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Kick the tires

Acquiring equipment doesn't have to break the bank. What you need to look for when purchasing used equipment.

by Rob Thomas

Whether the greens mower has cut its last blade of grass or the trusty chainsaw has seen better days, every superintendent is faced with replacing equipment – large and small. With rising costs and tight budgets, used machinery is a terrific option. However,

deciphering trash from treasure in the pre-owned market is the real dilemma.

Knowledge is power, says Paul Danielson, manager, financial marketing at Toro, so superintendents should gather copious amounts of information ahead of the purchase.

“Potential customers should deal with



Good used equipment is in high demand and prices typically reflect that need.

reputable sellers,” Danielson says. “Research the market. What is the range of pricing you see advertised for a particular product? The old adage of ‘if it sounds too good to be true...’ applies here, as well. Good used equipment is in high demand and prices will reflect that.”

Rick Baker, general sales manager, Baker Vehicle Systems, echoes Danielson’s thoughts on supply and demand.

“We’ve seen demand for good, late model, low-hour used equipment skyrocket in the last two years and as a result, the price of used equipment had risen significantly,” Baker says.

Buddy Wynn, certified pre-owned manager at Jacobsen, works closely with Baker. Wynn assigned numbers to what a superintendent should be seeking in used equipment.

“When it comes to turf maintenance equipment like mowers and utility vehicles, ideally you want a machine that is late model and low-hour, something that still has value and life in it,” Wynn says. “You’re likely going to get the best value



Mainstream equipment that is used by many customers will retain its value better than some "exotic" equipment that is used by relatively few customers.

from a machine that's 3-6 years old and less than 1,500/1,800 hours."

As for the equipment that historically holds value the best ... Jacobsen has seen several standouts of late.

"From a factory perspective, we're seeing a high demand for Tri-King trim mowers and SLF-1880 fairway mowers, and they are holding their value as a result," Wynn says.

Baker shared that Jacobsen large area rotarys and Cushman Turf-Trucksters hold their value very well.

Herman Bloch of Beard Equipment Company, one of the largest John Deere distributors in the Southeast, says his customers will blend a little used equipment with a package of new as a cost-effective strategy.

"Instead of three [new] fairway mowers, buy two new and one used ... same with greens mowers - needing four and buying two or three new and one or two used," Bloch says. "Superintendents should look out for how much reel life is left on the unit. Second, what was done to the unit after it was traded or taken in off lease? Was the unit serviced-engine, hydraulic oil and filters, as well as air and fuel filters?"

"Brakes are a big thing with me as it can be a safety factor if they are not done before being delivered to a customer," he

adds "And, of course, all safety features are in working order."

Trim mowers, tractors and rotary mowers, according to Bloch, hold their value best because there is a larger secondary market for these, such as schools, sports fields and homeowners.

Danielson says several dynamics often determine what maintains value.

"Mainstream equipment that is used by many customers will retain its value better than some 'exotic' equipment that is used by relatively few customers," he says. "Some equipment, vehicles for example, have a market outside of golf, so that widens the scope of prospective customers and this will influence the supply-and-demand equation.

"Equipment that is relatively 'simple' mechanically may retain its value better than equipment that has lots of 'moving parts,'" Danielson adds. "The amount of usage is also a huge driver in this equation and some products - i.e. sprayers and aerators, that are not daily-use items - will have more years of life, compared to products that are in everyday use."

Conversely, Danielson says there is no easy answer to when a superintendent is better off biting the bullet and buying new - referencing the price-versus-value equation.

A customer's budget and capacity to

"The best value over the long-term is always going to be found at an authorized dealer. You need to know that there is someone who will back that product up with service and support."

- Buddy Wynn, Jacobsen

fix and maintain equipment - either internally or use of a local dealer/distributor - will drive what is best for a particular customer," he says.

When it comes to greens mowers, Baker says he likes to see his customers buy new.

"Greens mowers are out there seven days a week and machine reliability is critical," Baker says. "Greens are the most critical turf on any course and you want to mitigate the risk of hydraulic leaks or other issues that may come with

a used unit. "Plus, the advances that have been made in the last several years with things like the Jacobsen ECLIPSE greens mowers... the new technology alone is worth the investment," he adds.

