

form a daily checklist? Are you dogmatic about how often and how thorough maintenance is performed? Are you willing to pull a machine from its days work to take care of its needs, just as a sick employee would not be expected to work?

Common sense tells us not to expect more from something than we are willing to give. Do you feed and bathe your body daily? Do you expect to live in a clean and healthy environment? Why not lavish the same attention on your equipment?

Turf maintenance equipment, by nature, is expensive and sensitive. It's working environment is dusty, dirty, humid, wet or dry, impregnated with chemicals and fertilizers. Subject to constant jolting and vibration, operator inexperience and/or abuse, components eventually loosen and wear. That is why a *daily* checklist is important to follow.

Preventive maintenance and common sense go together. Examine your attitude and learn to respect your equipment. Keep records and make a definite plan for each day's scheduled maintenance. Learn to become a problem-spotter instead of a trouble-shooter in order to prevent breakdowns. Attend factory sponsored service schools and go expecting to learn. Once you've decided to develop a proper preventive maintenance program, carry through and do it. Use your common sense and enjoy the freedom of trouble-free equipment. ■

DAILY CHECKLIST

- Check engine oil
- Check radiator water level
- Check fuel level
- Check transmission/hydraulic oil level
- Check tire pressure
- Clean air filter element
- Lubricate as scheduled
- Inspect hoses, hydraulic lines and fuel lines for wear or leakage
- Inspect for worn, loose, missing or damaged parts
- Inspect screens, shrouds and radiators for grass blockage
- Inspect for loose, dull or damaged rotary blades
- Inspect reel to bedknife adjustment on reel mowers
- Inspect height of cut on reel mowers

CONFERENCE & SHOW October 11-14

The Conference... Jerry Clower, noted country comic and former fertilizer salesman from Yazoo City, Mississippi, will entertain Monday afternoon's attendants.

The conference committee has planned essentially the same format of last year.

FTGA funded research reports will be given Monday morning. The three educational seminars Tuesday will encompass *golf turf, lawn and commercial turf, and principles of turfgrass management.*

The popular three day workshops will cover six subjects instead of four. To do this, three subjects will be presented two days. The third day three different subjects will be covered. Wednesday morning may be given over fully to the exhibits and the workshops.

WE WON'T GIVE AWAY ALL OUR SECRETS, BUT THERE IS A HINT OF A VERY LIVELY GRAND OPENING FOR FTGA '87.

The Show... More has been added to enhance the show this year. This year aisle signs and a carpeted center aisle in the exhibit hall have been added. Once again we promise a top professional presentation of turfgrass exhibitors from all over the country. We won't give away all our secrets, but there is a hint of a very lively grand opening for FTGA '87.

The Special Events... Look for some changes and additions to the social events you have come to expect and look forward to. ■



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WASPS and NEMATODES

Used in Arsenal Against Turf-Chomping Mole Crickets

By Edith Hollander

Biological control may produce an inexpensive and ecologically sound answer to a \$30-million-a-year problem with mole crickets.

Mole crickets damage thousands of acres of private and commercial property throughout Florida each year, destroying root systems and seedlings while feeding and tunneling underground. Spring and summer are their most active seasons.

Scientists with the University of Florida's Institute of Food and Agricultural Sciences (IFAS) are focusing on biocontrol — using the mole crickets' natural enemies to

control the problem.

Biological control of the cricket is the cheapest and most permanent solution, said Dr. J.H. Frank, mole cricket research coordinator with IFAS. Once established, the natural enemy becomes a part of the environment, continuously killing mole crickets and controlling their numbers, Frank said.

However, because of Florida's diverse climate, no one solution will work everywhere in the state. Researchers are working with a number of natural enemies in an effort to address the problem complicated by the different conditions.

"At the present time, insecticides and baits are the best way of controlling mole crickets," said Dr. Don Short, an IFAS entomologist. When used properly, these will provide some control, he said. This is the only method used presently.

Most of the biocontrol research focuses on two natural enemies — a nematode and a parasitic wasp. Because the natural enemies, like the mole crickets, are native to South America, arrangements have been made with South American researchers to provide samples and data.

