

## BRIEFS



**ANDERSON HEADS SALES OF BUSH HOG'S GOLF COURSE MULCHING MOWER**  
SELMA, Ala. — Jimmy Anderson has been named national turf manager for Bush Hog's golf course products.



Jimmy Anderson

Anderson is responsible for product development of Bush Hog's Mulch Pro TDM-11 golf course mulching mower. Mounted one above the other, the Mulch Pro's blades turn in opposite directions at speeds over 15,000 feet per minute. The lower blade mows the grass and lifts the clippings into the cutting circle. The upper blade cuts the clippings into fragments that are so small they disappear between the blades of grass.

**HUMPHREYS RETURNS TO SCOTTS SOD DIVISION**

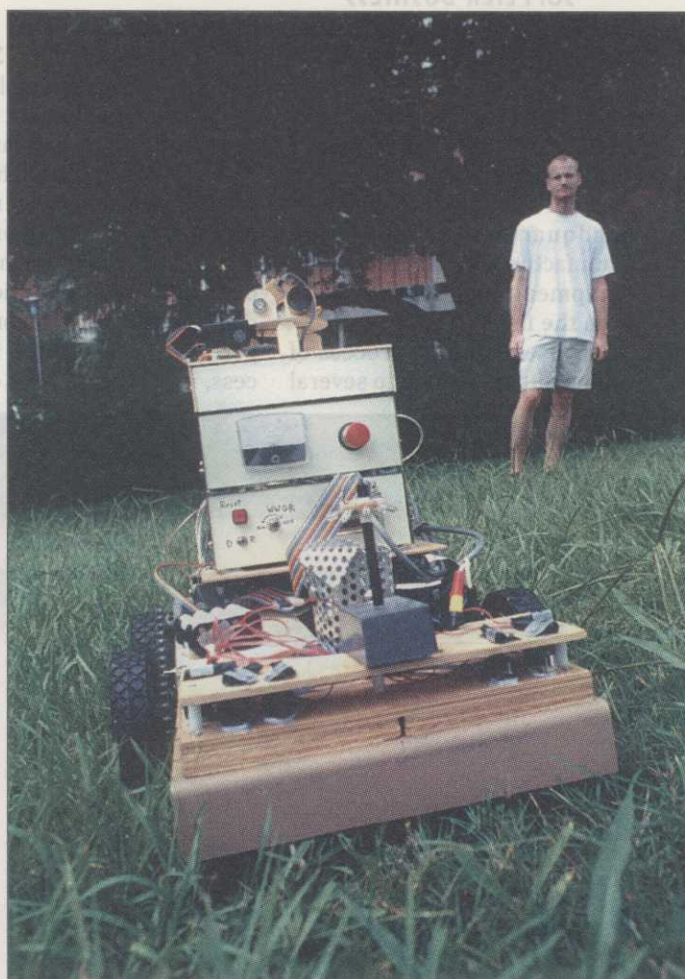
MARYSVILLE, Ohio — The Scotts Co. announced that Larry Humphreys has returned to the company as territory manager, sod grower sales. Humphreys, who has been in the sod industry for 23 years, worked at Scotts until 1995 when he left to join a competitive company. Less than three years later, he returned to team up with Jeff Cain, corporate sales manager, to provide Scotts' technical assistance and sales service to sod growers.

**ZENECA PROFESSIONAL PRODUCTS NAMES NEW T&O SALES LEAD**

WILMINGTON, Del.—Zeneca Professional Products has named Jerid Wendling as territory sales representative for western Florida. Wendling will be responsible for managing sales and distribution of turf and ornamental products, including Reward, Fusilade II, Heritage and Scimitar. Prior to joining Zeneca Professional Products, Wendling held the position of key territory representative for Ciba Crop Protection.

**NEPTUNE ADDS PORTER**

LANSDALE, PA — Neptune Chemical Pump Company, a manufacturer of metering pumps and water treatment equipment, has named Fred Porter as operations manager. Porter is responsible for manufacturing, engineering and facilities management. Previously, he had been with the Milton Roy Company for 16 years, holding positions of production superintendent and plant manager at the flow control division.