While turf equipment can be found on the all-inclusive shopping website eBay, Baker warns it's "buyer beware."

"There are websites out there where you can buy used equipment, but you have to be really careful," he says. "It's not like buying books or shoes, these machines need to be serviced. Some of these sites simply take your money, drop off your machine and leave, and you may have little or no recourse in the weeks and months that follow if things don't go well.

"As an authorized dealer, we are held to a high standard by the industry and customers pay a little more for that security and peace of mind because it's worth it," Baker adds.

Speaking of websites, don't expect a computer-generated fox to help force the hand of a seller on the equipment's history.

"If possible, view the maintenance records of the equipment," Danielson says. "The industry has not evolved to a 'CARFAX-type' system given the fact most maintenance is done by the owners, but getting a look at the maintenance records can be extremely helpful (if the previous owner is willing or able to share it)."

Beyond that, examine areas that are readily visible, Danielson adds.

"If the visible items look lacking in maintenance, could that be a clue to what is not readily visible?" he asked. "There are also some tests that can be done (for example, lubricant analysis, compression testing, etc.). Of course, the testing does entail some costs, but could save money later."

There's a certain amount of unknown in any purchase, new or used, but Wynn suggested that avoiding a future headache can be as easy as staying on a tried-and-true path.

The best value over the long-term is always going to be found at an authorized dealer, Wynn says.

"You need to know that there is someone who will back that product up with service and support," Wynn says. "Jacobsen dealers now sell Certified Pre-Owned equipment



Prior to purchasing, consider: What was done to the unit after it was traded or taken in off lease? Was the unit serviced — engine, hydraulic oil and filters, as well as air and fuel filters?

that is rebuilt at the factory and includes a one-year factory warranty."

A Caveat Emptor may protect the seller with an "as-is" proclamation, but that leaves the buyer with no recourse but to foot the bill with any mechanical migraines. What you don't know, can certainly hurt you.

"It's never easy to identify a machine that might be a problem down the road," Baker says. "You may not know where that machine has been the past 3-5 years or how it was treated and maintained.

"I would recommend dealing with a local dealer who is capable of providing a thorough inspection of the equipment, has factory-trained technicians who know how to repair and service it, can communicate with the factory regarding any technical issues or mechanical updates, and will stand behind it after it's sold," he adds.

"As a dealer, we are very careful about the used equipment we purchase or take on trade," Baker says. "It is inspected and evaluated prior to purchase to ensure we are getting what we pay for."

Researching on the Internet for potential problems inherent with certain models of turf equipment can alleviate some stress, as well as talking to fellow superintendents and techs to get their opinions,' Bloch says. Having the dealer leave the unit at the course for a day or two to be put through its daily routine is an ideal scenario, he adds.

Again, knowledge is power when it comes to making a purchasing decision.

Before even considering buying used equipment, you really need to evaluate what you own, Baker says.

"If your equipment is well maintained, late model and has low hours, you might be surprised at what you have in value," Baker says. I wouldn't suggest solving one mechanical problem by replacing it with another, though ... be careful with what you buy and find a local source you trust."

Having a guide and assurances can make navigating the pre-owned market for equipment a lot less frightening. **GCI**

Rob Thomas is a Cleveland-based writer and a frequent GCI contributor.

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MAKE THE SMART CHOICE

Don't underestimate a good irrigation installation contractor's role.

Spring is coming and it is time to think about fall construction projects. Construction takes lots of planning and preparing for them to be successful, but all that planning, preparing and time spent will all be for naught if you do not hire the right contractor to install the work. Although this applies to any construction project, there are specific requirements and experience you want to look for when hiring irrigation contractors. The degree of experience required is dependent on the size of the project and also as to whether the irrigation is the majority or minority part of the project.

I always like to point out to superintendents and boards that you can have the best irrigation design in the world, select the best irrigation equipment, sold by the best distributor, but if you do not hire a good irrigation installation contractor all those other things will be useless. That said, what do you want to look for in an irrigation contractor?

