

# Using Data

## TO IMPROVE AGRONOMIC MANAGEMENT DECISIONS AND THE GOLF EXPERIENCE WITH ADAM MOELLER

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Data collection is a term often used in our industry and has been one that can be either confusing or distracting. It is easy to get lost in a sea of data and it can be hard to know what information is really important for daily operations. Adam Moeller, Agronomist and Director of the United States Golf Association (USGA) Green Section Education was able to shed some light on this hot topic at the recent Ontario Golf Course Management Conference in The Blue Mountain. Moeller guided the group of attendees through a presentation on data and the USGA's continuing efforts in helping superintendents and their facilities to make better and more informed decisions about how to best manage our facilities.

Moeller began by addressing the crowd to see who was using data; many attendees confirmed that they are using some form of data and collection at their facilities, but the way in which it is being used differed from property to property. Data can be used for making daily decisions, including but not limited to growth habits of greens, when to mow, and when to apply fertilizer. It was apparent from the start that data is important in determining many factors around our properties, but we must tailor it to our needs or we may get lost in the sea of data.

The USGA offers many tools to help with data collection that can help streamline the process for superintendents. Moeller focused mainly on the USGA's Deacon program. Deacon offers data collection tools that are tailored for superintendents who are looking to better understand their golf course. Moeller began with highlighting the USGA's GPS mapping services: they will provide a system and set it up where they track everything from a golfer's standpoint and in return, you receive useable data about golfer habits. One of the key takeaways from this whole presentation was the

idea that you need useable data. The data that the GPS service provides is golfer specific and tracks player traffic versus cart traffic. This service has players wear a tracking device that records whether they are walking or taking a cart before the round; the golfer is then entered into the system and has a profile with all the useful information about a player specific handicap, whether they are walking or taking a cart, and what tees they are playing from. The information received is a great tool to use when looking to make decisions for your golf course based around data collected from the end user. Moeller provided a great example of how to use data to inform forward tee projects or bunker projects where you have actual data that show how the user interacts with the golf course. Does it make sense to remove a bunker that is more penal for a high handicapper that is only in play for that user but is largely out of play for a low handicapper? This was a great example of how this data can be useful for a superintendent in presenting information about possible changes to a membership or committee.

Moeller moved on to showcase Deacon's abilities when it came to tracking surface management. The platform has the ability to fully integrate with your daily tasks by providing numerous measurable data points that can be used to make decisions and get a better look at what is happening on your golf course. It can be integrated with sensors in your greens to monitor moisture content, as well as weather systems, to give you even more data points to help you better make decisions around surface management of your golf course. It can greatly increase accuracy of applications and make decision making more streamlined, taking the guess work out of planning your programs.

The biggest takeaway from Moeller's presentation was when he asked, "what is data, and what are we doing with it?" From my own experience, it can be very overwhelming when information starts coming in and there isn't a clear goal in mind when gathering and using

data. Finding what it is that you are looking to use the data for is key because one of the big advantages to data collection is that it is a very effective tool for communication. By using tools like Deacon and Excel sheets, you can display data in a way that makes what you are trying to communicate clear to someone viewing it whether that be how much money and time it takes to rake a bunker or how reducing your nitrogen applications on greens reduces your overall expenditures when it comes to greens management, and how that has, in turn, affected the firmness and consistency of your putting surfaces. The possibilities to use it as a communication tool are endless.

At the end of his presentation, Moeller previewed new technologies that the USGA is working on specifically for data collection on golf courses with the introduction of a prototype golf ball called the GS3. It is filled with sensors and measures a variety of data features that are specific to how the game is played. The ball can measure trueness, smoothness, and firmness of the greens surfaces in a way not seen before. Although this golf ball behaves and rolls exactly like a normal ball would, it picks up large amounts of data points along the way that reflect more accurately what an everyday golfer would interact with. The possibilities with the technology are endless and it is continually evolving. It is being tested at a few facilities and will be a future tool that many superintendents will use as a way to better manage our properties.

Data collection is a major component in today's management of a golf course. Data-driven decision making can make a big difference in determining what is right for your property as we continue to move in this busy world of golf that has grown exponentially in popularity over the last few years. It is important that we are making the right decisions for our clubs and our departments, and data is a great tool to use to visually see what needs to be done to better manage our properties. ■