After looking at our line of irrigation products, the PGA TOUR didn't raise any red flags.

Only this one.



ww

With the 23 Tournament Player properties they own and operate, the PGA TOUR naturally wants their courses to be in the best condition possible. And after using John Deere maintenance equipment for ten years, they were ready to take a look at what John Deere Golf Irrigation could do for them. Suffice to say, they were pleased with what they saw. Innovative, state of the art controllers, rotors, and accessories combined with legendary John Deere quality and service. To see what John Deere Golf Irrigation

EXCLUSIVE GOLF IRRIGATION

SUPPLIER

can do for your course, call your local John Deere distributor or 1-800-537-8233 today.



mary cutting equipment. The specialized unit can help extend the life of the newer, primary use mower by not changing it over or putting it in the more hard-use situations.

There's a much broader market for resale of a rotary mower, Nesdahl says.

"A 6-foot rotary product can go to a landscape contractor, a corporate grounds department, a high school, even a homeowner," he says. "The opportunities are endless. The reel mower, because of its nature and the more technical maintenance requirements, will typically come back to the golf market."

The sports turf market is another potential buyer of used reel products.

"The walk-behind greensmowers are the slowest resale unit," Nesdahl says. "The superintendents who walk-mow their greens have a highly labor-intensive operation and are very focused on the quality of cut, so they generally opt for new machines. Used mowers can be equipped with a higher-height-of-cut kit to fit the needs of athletic fields."

USE EXPECTATIONS

The three manufacturers point to the quality of their products and the service capabilities of their dealers as factors that can keep equipment running for a long time. The use potential is closely tied to the use hours already on the machine.

"Often the price paid mirrors the expectations," Nesdahl says. "If a mower is expected to provide 10 years of service and the course pays 50 percent of the original price for it, they'll probably anticipate five years of use."

The use period depends on how much preventive maintenance the course wants to do, how sophisticated their mechanical staff is, and how much time and money they want to invest on upkeep for each mower, Melka says.

SAVVY DECISIONS

The mower resale market has followed the lead of the car market by seeking ways to enhance the perceived value of the premium used product in the consumer's mind. So it's important for potential buyers to approach the used mower market with realistic expectations. They need to ask questions to determine the mower's history and warranty details, if a warranty is provided. It's a "buyer beware" situation if the offer seems too good to be true or the person selling the machine doesn't know its history.

Buyers should also consider the overall costs of ownership, not just the purchase price. Savvy shoppers look long term to determine the potential operating costs, including fuel and maintenance costs. That should be compared to the cost of a new mower and its operating costs during the same period. The new equipment will be more versatile incorporating the



Splintered Rakes?

Stop replacing, repairing or repainting your flagsticks and bunker rake handles each season due to fiberglass splintering, faded colors, dirt, scratches and cracking.

BENEFITS

- Very attractive, highly visible, very durable, easy to clean and will last for years.
- A low cost solution that is quick and easy to apply with a heat gun.
- Bright colors perfectly match all popular brands.
- Also works on hazard stakes.

Please visit our Booth #1911 at the Golf Industry Show Orlando, FL

VINYL

Before: fiberglass flagsticks and bunker rake handles are scratched, faded, cracked, dirty and splintered.

After: looking better than new and no more splinters with VinylGuard's tough, protective covering.

GUARD[™] gOlf Video demo at: Shrink-to-Fit Tubing www.vinylguardgolf.com

www.golfcourseindustry.com/readerservice - #34



You want consistency when it comes to your nitrogen. With StabilizedNitrogen[™] Technology (SNT), more available nitrogen stays in the soil for results that last for weeks. Insist on SNT for:

- Better color & quality
- Increased nitrogen efficiency
- Extended nitrogen availability
- Environmentally sound
- Granular and soluble programs





Insist on it.

888-547-4140 www.stabilizednitrogen.com

STABILIZEDNITROGEN IS A TRADEMARK OF AGROTAIN INTERNATIONAL, LLC.

