Ten ways to improve turfgrass conditions

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Eagleton Golf Resort
1. Mow at the appropriate height with a sharp and well-adjusted mower

- ensures grass can be as healthy as possible
- optimizes the visual appearance
- keeps the surface smooth
2. Keep the soil as dry as possible

- with less water in the soil, there will be more air
- with more air in the soil, there can be a better root system
- with a better root system, there can be less frequent irrigation, and a better playing surface
the surface is green, but the soil is dry

bermudagrass, Thailand
this ideal golfing surface, where the ball can bounce and roll, is possible when soil is dry fine fescue, Scotland
3. Supply fertilizer, especially N, in amounts to produce the desired growth rate

- N controls growth, and special attention should be given to managing the N supply.
- With the desired growth rate, the appearance and the playability of the course will be optimized.
different grass species and varieties respond to N in different ways

C₄ grasses, Thailand
This grass has been invaded by weeds because the N rate is low.

Tifdwarf bermudagrass, Thailand
4. Manage the organic matter accumulation through topdressing and cultivation

- addition of topdressing sand mixes with organic matter to maintain a firm surface
- scarifying, verticutting, and core aerification also remove organic matter from the surface
Organic matter accumulation creates a soft surface

Tifdwarf green, Rota Island
5. Get more chlorophyll in the leaves

- more chlorophyll means the grass can capture more light energy
- 2 ways to have more chlorophyll: higher mowing height, and increased nitrogen supply
the rectangle of green turf has been supplied with more N than the surrounding turf
6. Roll the greens more

- rolling is an easy way to increase green speed
- rolling can allow turf to be mowed higher and less frequently, yet still be maintained at a faster speed
7. Collect data on fertilizer application, water use, mowing, & other inputs

- measuring what is done allows one to compare from month to month and year to year
- one can identify what works well, what target levels should be, and identify areas for improvement
- mowing height
- mowing frequency
- topdressing amount and frequency
- irrigation amount and frequency
- N-P-K supply monthly
- pest occurrence
- pesticide application
- playing performance (green speed, firmness, etc)
8. Play golf

- playing golf is useful in order to understand the playing characteristics of the surface
- by playing golf, a greenkeeper will more easily recognize and understand the type of surfaces that should be produced
Understanding the game and its rules is an important part of the greenkeeper’s job.
9. Test the soil and irrigation water

- know what is in the soil and the water
- identify possible problems before they happen
- avoid problems
Golf analysts often comment during weekend telecasts that the greens are getting firmer and faster throughout the day, especially if conditions are dry and windy. Other remarks may refer to the greens breaking towards a particular topographic feature, such as a lake, ocean, or valley. Viewers may also hear broadcasters assert that recent rains have slowed the pace of the greens. Other analysts will claim that the grain on the greens grows in the direction of the setting sun, thus the ball roll will tend to break toward the west.

Through experience conducting USGA Green Section Course Consultation Service visits and leading agronomic preparations for USGA amateur and professional championships, USGA agronomists have gained a scientific and practical understanding of the often misunderstood characteristics of putting greens. The objective of this article is to share our observations that ultimately may help the everyday golfer read greens with more confidence.

How do green speed, grain, and break affect playing conditions? What are the most common misconceptions?

GREEN SPEED
Comment: "The sun is shining and the wind is blowing. The greens are drying out and really speeding up today."

It seems every weekend when conditions are dry and windy, golf analysts will comment on the putting greens increasing in speed as the day wears on. Golfers of all abilities will be interested to know that regardless of heat, dryness, or wind, it is highly unlikely that the greens will gain speed.

Green speed measurements using the USGA Stimpmeter are collected...