LawnNibbler technology could be coming to a maintenance shed near you.

## LawnNibbler acquires taste for golf course turf

By FRED WRIGHT

GAINESVILLE, Fla. — A robot lawn mower called LawnNibbler, created at the University of Florida, may soon be pruning the tees and greens of the neighborhood golf course.

Designed by the university's Machine Intelligence Laboratory, the prototype can cut grass intelligently — avoiding dogs, kids, trees and golfers. It uses a radio wire buried at the perimeter of its work area and a navigation beacon system using sonar and infrared emitters and detectors that tell it where it is in its environment.

The LawnNibbler has four wheels, a chain drive, electric motor and lead acid battery and it works on the principals of a tank: It can turn on a dime — or a divot.

"We've done no engineering to date in terms of en-

durance," explains Keith Doty, director of the lab who designed the original model two years ago, but he estimates the LawnNibbler can run several hours before needing a recharge.

A graduate student, Kevin Hakala, added sensors and a guidance system last year.

The buried wire acts as an obstacle that the LawnNibbler cannot cross. Just 24 inches high, the LawnNibbler is just under 24 inches long and just over 12 inches wide. It weighs 35 pounds.

"The microprocessor control allows it to spin on itself, left, right, back, forward," Doty said. The navigation system uses a trilaterization process, like a Global Position System (GPS) using a satellite, from three poles placed to define the LawnNibbler's territory.

"The game plan is to have a robot dog house — the LawnNibbler would go to the

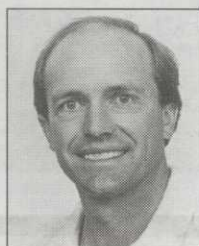
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## Pate dives into equip. distribution

By MICHAEL LEVANS

PENSACOLA, Fla. — Add turf maintenance equipment distribution to the list of Jerry Pate's golf business ventures.

Pate — a TV analyst for CBS Sports, golf course designer, golf course owner and operator, turfgrass grower and ex-PGA Tour player — has purchased Gulf Shores Turf Supply, a 17-year-old wholesale and retail distributor of Toro, Echo and Lawnboy products covering northwest Florida, south Alabama, western Tennessee, Arkansas, Louisiana and Mississippi.



Jerry Pate

Along with equipment sales, Pate said Jerry Pate Turf Supply will offer research services, design and specification of irrigation projects, equipment consulting and continuing education for turf maintenance professionals.

As Gulf Shores, the company reported more than \$25 million a year in sales and employed 90.

With all the other irons in the fire — including his Wausau Farms, a turf farm in Wausau, Fla., one of the exclusive growers of Floradwarf, a hybrid Bermudagrass — why the interest in turf equipment distribution?

"I've always had a love for turfgrass, agronomy and turfgrass management," said Pate. "It all ties together. I've been a customer of Gulf Shores for 20 years, it's a nice size business and its in the town where I live."

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## AgriBioTech to take Zajac, affiliates

LAS VEGAS — Dr. Johnny Thomas, chief executive officer of AgriBioTech, has announced that the company has signed four separate letters of intent to purchase Zajac Performance Seeds Inc. and its Oregon affiliate (Zajac), Ohio Seed Co. (Ohio Seed), Van Dyke Seed Co. Inc. (Van Dyke) and Las Vegas Fertilizer Co. Inc. (LVF).

The four companies have combined annual revenues of approximately \$46 million.

The effective dates for the purchases are Jan. 1 to March 1; consequently, the acquisitions should contribute approximately \$20 million of revenues to AgriBioTech's current fiscal year, ending June 30, 1998.

AgriBioTech is purchasing the four companies for approximately \$15 million in cash and 1,255,000 shares of AgriBioTech common stock with an aggregate value of \$14.6 million

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### NEW PRODUCT OF THE MONTH

ANAHEIM, Calif.—The Taylor-Dunn Manufacturing Co. has entered the outdoor market with the Roadmaster, a new gasoline-powered vehicle. Designated the model R6-80, the Roadmaster is made of 16-gauge Diamond Plate Steel and can carry as much as 1,000 pounds over rough, uneven surfaces. The Roadmaster was designed for situations requiring around-the-clock operation, precluding the use of electric-powered vehicles that need recharging several hours a day. Powered by a quiet, nine-horsepower engine, the Roadmaster has a range of up to 100 miles. The engine meets the strict, low-emissions standards of the California Air Resources Board. For more information, contact Taylor-Dunn at 310-393-0622.