EQUIPMENT MANAGEMENT



Stay TUNED FOR 31 (EARS OF GOOD LIVING) Bob Debagaco Bob Debagaco POWELTON CLUB NEWBURGH, NEW YORK Hving turored under the "Bill Smart" school of turfgrass culture makes me think of one of Bills's favorite lines in the summertime "Shoud have been a mason, bricks don't wilt". That's why the spray rig never leaves the shop without Surf-Side 37. I've used Surf-Side with just about

every chemical on the market. NEVER HAVE I BURNED WITH IT!

YEARLY PROGRAM My first application is late March / early April. Last application is around Thanksgiving (I go skiing after that!). Greens and Tees 4oz. / M Surf-Side on a regular basis that being every 2 to 4 weeks.

HYDROPHOBIC SOILS Any area of the Golf Course not up to par gets a DRENCH of 5gals. Surf-Side in 160 gals. water put out with a hand gun watered-in. This brings the areas under control.

LOCALIZED DRY SPOTS I've put up to 12-oz Surf-Side 37 in 2-gals. water and poured it on the LDS. It's best to first core the area with a soil probe. Follow with lots of water, and VOILA!!! No more problem. It's a "no brainer" for Superintendents fighting LDS.



Montco Products Box 404 Ambler, PA 19002 Phone: 215-836-4992 Fax: 215-836-2418

SURF-SIDE BOOTH #1105 - GIS ORLANDO

www.golfcourseindustry.com/readerservice - #36

The used mower concept isn't new to the golf market anymore, so it's easier for dealers to sell them. Photo: John Deere

technological advances of a five- to 10-year period and will provide greater durability and performance factors, but the initial cost will be higher. Superintendents need to consider all the options to determine which is a better fit for their operation, including dealer service.

"At the end of the day, what matters is the mower is still working effectively," Kruse says.

LOOKING AHEAD

Additionally, there's a potential effect of interest rate fluctuations on the overall market.

"There's a long-term seasonality that will impact the buy-to-lease ratio," Melka says. "With three to five years of low rates, there's been much emphasis on leasing as a form of shorter term ownership. That can balance out, and it can and will change as interest rates change."

But most view used mower sales as a growing market.

"There's a niche out there now, especially for the off-lease units," says Mike Murphy, general manager of the Chicago location of Turf Professionals Equipment Co. "The concept isn't new to the golf market anymore, so it's a bit easier to sell. The product is in good shape, and the golf courses feel comfortable purchasing it. I don't anticipate that changing in the near future."

Nesdahl sees the opportunity increasing, and Kruse says the resale of used mowers is a growing market.

"The amount of mowers on the market is greater because the industry has grown overall," Nesdahl says. "While the golf market isn't growing at the previous rates, more courses are opting for leasing programs, which translates to more off-lease mowers in the marketplace."

"The leasing of new equipment in the marketplace has been very good for us, and most of our distributors do a lot with it," Kruse says. "In three years, that equipment still has less than half of its anticipated use expended. People see the value in that. As course operators become more cost efficient about how their money is spent, they find that equipment is a good fit." **GCI**

Buyer protection and more

Imost 99 percent of off-lease used mowers Aare sold with a warranty. Toro and John Deere have buyer-protection programs and provide support for off-lease sales.

"The Toro Protection Plus Used program takes the worry out of buying used equipment." says Mike Nesdahl, Toro's senior manager for financing and remarketing. "To qualify for the program, the machine is required to go through a rigorous process covering an extensive range of details including lubricant analysis testing, tread depth testing and servicing of the reels and cutting deck.'

John Deere developed an Assured Certified Used Equipment program that includes a 100-point inspection process carried out by an authorized service technician.

"They go over the machine and replace the high-wear items," says Ed Kruse, national accounts sales manager for John Deere. "It's backed by a one-year powertrain warranty. With that degree of assurance, the courses are willing to accept a higher-hour used machine."

Richard Shumate, a sales rep for Van-Wall Equipment in Olathe, Kan., says John Deere Credit notifies Van-Wall six months prior to the end of a lease program.

"They ask us to provide them with notification of the customer's intentions on allocation of the lease units 90 days in advance," he says. "Machines that are turned back in will be billed to the distributor."