The nematode research is nearest to completion, with final testing to begin this spring. Nematologist Dr. Grover Smart is trying to determine the best method of introducing the nematode into the environment. Smart is testing two methods — incorporating nematodes instead of poison into mole cricket bait and injecting nematodes directly into the ground with a water injection system. Smart hopes the baits work best as this would produce immediate contact between the two when the mole cricket eats the nematode bait.

The main problem with the nematode is keeping it in a moist environment long enough to ensure contact with the mole crickets. Smart is trying to create a moister bait solution to prolong the nematode's life from 24 hours to 48 hours.

Dr. Fred Bennett, graduate research professor and entomologist, has been working with parasitic wasps, in particular the *Larra bicolor* species. This wasp, which was established through a 1981 Ft. Lauderdale area release, has not yet survived in colder regions of the state.

Bennett will be in Bolivia this spring to study this and other species of parasitic wasps. The wasps have been supplied to Bennett through a cooperative agreement with a researcher in Bolivia. Research has been difficult, however, because of seasonal differences and lab problems. "We hope to get additional strains and species of *Larra* and any other information on mole crickets," he said. "Releases will not happen until we are certain that the organisms won't adversely affect the environment," he adds.

A tachinid fly, various fungal pathogens, viruses and a bombardier beetle are some other hopefuls. ■

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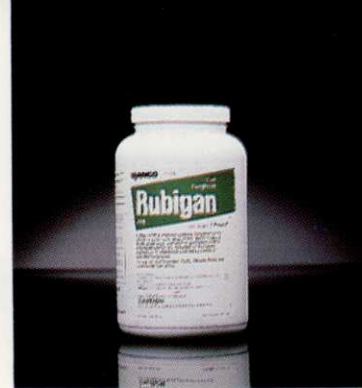
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New Company Takes Over Existing Club in Wellington

By Cheryl Jones

**JAMES BRANSTROM, CGCS,
EXCITED ABOUT NEW OWNERS
PLANS FOR EXPANSION**

A search for the perfect property took several years. It has culminated in Landmark Land Company, Inc., a California-based real-estate development company, purchasing Palm Beach Polo & Country Club — a posh development which has earned an excellent reputation in our country for its top-notch polo facility. The seller was Gould, Inc. of Rolling Meadows, Illinois. The purchase price for this prized property was reported to be in excess of forty million dollars. Palm Beach Polo & Country Club is located in Wellington, a fast growing area in the western part of Palm Beach County.

LANDMARK'S REPUTATION PRECEDED THEM, AND THE OUTLOOK FOR THE FUTURE OF PALM BEACH POLO & C.C. IS BRIGHT INDEED.

Polo is not the only thing that Palm Beach Polo and Country Club does, and does well

In addition to its 11 polo fields, stadium with seating capacity of 10,000, polo clubhouse and stables, its approximately 1650 acres houses a golf clubhouse and two 18-hole golf courses. One was designed by former TPC and U.S. champ Jerry Pate; the other by noted golf course architect George Fazio. The Pate course was opened in December 1984, and the Fazio course a decade earlier.

Tennis is another important facet in this major development. One can lob a ball around on any of the 17 courts and relax afterwards in the tennis clubhouse. For those preferring a less physically strenuous sport there is a championship caliber croquet field which has hosted NCAA and international matches.

The property currently has about 800 homes and condominiums, and some commercial property.

The acquisition of Palm Beach Polo & Country Club is a bit out of the norm for Landmark. As a rule, the company will build its own developments from open land. The only other established property Landmark has purchased is Mission Hills in Rancho Mirage, California. In both cases, the prime location and extraordinary quality of

the existing facilities were strong selling points.

One benefit that came with the purchase is 260 experienced employees. All former Palm Beach Polo employees stayed with the club and are new employees of Landmark. No heads rolling here. 260 experienced people who already know the ups, downs, ins, and outs of the clubhouses, fields, courts, and courses will negate any need for Landmark to bring in and train a new crew. Staff morale is high and optimistic.