First you want experience, and not experience limited to just the individuals working on the installation. You need an experienced foreman who can communicate with you and members and, if necessary, the board. English speaking is important. The company and site superintendent or foreman should have experience with at least five courses and preferably with the manufacturer's equipment being installed, whether it is Hunter, Rain Bird, Toro or another brand. Each manufacturer's system is different and the more they have worked with it the better off your project will be. There should also be an assistant



When selecting an irrigation installation contractor, you will inevitably reap the benefits of your decision or have to deal with the consequences.

foremen or site supervisor with some experience also so the work still gets done properly if the foreman is off for a day or at a meeting. I once had a job where only three things were done not according to plan and they were all on days the foreman was off.

It is imperative that the company also have experience with golf course irrigation installation, not just have an experienced foreman. Golf irrigation requires a company with specialized equipment and a lot of it. It requires a good stable financial base, as it can take a long time to get paid and there is a very large outlay of up front-dollars for materials and for the mobilization of equipment and personnel. Additionally, there are more stringent insurance and paperwork requirements than a residential/commercial irrigation contractors may be used to. The company also needs to know golf. Working on a golf course

requires a degree of etiquette that only people who work on a course know. Don't walk on the greens if not necessary or ever through a bunker. Loud talking should not be allowed and when traveling through the golf course you need to pay attention to play and stop and wait when necessary. Shirts need to stay on at all times.

When you are renovating the golf course at the same time as the irrigation system installation, contractor selection becomes a bit more muddled. Some golf course builders do irrigation and some do not. If they don't, then use the same selection process that you would use if it was irrigation only. If the builder also does irrigation, find out if they do irrigation only on their renovation projects, or do they do irrigation only projects also? You need to do your homework as some builders are good

at irrigation while for others it is just an add-on service that they do not do too often and therefore may not be very good at it. I like to look at it in terms of contract value. When you are looking at a project that is both irrigation and renovation which is worth the most amount of money?

Given the high cost of today's irrigation systems, many times the irrigation work is worth more than the renovation work. When that is the case, I recommend that the irrigations system be bid as its own project to irrigation only contractors as well as the builder. The renovation work can then be bid separately to golf course builders or the renovation work can be run through the irriga-

tion contractor using the builder of your choice as a subcontractor.

When bidding a public project, you have no idea who may bid the project as it is open to any contractor. In this case, the contractor qualifications need to be very strong so you get someone who knows what they are doing. You also need to make sure the public entity contracting the work enforces the qualifications during bidding. If it is a private bid, then you have total control over the bidding process. Keep the bid list short. Remember, the easiest way to keep a contractor from not getting your project is to not let them bid it in the first place. Once they provide a number, it will be a lot harder to get rid of them.

Keep the list to three to five contractors and interview them. In addition to references that you need to check, make sure you are going to get along professionally. Beware of board members who want to put contractors on your list, like the one that did their house – not qualified.

Successful projects start with picking good irrigation contractors. Take the time to do your homework and research prospective bidders. Use your network and other professionals to determine what company will be the best fit for your project.

Remember you will either reap the benefits or have to deal with the consequences of the selected irrigation contractor. GCI

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ULTIMATE SURVIVOR

This winter's frigid temperatures may impact Pythium, but don't count it out of the fight just yet.

by Rob Thomas

As the term “polar vortex” was bandied about and record-low temperatures stretched across the country, thoughts turned to what this winter's weather might mean for disease pressure come spring. For superintendents concerned about Pythium, recent history may provide a clue.

Jim Kerns, Ph.D., turfgrass pathologist at North Carolina State University, thinks it is unlikely that an unusually cold winter will impact Pythium much.

“Yes, the survival of the inoculum from the previous year may go down, but these organisms are great survivors,” Kerns says. “They produce thick-walled oospores that can survive for many years in soil regardless of weather conditions. Moreover, the recent polar vortex makes us think this winter has been unusually cold, but when looking at average weather data, our winter

in North Carolina is not much different from 2010 and we observed numerous cases of Pythium root rot during the summer of 2011.”