The decision about how to handle each unit left to the distributor varies.

"About 30 percent of our total used-mower inventory consists of off-lease units," Shumate says. "The remainder is traditional trade-ins. Our sales staff gathers all the details about a used unit and takes photos of it. We then work with the used equipment manager to coordinate the trade value of the machine and determine the path to take in marketing it. We might sell it as is, sell it serviced and ready to operate, or, if it meets the criteria, service it for a warranty program. Every warranty step adds dollars to the overall cost of the mower, so we need to balance that with what best fits the needs and budget of the potential customer."

Jacobsen is less involved in the resale market. Warranty arrangements are left to the discretion of dealers.

"We provide a one-season warranty on offlease mowers, which is about six months in our region," says Rich Vining, sales manager for Turf Werks, a Jacobsen dealer in Johnston, Iowa. "We bring in the machines, give them a work over so we know exactly what we've got, and make sure they're sharpened and ready to go. With a true lease, you've been keeping an eye on the product because you know you're buying it back. We've never had a customer turn over a lease unit that wasn't in good shape."

Dealers emphasize their focus on developing long-term relationships with their customers. The sales staff has a good handle on the current and potential needs of their accounts.

"We keep customer profiles and know way ahead of time what products are coming off lease," Vining says. "We also know which courses are potential buyers. We alert them with the details of a unit when a machine that could fit their needs is coming off lease so they can take it before their board.

Mike Murphy, g.m. of the Chicago location of Turf Professionals Equipment Co., says the company has been working the off-lease resale market for about five years.

"As a distributor, we developed a plan to be prepared for these units," he says. "Generally, we'll sell every machine with the Toro Protection Plus. It's 12 months of piece of mind for the customer. We start marketing three to six months ahead of time working toward having a home for the equipment when it comes in.

"Off-lease equipment is a different sale. You're taking one solution and need to find a customer that needs that solution. The sooner we're out there marketing it and giving our customers the awareness of it, the better the opportunity to make that match. It's a piece by piece situation. If we have two fairway mowers and two ride-on greensmowers come in, they'll probably go at resale to four customers."

Every distributor shoots for a 100-percent presale of off-lease equipment, but the reality varies, ranging from 35 percent to 60 percent depending on the items coming in, the condition and use hours of the units, and the saturation level of those machines within the marketplace. GCI

The Only Mowers That Adapt to Your Conditions



THE NEW ECLIPSE™ WALKING GREENS MOWERS FROM JACOBS

Want to adjust the FOC to get the optimal cut for any condition? The Jacobsen Eclipse™ line of walking greens mowers gives you the unprecedented power to dial in the exact cut you want for your turf. Jacobsen's Eclipse mowers are the only machines that come standard with separate, adjustable settings for reel speed, mow speed and FOC on a user-friendly LCD display. Eclipse mowers are also the only mowers to offer a variable-configuration platform that allows for hybrid or battery power - providing stealthlike quietness, fuel savings and reduced emissions. With either power plant, you'll find the Eclipse much easier and cheaper to own, maintain and service.

Experience the full Eclipse for yourself at Jacobsen.com or in Booth 2603 at the 2008 Golf Industry Show.

1.888.922.TURF • jacobsen.com



When Performance Matters.™

©2008 Jacobsen, A Textron Company. All rights reserved. Pebble Beach[®], Pebble Beach Golf Links[®], The Heritage Logo, The Lone Cypress™ and their underlying distinctive images are trademarks, service marks and trade dress of Pebble Beach Company. Used under license.

The Official Turf Equipment Supplier to The PGA of America and The Exclusive Turf Equipment Supplier to PGA Golf Propertie www.golfcourseindustry.com/readerservice - #37

45

PEST MANAGEMENT

Remaining VIGILANT

BY JOHN TORSIELLO

Superintendents try to keep the upper hand when battling nematodes

They've been around almost since time began and certainly eons before the first golf course was laid out over the sandy soil of Scotland's linksland. Nematodes are wormlike creatures that live in the soil and munch on the roots of turfgrass superintendents so lovingly care for. Nematodes, most of which are microscopic, are an ongoing pest management issue along a

broad band that stretches from the Southeast to the Southwest and into California. While various forms of nematodes (there are thousands of species of the plant parasite) inhabit cooler northern climates, they're a more daunting problem in warmer weather and areas that have sandy soil. In Florida, for instance, superintendents must maintain strict vigilance of nematode populations, or they run the risk of losing their greens.

