

# USGA<sup>®</sup>

## In The Field



GPS-guided sprayers apply products only to desired target areas. A computer controls the nozzles to ensure precise and efficient applications.

## GPS TECHNOLOGY TAKES COURSE MAINTENANCE TO THE NEXT LEVEL

St. Louis Country Club | St. Louis, Mo.

Tim Burch, superintendent

John Daniels, USGA agronomist

These days, technology seems to be advancing faster than ever. As a result, golf course superintendents are always on the lookout for new products and equipment that can help them improve playing conditions and conserve resources. At St. Louis Country Club, Superintendent Tim Burch was intrigued by the potential benefits of GPS-guided sprayers. After talking with USGA Agronomist John Daniels, he felt the time was right to upgrade to the new technology. However, because of the expense involved, Burch knew that he and Daniels would need to clearly communicate the benefits to justify the investment.

“John was out for a Course Consulting Service visit and did a great job explaining to our golfers the value of investing in this new technology. It really helped to have the perspective of an outside expert – someone

that visits a lot of golf courses, knows what’s happening in the industry and sees how people are using new technologies. We needed a new sprayer as it was, so the timing was perfect. John explained that not only would a GPS-guided sprayer improve the quality of our applications, it was also going to help us save money over the long term. That got people’s attention.”

“Golf courses in the St. Louis area face intense pressure from diseases and weeds,” said Daniels. “Improving the accuracy and effectiveness of applications can make a big impact on playing conditions and the maintenance budget. That’s why Tim and I both felt so strongly that a GPS-guided sprayer would be a great fit at St. Louis Country Club.”

GPS-guided sprayers are a significant advancement because they greatly reduce the risk of human error during spray applications. Even the most skilled sprayer operators can miss an area or inadvertently overlap their coverage. These mistakes waste product and time and have the potential to cause serious turf problems. GPS-guided sprayers eliminate these issues because each individual nozzle is controlled by a computer that confines applications to desired areas and prevents overlaps and skips.

Target areas can be mapped by driving the sprayer around their perimeter or they can be mapped during the actual spraying process.

Once an application is entered into the computer it can be repeated with great precision, making it possible to perform all applications with more accuracy and efficiency. Using GPS technology also allows an operator to stop and resume an application in exactly the same spot. It also keeps track of how much product is needed to complete an application, helping to save time and reduce waste.



**GPS-guided sprayers allow the operator to map target areas and track which locations still need to be treated during an application.**

“One of our biggest challenges at St. Louis Country Club is managing weeds and undesirable grasses in our fairways and roughs,” said Burch. “In many cases, the products used to control these weeds require multiple applications to be effective, but it was extremely difficult to hit the same small areas scattered all around the golf course with each application. The GPS-guided sprayer maps our spot applications as they are performed and then we can easily repeat them.”

In addition, GPS technology makes it easy for Burch and his team to create and maintain check plots that either receive or don’t receive a particular treatment. This improves the entire agronomic program because they are better able to evaluate product performance.

All these improvements have yielded significant cost savings. Burch has been able to lower the annual plant protectant budget by \$15,000. While the initial investment was significant, the GPS equipment will

pay for itself after three years.

“Purchasing a GPS-guided sprayer was one of the best recommendations that John ever made. What he was seeing in his visits around the region showed him that it was the right time for us to make the investment and he was able to effectively communicate that to our decision-makers. I think that’s one of the biggest benefits of being a CCS subscriber - I’m able to talk through ideas with a USGA agronomist, benefit from their perspective and receive objective, honest recommendations that help us improve the golf course and manage our budget.”

“I’ve been a CCS subscriber for more than 30 years at two different facilities and it’s been a tremendous resource for me. It’s helped me keep up with current trends and new technology and helped me make great use of advances like GPS-guided sprayers.”