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# CHEMICAL LOG

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## Mechanical/Chemical Strategy Cuts Costs

In a move to meet tight budgets while tackling an increased athletic turf maintenance workload, Pasco County Horticulturist Mitch Boyle has developed a strategy that's helping trim tens of thousands of dollars from his maintenance costs.

In addition to his duties managing athletic fields at 14 park sites throughout Pasco County, FL, Boyle also serves as the county's aquatic weed manager. Money saved as a result of Boyle's turf strategy is vital to meeting the costs of his other responsibilities, he says.

In providing an overview of his approach to turf care, Boyle explains that agronomic schedules for each park are slightly different. Those differences rest on specific growing conditions, which vary from one end of the county to the other. The facilities he oversees include 35 full-size soccer fields, 37 Little League fields, and 11 softball fields. In total, Boyle's crew cares for 180 acres of hybrid Bermuda 419, with 20 more acres under development.

One of Boyle's primary goals for 1994 is to save money on turf management by using a new pest control strategy he developed during the past year. In 1993, Boyle managed the Bermuda turf at a total cost of \$740 per acre. His goal for 1994 is to trim that to less than \$700, and put the money saved to work in a habitat restoration project on the gulf coast. The savings from the turf program are being used to purchase Rodeo® herbicide and other products for use in a Brazilian pepper eradication program along several miles of coastline park sites.

In caring for the athletic turf, Boyle plans to cut costs by controlling fungus mechanically, while emphasizing use of cost-effective herbicides to keep weeds in check and reduce maintenance costs. "We spent up to \$100 per acre to apply fungicides," he explains. "By following a regular schedule of power raking, ver-

ticutting, and aerating twice a year, we'll be able to cut fungus control costs significantly."

During the last three years, Boyle conducted a study on county fungicide applications. By late summer of 1993, his crew had applied fungicides only three times.

"In previous years, we've had to apply many times that amount of fungicide by September," he says. "The mechanical program allowed us to divert approximately \$20,000 in 1992, and \$30,000 in 1993, to other needs."

Boyle believes the mechanical work controls fungus by increasing microbial activity in the turf. To help microbes along, the crew applies Milorganite at a rate of 250 pounds per acre to lightly topdress fields in January, March, and April.

"These light applications of Milorganite help increase microbial activity so grass stays healthy and balanced," says Boyle. "Then we come through with our aeration and power raking, and we don't have an environment that harbors fungus and disease down in the thatch. I've talked this theory over with some of the turf specialists at the university, and they're experimenting on this very same thing."

Another factor in Boyle's success is frequent applications of high-quality fertilizer. The variety selected for Pasco County turf is Par-Ex®.

The first application is in February, using 15-2-5 with a crabgrass control at 350 pounds per acre. In April, 21-2-6 is applied, with an insecticide for mole cricket control, at a rate of 200 pounds per acre. In June, 19-0-10 is applied at 200 pounds per acre, again with a crabgrass control. In August, 15-0-15 goes on at 300 pounds per acre, followed by 10-15-15 in October at 500 pounds per acre.

Rather than relying on fungicides in 1994, aeration and power raking will con-

tinue throughout the year on a monthly basis.

Another change for 1994 will be a switch to Mainstay® for mole cricket control. Previously, Boyle used another insecticide, which he says lost its residual effects under heavy rains last summer. "With Mainstay, we'll have a greater length of control for mole crickets," he says.

During winter, Boyle avoids overseeding with ryegrass, a common practice on many warm-season grass athletic fields. "We've been real lucky so far — I've been able to keep the fields safe and playable all winter long," he says. "It also saves a lot of money as far as mowing."

Boyle also reduces mowing costs through the use of Roundup® herbicide along several thousand feet of athletic field fence line. The product is also applied around trees and along buildings in a narrow strip that leaves room for mowing equipment to pass.

"The savings from Roundup® are significant," says Boyle, who estimates each of the 25 parks sites uses a 2 1/2-gallon jug of the product. "We also do trail maintenance with the herbicide, instead of mowing."

The herbicide also saves a significant amount of trimming time, Boyle notes. Without it, his crew would have to use weed trimmers along miles of fence, twice a week.

"Putting your budget together the year before and trying to live by that budget throughout the year is tough," he concludes. "By concentrating on cost control strategies within our various programs, we're meeting budget requirements and freeing up dollars to improve and expand our programs." □

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