Northern superintendents, such as Rob Giampietro at Bulls Bridge Golf Club in Kent, Conn., are fortunate.

"We don't see many nematodes in our soil because of the cold weather," he says. "And any of the sand we've brought in is to USGA standards and arrives sterile."

Many aren't so lucky.

"Nematodes are one of our top nemeses here," says Jason Kubel, superintendent at the Tour-



The Only Mowers That Adapt to Your Operators



THE NEW ECLIPSE™ WALKING GREENS MOWERS FROM JACOBSEN®

There's no standard-sized operator. Differences in height, hand size and walk speed make it difficult to get a consistent mow from green to green. However, Eclipse[™] greens mowers come with Jacobsen's exclusive new InCommand[™] control system that takes unwanted operator input out of the equation. A spring-assisted D-handle provides steady, consistent movement and dampens operator irregularities. In-Command is also the only control system that allows operators to adjust the speed of the machine on the fly – which makes the Eclipse an easy machine to use and maneuver for operators of all experience levels.

Experience the full Eclipse for yourself at Jacobsen.com or in Booth 2603 at the 2008 Golf Industry Show.

1.888.922.TURF • jacobsen.com



When Performance Matters.™

©2008 Jacobsen, A Textron Company. All rights reserved. Pebble Beach[®], Pebble Beach Golf Links[®], The Heritage Logo, The Lone Cypress[™] and their underlying distinctive images are trademarks, service marks and trade dress of Pebble Beach Company. Used under license.

The Official Turf Equipment Supplier to The PGA of America and The Exclusive Turf Equipment Supplier to PGA Golf Properties. www.golfcourseindustry.com/readerservice - #38

VC-60 VERTI-CUTTER By First Products, Inc.

The VC-60 VERTI-CUTTER is designed for continuous heavy duty operation for fairways and tees, in all types of turf. This unit has a patented swing hitch that allows the operator to verti-cut around objects while turning without tearing the established turf. Cutting depth is 1 1/2 inches deep..





164 Oakridge Rd. Tifton, GA 31794

Wats: 1.800.363.8780 Phone: 229.382.4768 Fax: 229.382.0506 email: sales@1stproducts.com www.1stproducts.com

www.golfcourseindustry.com/readerservice - #39

PEST MANAGEMENT



Nematodes have the potential to destroy a new putting green in one season. Photo: Billy Crow, Ph.D.

nament Players Club of Tampa Bay in Florida. "They usually start becoming active in April when the weather warms up and last through October. We find them mostly on the Bermudagrass and on the greens. They're on the tees and fairways, too, but we don't spend as much time treating those areas."

ROOT DAMAGE

Nematodes feast on the roots of the turf until the grass is literally clinging with its figurative fingernails to the earth. A healthy Bermudagrass plant will have roots 6 inches deep, while grass attacked by nematodes can have as little as an inch or two of root depth.

Because many greens are constructed of as much as 90 percent sand, they present an ideal habitat for plant-parasitic nematodes. With greens that might be at a breaking point already because of low cutting heights, drought, and wear and tear, damage to the root system caused by nematodes can stress the turf to the breaking point. If left untreated, nematodes can put in motion a devastating cycle of decline that can lead to a complete breakdown in the turf's all important nutrient- and moisture-gathering processes and open it to disease and other pests.

An acceptable count of nematodes in a

100-cubic-centimeter sample of soil is between 20 and 40. When infestations occur, that number can rise well into the hundreds.

"It usually takes longer, but I've seen nematodes destroy a new putting green in one growing season," says Kevin Lavigne, president and owner of Southern Soils Turf Management, which chemically treats between 400 and 600 Florida golf courses annually for nematodes.

