You’re an artist, and Turfcide® is your powerful brush.
Nothing, pound for pound, is more effective at stopping snow mold from ruining your masterpiece.

Contact your AMVAC/AEP distributor today or call us directly at 888-462-6822. Online visit amvac-chemical.com for more information.
TIMBER!
Successfully sell your members on the idea of tree removal.

You will be reading this in January, when many of you will be taking down your Christmas tree. You hate to do it, but you know you have to. Many superintendents have the same feeling with their golf course trees, with the added problem of convincing extremely reluctant members that it is necessary.

Tree removal is a trend that’s here to stay, and this may make your job convincing members a little easier. At a renovation project interview years ago, club members said I shouldn’t recommend removal of a large Cottonwood near their 4th green. That seemed reasonable, until I saw it. The tree was almost on the green edge, with its roots actually pushing through the turf. It was messy and blocked morning sun. When asked “Do you think you will save this tree?” my response was, “Sure, if you tell me where to stack the logs!”

I did not receive that commission, but members are more open to tree removal now after seeing many famous courses selectively remove trees and still maintain their character, difficulty and charm. At the current pace, it may take time to reverse five decades of overplanting. But, if the same greens committees responsible for the overplanting are now removing trees, we might be a nation of links courses very soon.

“Golf purists,” perhaps rooted firmly in the nostalgia of an earlier time, think that can’t happen too quickly, but most golfers still like tree-lined golf holes. The discussion sometimes paints those old committees as clueless, when in fact, heavy planting helped make any course built in open fields much more enjoyable. However, too many courses planted the wrong species for quick growth or cheap cost, in the wrong places (trees never naturally grow in straight lines), didn’t consider eventual size, or forgot the second half of the old landscaping adage of “Plant thick, thin quick.”

In stating the case for removal, removing trees for agronomy reasons should be a no-brainer. Trees and grass usually don’t mix well. Trees near greens and tees with canopy over (and roots under), trees that block morning sun or air movement are all problems solved by tree removal.

In addition, trees require more water resources than turf, which in some places is reason enough to make them candidates for removal.

Trees too close together to mow between are problems. Although tight clumps with mulch beds between are more natural and mowing production increases when mowing between every tree is reduced.

Objectionable species, including fast-growing, but weak-branched species like most maples, willow, and poplar, or messy trees like sycamores, are problems that are best removed.

Trees can impact play in bad ways, especially low-branched trees that hide balls and plantings that have unintentionally narrowed fairways or caused “forced draws and fades.” These may be problems a golf course architect will identify.

For aesthetics, your golf architect will know that:
• Aesthetics can be improved by removing trees, by opening up long-distance views.
• Carefully located tree groups can serve several holes equally and minimize planting.
• Random clumps are more attractive than straight lines.
• This isn’t an arboretum. Except for key areas, plantings needn’t be showy and expensive.

Many courses are shocked when an arborist tells them many of their best-looking trees and mature trees are diseased. Your aesthetics may be great now, but consider your trees in a 20-year time frame to maintain – and improve – that look.

Trees are important to most golf courses, defining doglegs, separating holes, and providing backdrop, filtered shade, strategy, penalty and character. They also cost money – both in direct maintenance and indirectly in golf course maintenance. In cost-conscious times, each tree needs to be functional, or multi-functional, while presenting few problem to be justifiable. Less definitely can be more.

Time can be your ally, and many trees should be eventually replaced, with better design, locations, and species. However, you can wait a few years to remove some weak or poor varieties of mature trees until newly planted trees mature enough to provide the same function.
“Competition makes us work harder so you don’t have to”

Get The Facts!

This Just In From U.S. Battery!

U.S. Battery has been a supplier of premium flooded deep cycle batteries since 1927. During that time, our golf car batteries have been the choice of golf car manufacturers because the product does what we say it will do. Today, U.S. Battery is the leading supplier of deep cycle batteries across multiple market segments the world over.

XC Diamond Plate Technology has proven itself as the first real improvement in deep cycle batteries since its inception in 2006. In 2011, we took the next step up to bring you Xtreme Capacity 2 (XC2). One look at our 20 Hour Rate is evidence of the performance advantage of the improved U.S. Battery formulation.

Recently a very large and well respected battery expert decided to take measures into their own hands; to find out for themselves which 6-volt golf car battery performed the best. The testing was performed using state of the art computer controlled test machines, designed to discharge the battery pack at the proper discharge rate used in the golf car industry, 75 amps. Each cycle discharged the battery pack down to 1.75 volts per cell, or 100% of useful capacity without damaging the test samples. The battery pack was then recharged at the proper rates, as specified by the respective battery manufacturer’s recommendations, the standard for testing as outlined by the BCI. This process was repeated until the batteries could no longer meet 50% of their rated capacity. As you can see from the chart below, it takes a lot of time and effort to achieve the correct life cycle test results. We wish to sincerely thank our battery expert for their efforts to accurately and honestly identify performance results versus unsubstantiated claims.

