USGA CASE STUDY

Improving Management By Collecting Data

Cornelius, N. C. 28031

The Peninsula Club Jared Nemitz, superintendent

Issue

Growing and managing turfgrass at a high level requires more than just what the eye sees, or thinks it can see. Perceptions of a golf course can be highly subjective, and making decisions based on those perceptions can lead to trouble. It can also be very difficult to explain decisions when they are based on perceptions. At The Peninsula Club, Superintendent Jared Nemitz wanted to combine the "green thumb" of growing grass with hard data to make sound agronomic decisions and improve communication.

Action

The first step in this process was identifying data that would help make better agronomic and economic decisions. Mr. Nemitz and his staff began recording data for all cultural practices performed on putting greens, fairways and tees. Data was recorded about mowing, rolling, vertical mowing, spiking, grooming, aerations, painting and fertilizing. Weather conditions during these practices were recorded also and soil temperatures are recorded daily. Maintenance practices involving the putting greens are subject to the most intensive data collection. Key data includes:

- **Daily clipping weights** The clippings from a green mowed early in the daily rotation are weighed to provide information on how much the grass has grown.
- **Stimpmeter**[®] **readings** Stimpmeter readings are recorded on the same two greens every day. This allows green speeds to be consistently monitored, and helps the maintenance staff decide if any additional cultural practices are required.
- **Topdressing** Sand topdressing is essential to putting green quality and it is done often at The Peninsula Club. The maintenance staff records the amount of sand used in each application. This information helps the staff monitor their topdressing program and aids in communication to the membership.
- **Mowing, rolling and verticutting** Mowing, rolling, and verticutting are logged each time they occur.
- **Soil testing** Nutrient content and organic matter in the soil are measured periodically throughout the growing season to help make decisions regarding nutrient and chemical applications. This information also helps Mr. Nemitz plan how many aeration events are necessary to maintain appropriate organic matter levels.

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The data collected is compiled into a monthly agronomic report. This report allows the staff to scrutinize the data, and make observations and suggestions based on what is observed in the field.

Results

Gathering data about course maintenance practices has helped guide decision-making and improve communication with the membership. Mr. Nemitz feels that data collection has elevated the maintenance department into a scientifically-based agronomic department. Benefits that come with keeping good records and compiling scientific data include:

- Helping club leaders evaluate maintenance practices and course conditions in a more objective way
- Elevating the professionalism of the maintenance department and demonstrating that decisions are based on science and data rather than subjective opinions
- Improving the ability to measure results from inputs
- Applying only the inputs that are necessary
- Identifying correlations between cultural practices and course conditions
- Avoiding unnecessary cultural practices and wasted manpower
- Giving assistant superintendents valuable experience evaluating data and the corresponding results in the field
- Providing the membership with clear information about course conditions and maintenance practices

Implementing a rigorous data-collection program takes time and determination. At the outset, the process can seem overwhelming. However, once tasks are divided among the management team, data collection quickly becomes part of the daily operation. Mr. Nemitz recommends starting slowly and focusing on the most important agronomic practices in your operation. If certain data doesn't prove valuable, stop collecting it and focus on other areas. Mr. Nemitz says that collecting data required some adjustment at first, but now that it is part of the daily routine he and his staff hardly notice they are doing it.

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Collecting clippings from the same green every day offers valuable insight into how different practices and inputs affect turf growth.



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