A study prepared by Billy Crow, Ph.D., a nematologist with the University of Florida in Gainesville, showed turfgrass roots suffering from nematode damage have impaired ability to take up water and nutrients from the soil, thereby requiring more frequent irrigation and fertilizer applications. This, in turn, leads to a waste of fresh water resources, which have been strapped in some areas of the country this year, particularly in the Southeast. The study showed turf affected by nematodes might necessitate increased fungicide use by creating conditions ideal to the outbreaks of fungal diseases. Nematode-affected turf also is less competitive with weeds and might require increased herbicide use. In the end, the turf can become so weak and chlorotic it can wilt, thin out and, in a worse case scenario, die.

While species are many (there are more than 20,000 identified and perhaps as many as a half million crawling around), those doing the most damage to golf courses are sting, stubby-root, stunt, ring, lance, root-knot and spiral nema-todes. They feed and reproduce on plants while their bodies remain in the soil or enter the plant

to feed and reproduce. Contact nematacides have greater success on the former and systemic nematacides on the latter.

"The most damaging nematode is the sting, which is native to the sandy soils of Florida, the Carolinas and into the coastal areas of Louisiana and Alabama," Crow says. "The lance nematode is the second most damaging species, and it's found all the way from Florida to Canada and from the East Coast to the West Coast. It's the most common but not as damaging as the sting. You'll see root-knot nematodes in the Northeast, and spiral nematodes in the western states."

The farther north a golf course is located the less damage it likely faces from nematodes because growing periods are shorter and the pests have less time to reproduce, Crow says.

"In the South, especially Florida, the temperatures are warm for much longer periods of time, and there are more life cycles (generally around 21 days). About 50 percent of the courses surveyed in Florida had lance nematodes on the greens, and 50 percent to 60 percent had sting nematodes."

DOING BATTLE

Nematodes have always been a problem, but perhaps they're more noticeable now because of members' expectations that turf conditions be hard and fast, says Clayton Estes, superintendent at San Jose Country Club in Jacksonville, Fla. Lower mowing heights have direct correlation to the length of the roots, and shorter grass has less natural fight in it, Estes says.

For Dan Connolly, superintendent at Aberdeen Country Club in Longs, S.C., nematodes

are normally an issue on the greens.

"It's important to have a sound turfgrass management program in place," he says. "The healthier the turf, the better the grass can withstand some feeding by most types of nematodes. We sample our greens monthly from March through October. If we have significant nematode damage that's confirmed by a nematode assay, we'll usually treat the damaged area with Nemacur. Taking the sample is fairly time consuming but well worth the effort."

Edward Ferreira, superintendent at Las Positas Golf Course in Livermore, Calif., has issues with spiral and ring nematodes. He also has his staff monitor nematode counts and attacks the problem when and where it occurs.

"Sand-based *Poa* greens that dry out quickly suffer the worst," he says. "Symptoms include spots on the greens about two to six inches in diameter. Our goal has been to build up the health and strength of the turf through fertilization and organic products and fungicides. Heavy handwatering and the use of wetting agents are time consuming but helpful on a short-term basis."

Most superintendents in areas susceptible to nematode attack opt for the use of chemicals in their fight against the pest. Two of the more popular products have been Nemacur from Bayer and Curfew from Dow AgroSciences. Both are injected into the soil and involve a somewhat costly and mildly invasive procedure that's often best handled by an outside company.

Lavigne's company charges \$390 per acre for treatment of fairways, tees and rough and 8.5 cents per square foot for greens. There are various discounts offered. Usually, one treatment



Nematodes are one of the top nemeses at the TPC of Tampa Bay. They become active in April and stay that way until October. Photo: Jason Kubel





THE NEW ECLIPSE™ WALKING GREENS MOWERS FROM JACOBSEN®

Jacobsen's new line of Eclipse[™] walking greens mowers offer fixed or floating heads depending on your needs. The exclusive design of the Eclipse floating head walking greens mower allows it to provide 50% more float than competitive floating head mowers. That means 50% better reach into those undulated areas that are susceptible to scalping. Push the limits of your turf without fear and provide tournament-quality conditions for your players every day. During testing, the Eclipse 122 F cut at .080" without scalping.