When a new company takes the reins, most people wonder what changes will be made. Though polo is the major focus, the golf end of Palm Beach Polo & Country Club will definitely not fall by the wayside. Landmark is already well-known in the world of golf. Several of their high-quality courses have been sites of major tournament play. These include:

- Oak Tree Golf Club in Edmond, Oklahoma, site of the 1984 U.S. Amateur Championship and future site of the 1988 PGA Championship.
- La Quinta Hotel Golf and Tennis Resort in La Quinta, CA., site of the 1985 World of Golf Cup and '86 PGA Cup Professional Championship.
- Mission Hills Country Club Old Course of Rancho Mirage, CA., site of the 1976 World Cup of Golf and the Davis Cup, and annual hot of the Nabisco-Dinah Shore tournament.
- and of course, PGA West of La Quinta, CA., site of the '86, '87 and '88 Skins Game, the '86 PGA Club Professional Championship and '86 Wilson Cup Professional Classic, the '86 PGA Tour Qualifying School, and future site of the 1990 PGA Cup Matches and 1991 Ryder Cup Matches.

Palm Beach Polo & Country Club seems to be headed in this same direction, as they hope to attract tournament play. Golf course Superintendent James Branstrom, CGCS, says he's excited about the possibilities. Landmark's reputation preceded them, and the outlook for the future is bright indeed. According to Branstrom, one of the first things that Landmark did was to increase his operating budget by a whopping 20%. 1987's budget stands at one million dollars. Among other things, this increase will mean some new equipment for Branstrom's department. In the last two years, the former owners understandably did not want to invest a lot of money in property they were going to sell, and now under new ownership these needs will be met.

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(continued from page 44)

Mr. Branstrom has been the superintendent at Palm Beach Polo & Country Club for nearly six years. With the help of assistants John Littrell and Dave Blasiman, and a crew of 28, he maintains approximately 220 acres of land for 400 members. It has been maintained at championship play quality, and one of Branstrom's (and Landmark's) goals is to bring in a major PGA tournament event. The club has already been the site of the Izod International Pro-Am Tournament and the Palm Beach County Ladies Amateur Tournaments, aside from the regular club championships and club-pro tournaments.

One way this may be achieved is the construction of a new golf course! Big changes are in the cards for Palm Beach Polo & Country Club. Noted architect Pete Dye and his son will oversee the construction of 9 new holes and the remodeling of the front-nine of the Fazio course. Scheduled for completion in late spring 1988, the "Dye 18" will bring to 45 the number of playable holes at this time next year. Plans for the Fazio back-nine are to remain the same this season, but who knows what the future will bring? The enthusiasm level is so high at the club that it would not surprise this writer to learn that it will be considered in the near future for major PGA tournament play. Stay tuned . . .

The golf course maintenance department will be controlled locally by a golf committee consisting of Landmark Corporation of Florida's President Chris Cole and Palm Beach Polo & Country Club executive vice-presidents Steve Braley and John McClure. Between new construction, reconstruction, and daily maintenance, Palm Beach Polo & Country Club will be a busy and exciting place to be this coming year . . . one that James Branstrom, CGCS, and his staff are eagerly looking forward to. Look for BIG things to happen in the future at Palm Beach Polo & Country Club! ■

Lofts Establishes Pro Turf Division

Bound Brook, NJ — Lofts Seed Inc., world's largest marketer of turfgrass seed, has formed a specialized division expressly to serve turf professionals.

Lofts' Professional Turf Division is headed by Dr. Richard Hurley, Lofts Director of Research and John Morrissey, Executive Vice President, and backed by a staff of professionals. Their combined experience in the turf industry totals more than 150 years.

As experienced turf professionals, the members of Lofts' Professional Turf Division are available to assist people in the turf industry in attaining maximum turf results. As an example, they'll help choose the most appropriate varieties for troublesome areas or provide the technical support needed to solve complicated turf problems.

More can be learned about Lofts Professional Turf Division by contacting Lofts Seed Inc., Bound Brook, NJ 08805, (201) 356-8700 or (800) 526-3890. ■



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Fast Weather Service: A MANAGEMENT TOOL

By Michael Cade

AVON PARK — Bob Barben studied the weather map on a computer screen in his office at Avon Park. He could see that within two hours a heavy rain storm would hit his citrus grove at De Soto City where his oldest son Bobby, was about to apply fertilizer.

Barben called Bobby on the radio and told him to wait. He saved \$3,000 that day and about 20 tons of fertilizer that would have been washed away.

