4. Check condition of spray hoses. Tighten all hose connections securely.
5. Lubricate boom pivot grease fittings and pivot points.

Follow other recommendations specified in your owner's manual.

The above comes from the Fall 1996 issue of A Patch of Green, the official publication of the greater Detroit Golf Course Superintendents Association.

If you have a tip to share, send it to sportsTURF, 68860 Perez Rd., Cathedral City, CA 92234.
November 17-18

November 17-20

November 18
GCSAA seminar: "Advanced Weed Management." Myrtle Beach, S.C. Contact: see first entry, above.

November 18
University of California's Statewide Integrated Pest Management Project is conducting a series of "train-the-trainer" workshops (in both English and Spanish) for persons employed in agriculture. $100 registration fee. November 19 in Spanish. Pomona, Calif. Contact: Diane Clark. Phone: (916) 752-5273. E-mail: diane.clark@email.ipm.ucdavis.edu. Web site: http://www.ipm.ucdavis.edu.

November 18
Pesticide Applicators Professional Association (PAPA) Seminar. Visalia, Calif. Contact: PAPA. Phone: (408) 442-3536.

November 18

November 18
GCSAA seminar: "Lake and Aquatic Plant Management." San Marcos, Calif. Contact: see first entry, above.

November 18-19
GCSAA seminar: "Golf Greens: History, Theory, Construction and Maintenance." Garden City, N.Y. Contact: see first entry, above.

November 18-20
Midwest Regional Turf Foundation's Turfgrass and Ornamental Seminar. Lafayette, Ind. Contact: Bev Bratton. Phone: (765) 494-8039 or (317) 494-8039.

November 18-20

November 19
Pesticide Applicators Seminar. Sacramento, Calif. Contact: PAPA. Phone: (408) 442-3536.

November 20
GCSAA seminar: "Employee Safety
November 20
Integrated Pest Management: Landscaping for the '90s. Toms River, N.J. Phone: (732) 349-1246.

November 20-21
GCSAA seminar: "Managing People for Peak Performance and Job Satisfaction." Orlando, Fla. Contact: see first entry, above.

November 21
GCSAA seminar: "Irrigation System Operation and Principles of Design." Centerville, Ohio. Contact: see first entry, above.

December 2
Pesticide Applicators Seminar. Ventura, Calif. Contact: PAPA. Phone: (408) 442-3536.

December 2-3
GCSAA seminar: "The Assistant Superintendent: Managing People and Jobs." Lincoln, Neb. Contact: see first entry, above.

December 3
Cook College in New Jersey offers "Pest Management of Ornamental Landscape Plants," a short course for landscape professionals and pesticide applicators. Pesticide recertification credits are approved by the NJDEP; and in New York and Pennsylvania. Fee: $115. Contact: Susan Hack. Phone: (732) 932-8451.

December 3-4
GCSAA seminar: "Managing People for Peak Performance and Job Satisfaction." Eliccott City, Md. Contact: see first entry, above.

December 4
Cook College in New Jersey offers "Pest Management of Ornamental Landscape Plants." See December 3 entry, above.

December 4
GCSAA seminar: "Improving Your Negotiating Skills." Jacksonville, Fla. Contact: see first entry, above.

December 5
Fifth Annual City of Yuma Sports Turf & Equipment Field Day. Yuma, Ariz. Contact: Larry Munoz: (520) 329-2824.

December 5
GCSAA seminar: "Human Resource Management." Des Moines, Iowa. Contact: see first entry, above.

December 5
GCSAA seminar: "Irrigation Water Quality." Sacramento, Calif. Contact: see first entry, above.

December 5
Cook College in New Jersey offers "Pest Management of Ornamental Landscape Plants." See December 3 entry, above.
**Biostimulant Premix Introduced**

Plant Health Care Inc.’s Flexx is a dry, water-soluble biostimulant premix that reduces stress, stimulates root growth and corrects nutrient deficiencies. Flexx is a three-in-one package with fully chelated micronutrients, biostimulants and beneficial bacteria, and a Yucca-extract wetting agent. Packaged for easy use, Flexx speeds turf recovery from traffic and disease damage, improves turf density and durability, and increases rooting depth to create optimal playing conditions on sports field turfgrass.

Flex is available in premeasured open-and-pour bags, which can be added directly to the spray or injection tank.

**Zeke’s Coats of Many Colors**

For striping and marking grass fields, Zeke’s Athletic Paint offers Zap Pro, which comes in white, plus other colors. The paint is available in quantity pricing and is being used at all levels of play — professional, college, high school, parks and recreation departments, and soccer, football and baseball leagues.

The company also carries strippers, aerosol spray paint, and fluorescent paint for goal posts.

**Blade Corrected 40 Times a Second**

Southern Laser’s Grademaster is a laser-controlled system that maintains accuracy to within one-quarter of an inch. The unit consists of a heavy-duty box blade scraper and laser-leveling system.