The results are in.

- **US 2200 XC2** - Highest initial capacity.
- **US 2200 XC2** - Fastest cycle up to full rated capacity.
- **US 2200 XC2** - Exceeds rated capacity.
- **US 2200 XC2** - Highest total energy delivered over a longer cycle life.

For more information or questions, please visit [WWW.USBATTERY.COM](http://WWW.USBATTERY.COM) ©2014 U.S. Battery Mfg., Co. All rights reserved.
Ryan Baldwin will never forget the summer of 2010. His course, Highland Golf and Country Club in Indianapolis, Ind., experienced a stretch of extreme heat and precipitation in June. More than 16 inches of rainfall accompanied temperatures in the upper 90s. The course was saturated beyond the point where most fungicides could be absorbed and utilized properly by the plant. Contact fungicides had difficulty adhering to tissue, and lasted a few days at best. But plant growth regulators (PGRs) came to the rescue.

"On the areas of the course we kept a relatively regular regime of PGR in the mix, the plant survival improvement was noticeable and dramatic," says Baldwin, CGCS/facilities maintenance director. "Once the rainfall stopped, we still had a long summer ahead with much-weakened plants; and the PGR-treated areas handled the remaining seasonal stresses."

Baldwin says his use of PGRs is multifaceted, with the primary role being to suppress top growth. This need is a season-long top priority to his selection and implementation of PGRs. Primo is his primary choice, and rates are adjusted along with windows of application, determined by factors such as weather, growth, fertility timing and member event schedules.

During specific times of the year, or under specific weather conditions, PGRs can take on secondary roles within Baldwin’s program. For instance, Proxy is added to the mix on greens/tees during Poa seeding windows, and Primo is replaced briefly by Cutlless on fairways during this same set of conditions. However, Primo is the primary PGR in play the vast majority of seasonal time.

Due to a severe DM1 resistance to dollar spot, Baldwin relies heavily on contact fungicides such as chlorothalonil. To him, it’s a logical assertion that by suppressing top growth and clipping production, the contact fungicide will remain at higher concentrations during the effective window.

“The combined plant health benefits and fungicide longevity have definitely improved my disease control,” Baldwin says. “I can’t say that my intervals have changed much since introduction of PGRs,
To improve the color and health of your tees, greens and fairways, you need to focus on the soil. Optimizing nitrogen availability and consumption takes place in the soil. Nutrient uptake is enhanced through the soil. Roots develop and strengthen in the soil. Prevail® fertilizers with tested and proven technologies work with your soil to provide healthier, greener turf. That's why at Spring Valley we are proud to offer our customers Innovation from the ground up.

To find your local distributor, contact Spring Valley Customer Service at 800-635-2123.

Visit springvalleyusa.com for more information.
but there is no doubt the efficacy of the fungicide and the plant health provides much less breakthrough towards the end of each interval. I’m fully convinced their use is synergistic for the plants and the combined improvements in plant health and fungicide efficacy lead to a better, healthier surface for my members.”

Bob Senseman, CGCS, from Oswego Lake County Club in Lake Oswego, Ore., uses PGRs combined with Proxy in the spring for seedhead suppression. By doing so, he says, he’s making the plant stronger and hopes to suppress disease development.

In an interesting twist, Senseman says he and an increasing number of superintendents who use Primo on greens are starting to curtail that use till after June due to an increase in anthracnose. However, he admits that science doesn’t support that PGRs actually stimulate anthracnose development – and Dr. Jim Murphy of Rutger University’s Department of Plant Biology & Pathology confirms that.

“A lot of superintendents were worried that Primo would be making the disease worse because that’s the most common summertime plant growth regulator used, but we just didn’t see that to be the case,” says Murphy. “Our research led us to believe that superintendents are better off staying with their plant growth regulation program in summer.”

Murphy and his team looked specifically at scenarios where superintendents had a lot of Poa annua on their greens and were trying to keep it alive and healthy. They did not look at Cutlass or Trimmit because those PGRs are generally used to get rid of Poa annua.

“Rarely did we see a negative effect or enhancing the disease,” Murphy says. “We usually saw not much of an effect if at all, and when there was an effect, more often than not it was positive. But the positive aspect was not so strong that I’m confident superintendents should use it for that purpose and expect something out of it. When you looked at how many times we
Ironic, isn't it?

That an abundant resource can also be so scarce. Two-thirds of the world is covered by water but the water you need to maintain your golf course is actually limited in supply, high in demand and costing more. No wonder you're under pressure to do more with less. More with fewer chemicals and fewer dollars too. Are you up to the challenge?