Keeping fertilizers, pesticides and herbicides out of Florida's lakes and streams is but one way growers use satellite weather imagery. The imagery now all comes from one GOES satellite, but, another GOES is scheduled for launch at Cape Kennedy. GOES stands for Geostationary Operational Environmental Satellite.

Florida growers receive GOES imagery and National Weather Service data through Florida Agricultural Service and Technology Inc. in Alachua, Fla.

Dr. John Gerber, who helped develop FAST, demonstrated the weather forecasting system at the Florida Agribusiness Computer Short Course and Trade Show Feb. 27-28 on the University of Florida campus.

Gerber, a climatologist with the Institute of Food and Agricultural Sciences, said farmers who develop their own weather forecasts have an extra edge in making daily management decisions.

"A forecast might say chances of rain today are 60 percent," Gerber said. "What it doesn't say is when that 60 percent is likely to occur. It may be the chances of rain before lunch are zero and after lunch are 60 percent.

"Maybe you need a window of four to six hours to apply a herbicide in order for it to be effective," Gerber said. "With satellite imagery, you can find thunderstorms, see where they're developing and watch their movement."

Television forecasts are general and can't make predictions for specific farms, Gerber said. But with FAST, agricultural managers can better answer the question, "What's going to happen right here?"

FAST, a non-profit company, grew out of a NASA-funded technology transfer project at the University of Florida, Gerber said. Farmers first used the technology experimentally in 1983. FAST now has its own CYBER computer and is governed by a board of private agricultural businessmen.

SUPERINTENDENTS WHO DEVELOP THEIR OWN WEATHER FORECASTS HAVE AN EXTRA EDGE IN MAKING DAILY MANAGEMENT DECISIONS ON FERTILIZER & PESTICIDES.

Barben, chairman of the board, said FAST has about 90 subscribers. About 35 are heavy users and two to three new firms are joining each month.

"Each of us use the thing in a different way," Barben said. "The other night I was carefully watching the temperature because we wanted to turn on our microjets before it got to 36 degrees. If it gets down to 32 degrees, they'll freeze up.

"But it's not just for freezes," Barben said. "Those of us who grow citrus look at it as another management tool."

Orange-Co. in Lake Hamilton uses all phases of FAST's weather service, from minimum temperature reports to infrared thermal maps, and stores the information on floppy disks.

Mike Twyford, special projects supervisor, said studying the historical record of temperatures throughout the citrus belt during the season helps Orange-Co. decide when and where to buy fruit.

"It gives us a good overall impression of what went on besides what individual grove owners can tell us," he said.

Twyford said the futures market, played hourly, also is heavily dependent on weather.

"Anytime you have information that shows the entire citrus growing region, and given a clear and accurate report of what's going on temperaturewise, that'll help decisions throughout the company whether they be in crop estimates, future prices or whatever," he said.

Ron McLeod of Tropicana Products Inc. in Bradenton said FAST is especially useful to Tropicana's fruit coordinator, who projects the number of loads of fruit that will arrive at Tropicana each day.

(continued from page 46)

"If he knows it's going to rain in a certain area, he knows he's not going to get as many (loads) as projected," McLeod said. So then he can make an adjustment and notify manufacturing that the earlier projection won't be met.

"When there's a freeze forecasted, the zone-by-zone analysis is something we really rely on heavily," McLeod said. "That's something we really enjoy." But while FAST is useful, it's not perfected.

"We do encounter some breakdown," McLeod said. "Just this week, we received a message that it was not operational for a couple of days. Sometimes it can be a little aggravating."

Barben acknowledges that some customers have dropped the service because at times they were unable to get information when they needed it due to telephone transmission problems.

"I don't blame them for getting aggravated," Barben said. "I've been so aggravated, I can't stand it."

"But every few weeks I feel like we've made some progress," Barben said. "Control Data is helping us just any way they can. I think someday we're going to have something we can be proud of."

"We had a piece of equipment to start with that had a big chiller associated with it," Baben said. "Everytime that these people would get a surge on their electrical lines, why it could have put their computers out of business."

Those problems were solved, Barben said, and FAST has since switched from a CYBER 730 mainframe computer to an 830 mainframe that has added safety features.