Experience the full Eclipse for yourself at Jacobsen.com or in Booth 2603 at the 2008 Golf Industry Show.





When Performance Matters.™

©2008 Jacobsen, A Textron Company. All rights reserved. Pebble Beach[®], Pebble Beach Golf Links[®], The Heritage Logo, The Lone Cypress™ and their underlying distinctive images are trademarks, service marks and trade dress of Pebble Beach Company. Used under license.

The Official Turt Equipment Supplier to The PGA of America and The Exclusive Turf Equipment Supplier to PGA Golf Properties. www.golfcourseindustry.com/readerservice - #40

PEST MANAGEMENT



per year is sufficient to control the nematode population to the point where it doesn't stress the turf's root system to any great degree. The treated areas must be closed for at least 24 hours after treatment.

"It is somewhat expensive, but when you consider it costs \$12,000 to \$14,000 to build a new green, and more if you want to do it to USGA specs, it's a cost-effective treatment," Lavigne says.

PESTICIDES PRODUCTS

While fumigants have proven effective, concerns about the nematacides leeching out of the treatment area and remaining in the soil for long periods of time have led to stringent environmental regulations. Thus, superintendents are losing some of the tools they can use in the fight against nematodes. Nemacur, which as been used for more than 30 years, is being phased out by the U.S. Environmental Protection Agency. Bayer has a large supply of the chemical in its distribution channels that has to be sold by May of this year, says Nate Royalty, insecticide technical development manager for Bayer Environmental Science.

"We recommend superintendents buy what

they need for a two-year supply," adds Ben Cicora, herbicide business manager for Bayer. "Once the product is in the superintendent's hands it can be used indefinitely."

It's not an ideal situation for the superintendent, but Bayer is dedicated to finding a replacement as soon as possible for Nemacur, Royalty says.

Dow's Curfew product has been in use in the agriculture industry for a number of years and is used widely in the golf industry for nematode control. The company initiated a customized program were it sells the product to a customer and arranges for it to be applied by a third party.

"We did this for two main reasons: One is stewardship and ensuring the proper handling of the product, and the other is efficacy," says Dennis Lane, marketing specialist for Dow AgroSciences. "The performance of this particular product is very subject to its proper application."

Dow has updated the active ingredient in Curfew (1,3-dichloropropene) and made it better from an environmental-impact standpoint, Lane says.

"We had to go through a reregistration process, and it was one of the few fumigants to be recertified for use on golf courses," he says. The sting nematode, which is native to the sandy soils of Florida, is the most damaging type of nematode, says Billy Crow, Ph.D., pictured here. Photo: Billy Crow, Ph.D.

Crow and other university researchers are in the process of bringing new products to market to help control nematodes.

"There's some exciting stuff going on with biological organics and one specific bacterium that attacks sting nematodes," he says. "It can be more of a preventive measure if applied early when nematodes reproduce. Another bacterium works as more of a knockdown treatment. We are working with chemical companies on early stage screening for several products, while others are still some years out."

CONTROL MEASURES

There are many steps superintendents can take to safeguard their courses from nematodes. Crow advises taking samples early in the year to determine nematode counts.

"Usually when the soil warms up to 70 to 75 degrees, that's a good time to take samples," he says "Don't go out in July or August because at that point the grass has already been damaged and you won't be able to be proactive."

Keeping turf healthy through fertilization, watering and lowering mowing heights when possible will allow the plant to grow a stronger root system and help it defend itself from nematode attacks.

When hiring an outside firm to treat for nematodes, superintendents should prepare the course properly to allow crews to get in and out as fast as possible. Superintendents also should inform the customers/members well in advance why the course is being closed for a day. Golfers might be upset, but hopefully they'll appreciate the care superintendents take with the course.

After treatment, superintendents shouldn't be lulled into a false sense of security when they see thick, lush greens, tees and fairways. Nematodes are always present and thrive on optimum turf conditions. That's why it's important to take soil samples regularly.

"You will never eradicate nematodes," Crow says. "You can just control them." **GCI**