Dr. Jill Calabro, Valent Professional Products' regional field development manager, says the most common Pythium blight is associated with hot (86-95 F) and humid/rainy weather with nighttime temperatures above 70 F; however, cool-season Pythium is also possible. Cool-season Pythium blight can occur at temperatures between 55 and 64 F, again in wet weather.

According to Kerns, Pythium species are classified in a different kingdom than fungi, but they are still referred to as oomycetes or water molds.

“The key term there is ‘water molds,’ so wet weather generally leads to ideal conditions for Pythium infections,” he says. “It is very important to note that there are



KEY POINTS

- Pythium produces thick-walled oospores that can survive for many years in soil regardless of weather conditions.
- Wet weather generally leads to ideal conditions for Pythium infections.
- The common theme with Pythium diseases is moisture, but the timing of the moisture is different for each disease.
- Spring and summer climate plays more of a factor than winter temperatures.
- Creeping bentgrass, annual bluegrass and ultradwarf Bermudagrasses are the turfgrasses typically seen with Pythium issues.



A number of fungicides can be used in early curative situations for Pythium.



many different Pythium diseases. There is Pythium blight, which is a foliar disease that typically develops during hot, humid weather and is typically associated with native soil fairways or putting greens. However, with ultradwarf Bermudagrass putting greens we see Pythium blight during periods of wet, cloudy weather. This typically occurs during the spring and fall, but it could also occur during the summer if wet, cloudy conditions persist for a period of days or weeks.

"Pythium root rot is a disease of putting greens, primarily, and is associated with hot, wet conditions, as well," Kerns adds. "This disease is also associated with summer stress... it is our biggest issue on creeping bentgrass putting greens in the transition zone. It can occur in Northern climates, as well. This disease is poorly understood with regard to specific weather conditions, but Dr. Lee Miller and I received funding from the GCSAA and local chapters in Missouri and Wisconsin to examine this disease in more detail.

"The final disease is Pythium root dysfunction," Kerns adds. "This particular Pythium disease has only been associated with creeping bentgrass putting greens of high sand content that are relatively young. With Pythium root dysfunction, the pathogens infect when soil temperatures are between 55 and 75 F, but symptoms do not manifest until the plants experience heat or drought stress. This disease is associated with moisture, too, but high moisture contents when soil temperatures are conducive for infection."

Overall, the common theme with Pythium diseases is moisture, but the timing of the moisture is different for each disease, according to Kerns. His suggestion to superintendents: Send samples to a diagnostic lab if they suspect a Pythium issue because all Pythiums are not created equal.

FIND THE CURE

Fortunately, if Pythium rears its ugly head on your course, it's not too late.

"There are several really great fungicides that can be used in early curative situations, such as when the first signs of infection appear, including Stellar," says Dr. Jill Calabro, Valent Professional Products' regional field development manager. "If the disease has progressed, a fungicide such as a Terrazole may be necessary."

Jim Kerns, Ph.D., turfgrass pathologist at North Carolina State University, suggests high rates of Subdue, Segway, Stellar or Banol for curative management of Pythium blight. Pythium root rot and Pythium root dysfunction are more difficult to manage when they develop, though.

"The damage to the root system has already occurred if symptoms develop, however, there are some steps that can improve turf quality," Kerns says. "We have heard from superintendents that curative applications of Terrazole and Segway are effective when applied at high rates and short intervals (5 to 7 days as weather conditions persist).

"For example, an application of Terrazole followed by Segway for 3-4 days has slowed the development of Pythium root rot in our experience," he adds. "Unfortunately, managing Pythium root rot chemically is more of an art form than science. Culturally, this disease is normally associated with low-lying areas of putting greens, so monitoring soil moisture levels is critical. In some circumstances, due to subsurface flow of rain and irrigation water, it may not be necessary to water certain areas of putting greens. I would advise superintendents to map their problem greens, at least, to determine if water is accumulating in certain areas of the putting green, because this is most likely the areas Pythium root rot will be most severe.

Curative applications for Pythium root dysfunction are rarely successful, according to Kerns. He has seen some response from high rates of Insignia and some have reported suppression with mixtures of Signature and Banol.

