



## Data Collection At The U.S. Open

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*Collecting data helps characterize playing conditions and provides a sound foundation for making daily maintenance decisions and developing long-term strategies.*

**H**ow are maintenance decisions made at golf courses? Are decisions based on physical measurements of parameters such as soil moisture and green speed, or are they based on the emotions of golfers that may have had a bad round? Routinely measuring parameters that impact playability can explain a great deal about daily conditions at any golf course while helping drive key maintenance decisions. Gathering data that characterizes playing conditions and turf health is useful for all golf courses whether they are preparing for daily play or for the U.S. Open Championship.

Challenging, but fair conditions that test the physical skills and mental fortitude of the greatest golfers in the world are critical for a successful U.S. Open. Understanding the relationship between green speed, firmness and playability requires repeated collection of data that characterize playing conditions. That data is reviewed and correlated with observations of actual play during each day of the U.S. Open. This information helps guide maintenance decisions during the championship, leaving as little to chance as possible. Here are a few examples of how data is collected and used to make decisions during the U.S. Open:

- Green speed is measured multiple times each day with the USGA Stimpmeter® on every green. Generally, during the week leading up to the U.S. Open, green speed is measured hours before play early in the morning, again around noon and at the conclusion of play to monitor daily trends. During the championship, green speed



is measured before and after each round. All of these measurements are used to make decisions on mowing and rolling frequency, cutting heights and growth regulator applications.

- Putting green firmness is measured with a USGA TruFirm before and after play each day during the U.S. Open. These measurements are used to understand how firmness changes over the course of a day provide insight into the desired playing conditions.
- Putting green moisture is measured multiple times during each day of the championship and correlated with putting green firmness. Water is applied as needed to meet the needs of the turf and keep the greens from getting too firm.
- The USGA course setup team meets daily with USGA agronomists and the golf course superintendent to review and discuss this data and weather forecasts. During each meeting maintenance strategies are formulated for the day ahead.

The purpose of collecting data is to learn more about a golf course. This work is especially important at a new U.S. Open venue such as Erin Hills. Thanks to diligent data collection, the USGA championship team already has an idea of the desired ranges for green speed, firmness and soil moisture during the championship. The opportunity to collect data and correlate it to actual play equips agronomic teams with the knowledge necessary to manage course conditioning and provide a fair test.

Making decisions based on concrete data leads to better playing conditions for all golfers, including those at the U.S. Open Championship. Data collection for daily play does not need to be as extensive as it is during the U.S. Open, but routine measurements of parameters that affect playing conditions can help maintain quality course conditions and provide an enjoyable golfer experience at any golf course.