A laser beacon, mounted on a tripod, provides a continuous 360-degree plane of laser light at a level, single, or dual grade. A 360-degree sensor, mounted on the box blade, detects the laser light with precision accuracy. The sensor has five channels to display “on grade,” “near grade,” “off grade” and sends a signal to a two-stage hydraulic system that controls the elevation of the blade.

The hydraulic system is controlled by a computerized two-stage valve that makes blade corrections up to 40 times per second.

**Biological Nematicide Approved**

Abbott Laboratory’s DiTera WDG biological nematicide has been registered with the U.S. EPA for use on turfgrass.

DiTera WDG is a fermentation product based upon a naturally occurring microorganism, which was originally isolated from a cyst nematode. It is effective against a number of plant-infecting nematode species, including sting, lance, ring, root-knot and stubby root.

DiTera WDG has no pre-plant or post-plant restrictions. It kills adult and juvenile plant nematodes on contact. It can also inhibit hatching and development of nematode eggs, modify the behavioral orientation of nematodes to plant roots and alter the plant’s rhizosphere microbiology.

**Poly Plus Fertilizer Saves**

Lesco fertilizers feature Poly Plus sulfur-coated urea. Poly Plus fertilizers release plant nutrients over an extended period of time, enabling the operator to make fewer applications at a higher rate, saving time and labor. Poly Plus treated turf has a more consistent growth rate, which reduces mowing requirements and the need to collect clippings.

The Grademaster is available in five through eight-inch models.

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I certify that the statements made by me above are correct and complete.
Colleen Murphy, Publisher

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Positions available in the North East
Growing Turf in Paradise

By Alan Goforth

The very thought of artificial turf in Honolulu’s Aloha Stadium borders on heresy for sports turf professionals. How did a stadium located in a tropical paradise wind up without grass?

“Aloha Stadium was being constructed when I first arrived in Hawaii,” says Dr. Charles Murdoch, retired professor of horticulture at the University of Hawaii and state turf specialist. “At first I was appalled at the thought of artificial turf being used, especially because of the national television exposure with the Hula Bowl and Pro Bowl,” he continues. “But the stadium is home to many events, everything from college and high school football to motor sports and concerts. Because of heavy, year-round wear and tear, I realize now that artificial turf was probably the right choice.”

If Murdoch has learned one lesson in his 25 years in the islands, it’s that, while Hawaii may be a vacationer’s dream, it can often pose nightmares for groundskeepers. The year-round growing season is a mixed blessing. On one hand, groundskeepers don’t have to worry about winter kill, snow mold or other problems common to the mainland. On the other hand, it’s a 365-day season for insects and weeds as well as grass.

Daily turf maintenance takes a heavy toll on equipment. Groundskeepers don’t have an off-season to tinker with equipment. Murdoch points out, and equipment companies often run short on parts because of high storage costs.

The bottom line is that successful turf production is not necessarily easier or more difficult than on the mainland, but it is different. Success often comes down to coming up with creative solutions to unusual challenges.

Creating a Sand Base Solution

An unusual challenge is exactly what Honolulu’s Punahau School faced in the late 1970s when the exclusive private school received a donation to build a new athletic complex. Punahau wanted to use natural turf, but had the same problem as many high schools in Hawaii— heavy clay soils with poor drainage. School officials turned to Murdoch for help.

“The field was a quagmire,” he recalls. “It obviously needed a sand base for adequate drainage. Our biggest problem is that we had no local deposits of silica sand. Some schools were using regular beach sand, but it has a high pH and is not very effective.”

Murdoch scoured the island for an effective alternative and found a local cement company that made sand by crushing basalt. First, drainage pipes were laid 15 inches apart. Then a rootzone of ten-to-one ratio of basaltic sand to soil was created. “We made it like a USGA putting green, with drainage tile then the rootzone mix,” Murdoch says.

The field was seeded with common bermudagrass, a popular all-around grass for sports turf in Hawaii. “Our grasses in Hawaii are similar to those of the southern part of the mainland,” Murdoch says.

The field has stood up well to almost 20 years of football followed by soccer and field hockey. Upkeep is minimal. The field is fertilized with a slow-release 4-1-2 turf fertilizer, and one pound of nitrogen is applied each month. Hawaii has few disease problems, so no fungicides are required. Insecticides are sprayed as needed.

Although most schools on the islands would benefit from similar field construction, he adds that few can afford it. One private high school recently installed a basaltic-rock sand base for its baseball infield.

Murdoch looks back at his work with Punahau School as one of the highlights of his career in Hawaii and believes that effective, creative groundskeepers will always be in demand in the islands.

“With the decline in traditional plantation agriculture, turf is likely the largest agriculture business in the state,” Murdoch says. “Many Hawaiians believe their economic future is linked to tourism, and that means a demand for high-quality turf, from sports facilities to landscaping to golf courses.”

If you have a story or anecdote you would like to share, call (562) 425-2449 or write it down (include your name and phone number) and mail it to Ashman & Associates, 3164 North Greenbrier Road, Long Beach, CA 90808.
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