Barben said that in addition to weather information, FAST will be offering any number of other services in the future. CAMP Inc., an electronic trading service for produce, is using FAST's mainframe computer and a University of Florida data base, now in the experimental stage, is scheduled to be linked to it in nine months to a year.

Then agricultural users will have immediate access to a vast amount of information and research data offered by IFAS, Barben said.

Despite FAST's problems, Barben said the company has a good future.

"We didn't have the money or manpower to market it properly, so we've had to crawl," Barben said. "Farmers are very conservative individuals. A lot of them are just hard-sell."

"We've been taking the people that are movers and shakers and are willing to try something new," Barben said. "I think at some point in the future some of these people are going to be surprised at what it (FAST) can do for their business." ■

Equipment needed for FAST weather service:

- 1) IBM/PC compatible monitor

- 2) Color monitor
- 3) 1200 baud modem for telephone hook up

FAST provides the software.

Cost of using FAST:

Commercial: \$1200 subscription; \$50 a year membership fee.

Farm: \$600 subscription; \$50 a year membership fee.

State: \$1200 subscription; no membership.

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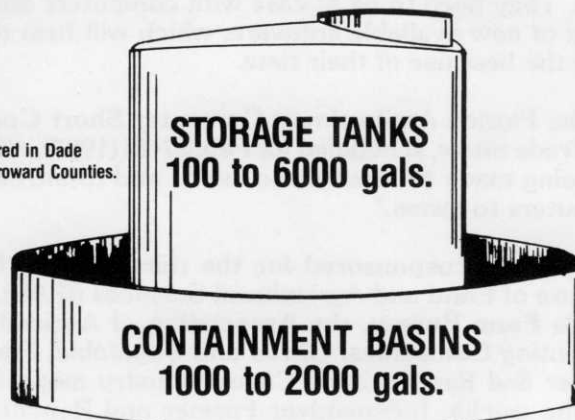
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WOMEN . . .

An Agricultural Asset Not Yet Fully Recognized

By: Catherine C. Elverston

GAINESVILLE — When you think of a family farm, you probably have an image of a man plowing the fields and tending the livestock and while his wife runs the household, tends the dooryard garden, and gathers the eggs.

“Well, not so, nowadays,” says Dr. Christina Gladwin, professor in the University of Florida’s Institute of Food and Agricultural Sciences (IFAS).

“Women spend more hours on the farm than men.”

The current farm crisis threatens to put between 13 and 33 percent of the nation’s farmers out of business, says Gladwin, a small farm management specialist in the IFAS food and resource economics department, and a growing number of farm wives are taking on comanagement of the farms while their husbands seek off-farm work to help sustain sagging incomes.

A recently completed IFAS survey, shows that the average farm wife works a 77-hour week compared to her husband’s 62-hour work week. With modern conveniences, household chores take only 26 hours a week of the wife’s time—50 years ago, it was 50 hours a week. The rest of her time is divided into 22 hours of farming, 17 hours of off-farm work, and 12 hours in the family garden.

“Unfortunately,” says Gladwin, “these women feel isolated from production and marketing information, which their husbands obtain through the traditional network.

“Since generally it is likely to be the women who keep the records, they need this information also.

“Women,” says Gladwin, “need to keep abreast of the times. They need to be at ease with computers and be aware of new available software, which will help them make the best use of their time.

“At the Florida Agribusiness Computer Short Course and Trade Show, scheduled for Feb. 27-28 (1987), efforts are being made to meet these needs and to introduce computers to farms.”


The show is cosponsored for the third year by UF’s Institute of Food and Agricultural Sciences (IFAS), the Florida Farm Bureau, the Association of Agricultural Computing Companies, Citrus and Vegetable, Florida Grower and Rancher, and Citrus Industry magazines, and the weekly Independent Farmer and Rancher. It offers hands-on computer instruction, courtesy of Tandy Randy Radio Shack.

Also, Gladwin says, IFAS offers some 50 software programs, free for the copying to those who bring diskettes—all run on the IBM compatibles and the DEC Rainbow 100. Disks and user manuals can be purchased for a nominal fee.

These programs provide efficient monitoring of such farming techniques as chemical fertilization and pesticide spray calculations.

