Mete-R-Matic III topdresser with 22.5 cubic ft. capacity was a tow-behind model.

The football field was topdressed with a quarter-inch of topdressing, most times after aeration. We used the 40-60 compost/soil mix the first two times and silica sand thereafter. This is the good sand used by top golf courses and a couple of schools here with athletic programs that get good

financial support.

A rootzone mix of 75 percent Australian sand, 15 percent peat and 10 percent native soil will be used for a new grass field being built at a very large and well respected school. Called Kamehameha, it was founded and endowed by a royal princess in 1895. The new stadium for football, soccer and track at their Honolulu high school is being done by PBR-Hawaii, a firm with an impressive track record. Stan Duncan, the landscape architect in charge, told me the Tif 419 field will be sprigged next February and given biostimulants like we used at the university.

Quality: Keeping It Up

I hope the U. of H. sports field maintenance budget for future years will provide for adequate amounts of the good topdressing sand. A verticutter is something else that was badly needed to cope with the turf's vigor and maintain a safe, quality

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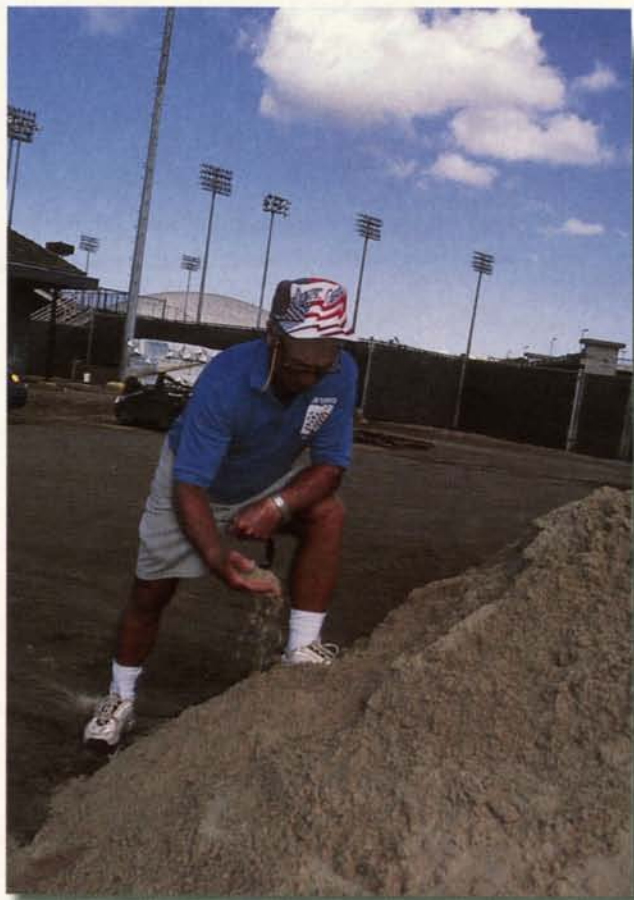
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Toma studies the Australian sand that will comprise 75 percent of the rootzone mix

many rooster-tails; after aeration, bermudagrass surged up out of the holes.

We had to cut the grass at 3/4 in. instead of 1/2 in. and had a fluffy surface that could interfere with the players' footing. With a verticutter, these problems would be avoided or at least reduced. The same would be true with heavy thatch. Coach Jones became personally interested in this and, before I left, he told me that the paper work for this new machine was being expedited.

Now that U. of Hawaii has these grass fields, maintaining them in good condition depends on having the right equipment and supplies. Otherwise, they will go downhill. To all who ask me how to succeed as a professional groundskeeper I say: Think safety, think maintenance, and try to familiarize the budget people with what it takes to maintain a safe and superior playing field. Why? To protect their investment.

The University of Hawaii has spent a lot of money building these fields and setting up a professional-level grounds care program. They have new and better equipment and a well-trained crew. I hope to see them all join the Sports Turf Managers Association. As STMA members they can continue to gain knowledge and pride in their profession. I congratulate the administration and coaches for their vision and courage, and I feel honored to have been on their team.

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