## AgriBioTech/Zajac

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based on prices during the periods of negotiations, which was prior to the recent increases in the company's stock price.

Zajac specializes in providing proprietary turfgrass varieties to independent wholesale distributors under private label, similar to the way AgriBioTech's subsidiary, WL Research Inc., provides wholesale distribution of alfalfa varieties.

All three owners of Zajac, John and Ellen Zajac and Sandy Zajac Pepin, are continuing as employees of AgriBioTech with long-term contracts. The strong management team of Zajac, coupled with its Oregon production operations and strong distribution base, will be complementary to AgriBioTech's existing

turfgrass operations.

Ohio Seed is a distribution company with approximately 60 percent turfgrass seed and 40 percent forage seed, with sales primarily in Ohio and Michigan. Ohio Seed owners Kevin and Harry Keckley are signing long-term employment and consulting agreements, respectively, with AgriBioTech.

Van Dyke is a production company with a wholesale distribution base of a number of forage crops, such as red clover and crimson clover. These operations will complement AgriBioTech's current for-

age operations, providing the company with a good, reliable source of supply for these important forage crops. Terry Lewis and Ron Brandt are signing long-term employment contracts with AgriBioTech.

LVF specializes in the distribution of turfgrass seed and ancillary products to golf courses and lawn and garden products to home improvement centers, mass merchants and independent nurseries in Nevada, California, Utah, Idaho and Wyoming.

AgriBioTech said that this acquisition

will increase its access to golf courses and will give the company experienced management in lawn and garden products which may be expanded to other distribution territories of the company.

The company has completed 16 acquisitions since Jan. 1, 1995.

Its current level of annualized net sales of approximately \$326 million, including the above four acquisitions and the previously announced pending acquisitions of Seed Corp. of America and Discount Farm Center Inc.



## LawnNibbler

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dog house and recharge itself whenever it needed to," explains Doty.

The prototype has been tested in conditions ideal for golf course care — wet grass up to six inches high, on a 12-degree slope, even over tree roots. No problems. The LawnNibbler uses a weed trimmer-like nylon cord to cut a six-inch swath with, not a blade.

With its electric battery, the LawnNibbler hums along at 1 foot per second.

Another goal Doty has for his creation is an ability for it to learn and become smarter in its ability to do its mechanical duty — possibly becoming able to mow an entire golf course without human supervision. "The sky's the limit once you have a computer on board and enough memory," Doty said. "These things will only get better and better."

Doty said the original concept was to have the LawnNibbler simply spit the cut grass back onto the lawn. "Future models could bag it up, but that creates a lot of difficulties — when is the bag full? How to empty it? That could double the cost of the mower."

Doty projects that the initial cost of producing working models of LawnNibbler would place the price at about \$2,000 per unit. "Once it catches on...a bare bones model might cost \$1,500. The enhancements I have in mind could maybe build that up to \$2,000 to \$3,000." The market originally conceived for the LawnNibbler was as a machine to prune the grass around Florida's orange groves.

Doty, who also has his own private robotics company, Mekatronix, to develop, build and retail robotic products, sees this technology as the next wave after personal computers.

"Computers are brains but there's no muscle. Robots add muscle to the brains," he said.

"I'm trying to stimulate the public's interest in autonomous mobile robots. What made the computer business was software. It will be the same thing for robotics — the applications."

Doty suggests that his research lab isn't the first place a robotic lawn mower has been conceived. "The CIA has an autonomous lawnmower," he says, required for sensitive locations where the fewer people hanging around, including yard maintenance workers, the better.

"I understand it's kind of a wooze," he said like a proud parent. "I've got a more manly robot."

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