An aid to bookkeeping is the FARMMGR (Farm Manager Decision Support Budgeting and Financial Statement Analysis) and UFBUD (University of Florida Agricultural Budget Generator). A Citrus Grove Records System program is available as well (for Apple II+ and Apple IIe only).

Tutorials for these programs will be offered at the Computer Short Course. ■



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Food Sufficiency in Africa Depends on Women Farmers

By: J. P. Owusu-Ansah

For the first time, an African country is sending a woman cabinet minister to the University of Florida's Institute of Food and Agricultural Sciences (IFAS).

IFAS experts say the Sept. 17 visit from Cameroon's Minister for Women's Affairs shows that U.S. and African officials are beginning to realize that Africa won't solve its food problems without solving problems for its women farmers.

"Women in Africa perform 60 to 80 percent of the food farming responsibility, sometimes including initial clearing of the land," said Dr. Doris Tichenor, director of the IFAS home economics department, who recently returned from Cameroon.

Cameroon's Aissatou Yaou is coming to the United States in search of programs which can help women farmers and small agricultural producers in her West African nation.

"Women are Africa's primary food producers. They work 10 to 15 hours a day on farming, marketing, cooking, child-care and other domestic labor, compared to seven to eight hours a day by men," added Dr. Anita

Spring, who directs UF's Women in Agriculture Program.

"African women have been in agriculture all the time. By raising the productivity of their agricultural and domestic labor, women can have more time to participate in the lucrative forms of rural economic activity."

In recent years the government of Cameroon has embarked upon projects that aim at improving the conditions of women food producers in the rural areas.

The University of Florida is part of it through a five-year \$16 million contract between the U.S. Agency for International Development and UF's Institute of Food and Agricultural Sciences.

"A major constraint of women food farmers in Africa is the stereotype that farmers are always men," said Spring, who since 1979, has been involved in agricultural programs in several African countries, including Cameroon.

"Women's contributions have been overlooked because they grow food only to feed the family, not to make
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(continued from page 49)

profit," Spring said.

"Consequently, men, who grow commercial crops, have a monopoly over technology, economic resources, and family incomes."

Spring said technology available to women farmers is traditional and not very productive. Women do hand-hoeing to produce the family's food, and often provide a surplus for sale in local market's, she said.

To break the chains of forced dependence on backward technologies, rural Africa women would have to earn substantially more money, Spring said.

Tichenor agreed. "To raise women's agricultural productivity, it would be necessary for women to have the right to land ownership.

"Women should have access to credit facilities, fertilizers, pesticides, improved storage, and field-to-house transportation."

Dr. Elizabeth Bolton, a UF home economics specialist coordinating Madame Yaou's visit, said "African leaders must recognize the strengths and needs of the traditional farming systems on which they have so long relied.

"We hope that Madame Yaou's visit would bring home to local and international agricultural experts that the cheapest and most reliable method of increasing domestic food supply is the improvement and expansion of traditional women's sector." ■

Jacobsen Introduces New Diesel-Powered Greens King® IV

Jacobsen has introduced the industry's first diesel-powered riding triplex greensmower that combines added economy, power, and performance of a diesel with the traditional Greens King® cutting quality.

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The Greens King® Diesel also has full-floating and pivoting cutting units that hug the ground and steer through turns without marking or scuffing the turf. The Jacobsen 9-blade reels have power backlapping as standard equipment for keeping the blades sharp with less effort. An optional variable speed control valve lets the operator select the precise ground speed and frequency of cut for consistent greens while still allowing full speed for transport.

The company's new Turf Groomer® greens conditioner attachment is also available with the Greens King® IV Diesel to promote faster, truer, healthier greens without lowering the cutting height.

An optional electronic Performance Monitor digitally displays the engine speed, ground speed, reel speed and frequency of cut at the touch of a button for a consistent cut from one green to the next.

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The lightweight design and even weight distribution of the Greens King® IV Diesel, combined with smooth, wide pneumatic tires, virtually eliminates compaction and tire marks for a superior finish.

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A wide range of attachments and accessories is available to match individual applications, such as solid and grooved rollers, brushes, spikers and vertical mowers.

Free demonstrations of the new Greens King® IV Diesel with Turf Groomer™ attachment are available through Jacobsen Distributors. ■

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