Resourceful

See how CIVITAS™ can help you do more with less.

Ask your distributor about our Money-Back Trial or visit civitasturf.com.
and ornamental product manager with SePRO Corporation, says superintendents have told him of the side benefit of suppression of this disease when using Cutlass or Trimmit—most likely because both products were originally screened as DMI fungicides. Still, he admits it's hit or miss. “I would not be using a PGR as a substitute for a fungicide, not even to the point of complementing a fungicide,” says Brotherton. “While it may suppress dollar spot, it won’t stop it from appearing or affecting turf. But it will reduce the amount or severity of it. I would suspect the university folks would say the same thing.”

Murphy’s standard advice to superintendents when it comes to Primo and anthracnose is that they might see a positive impact on reducing the disease—but don’t count on it. Also, don’t be afraid to use it because there isn’t much of a negative effect at all. “I would rather have the growth regulating effects you’re using that product for and not worry about any disease increase because it’s probably not going to happen,” he says.

When it comes to dollar spot control, Mark Brotherton, turf and ornamental product manager with SePRO Corporation, says superintendents have told him of the side benefit of suppression of this disease when using Cutlass or Trimmit—most likely because both products were originally screened as DMI fungicides. Still, he admits it's hit or miss. “I would not be using a PGR as a substitute for a fungicide, not even to the point of complementing a fungicide,” says Brotherton. “While it may suppress dollar spot, it won’t stop it from appearing or affecting turf. But it will reduce the amount or severity of it. I would suspect the university folks would say the same thing.}

PGRS: Just the facts

29% Percentage of superintendents who indicated they found value in using PGRs for disease suppression.

How do you use PGRs?
- Regular application schedule developed in advance
- Apply on an as-needed basis
- Spot usage

Where are PGRs used?
- Greens and fairways
- Greens only
- Greens, fairways and roughs
- Fairways only

SOURCE: GCI research
INTRODUCING TOUR PRO
WIDER, SMOOTHER, MORE VERSATILE AND BUILT TO LAST!

LOOK AT THE DIFFERENCE!
(Choose 20” or 25” heads)

IT'S TIME TO GO PRO!
- DISCOVER THE ALL-NEW TOUR PRO TODAY!
- PLUS THE BEST, MOST DURABLE RAKE HANDLES in golf!
  Upgrade with rugged GATOR GRIP handles (60” or 72” long)
  and eliminate splinters, chipping, peeling or cracking.
  (Fits Tour Pro, Tour Smooth II and Par Aide Accuform® rakes.)

CALL TODAY!
1-866-743-9773 | WWW.STANDARDGOLF.COM
They're not curative by any means or even preventative – they're suppressive. It's not going to be whether you see it or don't see it, it's the magnitude at which you do see these outbreaks. You either have to have treated/untreated areas with PGRs or treated/untreated areas with fungicides. Basically, you have to something to compare it to.

Gabe Menna of Centre Hills Golf Club in State College, Pa., is one superintendents who saw a reduction in dollar spot – specifically, 20 percent less in the plot where he applied Musketeer. He applied a mid-rate of Cutless, Legacy, Trimmit and Musketeer on his nursery green (75 percent bentgrass, 25 percent Poa annua) every three weeks during a high-pressure dollar spot season. Menna wasn't even looking to suppress dollar spot, but found it was a side benefit.

"The main thing we were searching for was growth regulation since we have such little Poa in our fairways," says Menna. "We looked often and didn't see much difference in any category we were searching for. We had a rep in town and was showing him our testing plots on our fairway nursery, and he didn't notice much either but he pointed out that the dollar spot was less in the Musketeer. It still had dollar spot, but it had less than the other areas. We didn't take any pictures and didn't document anything or take any percentages of dollar spot at the time because it wasn't really what we were concerned with from our test. For me, it was really just seeing if there was any reason to switch from Trimmit, which is working well for us for color and growth regulation."

Kyle Erdige of Timber Banks Golf Club in Baldwinsville, N.Y., also believes he gets an ancillary benefit of dollar spot suppression when using PGRs – again, Trimmit, as it was originally formulated to be a DMI. But he admits his situation is a little different than other superintendents in that his bentgrass is somewhat resistant to dollar spot. "The varieties of bentgrass I have in my fairways are not 100 percent dollar spot resistant but have done very well in trials as far as not getting dollar spot compared to other bentgrasses on the market," he says.

The rate Erdige uses his PGRs is a little higher than what most superintendents use but still within the label recommendation. Still, he says he asked a couple researchers if he should be worried about DMI resistance, and they said no. "The rate I'm using isn't quite as high as a true regular fungicide DMI, so they said I shouldn't see any resistance from it, and I was glad to hear that," he says.

Erdige has been using PGRs to keep Poa from encroaching on the turf since 2010, and he plans on keeping with the program. GCI