Kerns says the best way to combat Pythium root dysfunction when it occurs is to raise mowing heights, increase spoonfeeding of N (from a 1/16 to 1/10 or 1/10 to 1/8), alternate mowing and rolling ... basically anything that alleviates physiological stress on the plant. This is also beneficial for Pythium root rot.



Overall, the common theme with Pythium diseases is moisture, but the timing of the moisture is different for each disease.

Considering the variations, no region, nor turfgrass, is safe from Pythium.

“Pythium blight can occur in all parts of the country, but clearly is more common in southern and transition zone areas that normally experience the hot/wet weather conducive for Pythium,” Calabro says. “All grasses are susceptible to Pythium blight, though cool-season grasses are more susceptible.”

Kerns says climate this spring and summer will play a major factor. Perennially, Pythium root rot is problematic throughout the transition zone, while Pythium blight continues to plague some ultradwarf putting greens.

“When I was at UW-Madison, we rarely [saw] Pythium root diseases, yet Pythium blight could be problematic if our summers were warm and wet,” he says. “Basically, I cannot say what area should be most concerned with Pythium diseases. Superintendents in each area should be aware of the weather - which they all are - and if conditions are conducive for a particular Pythium disease, then deploy the appropriate management strategy.”

Creeping bentgrass, annual bluegrass and ultradwarf Bermudagrasses are the turfgrasses typically seen with pythium issues, Kerns says. However, most turfgrasses are susceptible to Pythium infections.

“Perennial ryegrass is the grass species that many turfgrass pathologists use to test fungicides for efficacy against Pythium blight, so if turf managers are growing perennial ryegrass, then beware of Pythium blight,” he says. “It is not one I saw much of in Wisconsin or North Carolina because the grass was not commonly grown in either area.

“Seedlings are particularly susceptible to a disease called ‘damping off,’ so if new seedlings are planned, it is imperative to protect against damping off,” Kerns adds. “Many fungi can cause the disease, so we typically suggest tank mixing a Pythium product (Segway, Subdue, Banol, Stellar) with Chlorothalonil, Heritage, Insignia, Compass or Disarm.”

As for what part of the course that’s generally affected, Calabro says low-lying areas or areas with poor drainage known for standing water, and areas with poor air circulation are most susceptible to Pythium blight (and many other diseases, for that matter). A good preventative measure?

“Increase drainage and air movement as much as possible,” she says. “Consider utilizing fans in closed-in areas. Irrigate early in the morning. A monitoring program is also important: Watch for Pythium development in areas with a history of disease development and keep track of

weather forecasts. Treat preventively with fungicides, such as Stellar Fungicide, when hot/wet conditions are predicted.”

In addition to watching the weather, Kerns suggests communicating with a local turfgrass pathologist now to develop a plan of attack for the summer.

While the variations of Pythium make it difficult to suggest a one-size-fits-all plan, Kerns says developing a sound fertility and watering regime that promotes healthy rooting will help in combating all diseases.

“I also think it is important to ask for help from your peers or local turfgrass faculty,” he says. “Specifically for Pythium blight, limit nitrogen applications during hot, humid periods and schedule preventative applications a week to a few days prior to the development of hot, humid weather. In my experience, superintendents are good with Pythium blight management.

“The Pythium root diseases can be tricky, however,” Kerns adds. “For Pythium root dysfunction, most of the preventative management should be focused when soil temperatures are between 55 and 75F. This would include preventative fungicide applications, nitrogen fertility and limiting watering if possible.

“For Pythium root rot, we typically suggest starting preventative fungicide applications in May in North Carolina,” he continued. “We normally see substantial rainfall in May, followed by hot weather. So if, or when, that happens in other regions of the United States, it is time to manage for Pythium. In some circumstances that may be a short window or in others it could be a very long window. I know some courses in the Pacific Northwest have struggled with a Pythium disease, and scheduling fungicide applications or other cultural practices can be challenging.”

Both Kerns and Calabro suggest sending a sample to a diagnosis lab - most state universities offer disease diagnostic services - if Pythium is suspected. This is especially important in the case of a possible cool-season Pythium blight or Pythium root rot infection, as these can be easily confused with other diseases, Calabro says. **GCI**

Rob Thomas is a Cleveland-based writer and frequent GCI contributor.