USGA GREEN SECTION RECORD

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GROWING DEGREE DAYS - THE SECRET BEHIND NATURE'S CALENDAR

GETTING A HANDLE ON NATURE'S CLOCK

The late bloom, or half green/half gold stage, of common forsythia shrubs is used as a field indicator for peak populations of sexually mature annual bluegrass weevil.

Astute farmers have long used plants as natural indicators for seasonal biological events. The connection between the occurrence of plant growth stages with events that impacted crops and livestock was observed long, long ago. Phenology is the study of the link between historical climate and biological events, and there are many examples of such links that have been recorded over time. Temperature is one of the primary regulators of plant growth so, in essence, plant growth provides an indirect measure of accumulated heat.

Turf and landscape managers also use specific plants as indicators. One classic plant indicator relied heavily upon by turf managers in the U.S. is forsythia (Forsythia sp), and its bloom is used to schedule the application of preemergence herbicides for crabgrass prevention each spring. In the Northeast, forsythia is especially helpful because the late blooming stage of this flowering species correlates well with the presence of sexually mature annual bluegrass weevil adults. As such, many turf managers rely on forsythia bloom along with field sampling data to initiate control programs against this major insect pest of annual bluegrass. It goes without saying that plant indicators are most helpful when the particular plant grows on or close to your site. Read More

PLATING TEES AND FAIRWAYS WITH SAND HAS BEEN PROMOTED AS REDUCING MAINTENANCE COSTS WHILE IMPROVING PERFORMANCE AND PLAYABILITY, BUT IT HAS UNIQUE MANAGEMENT NEEDS OF ITS OWN

SAND CAPPING SOLVES EVERYTHING...OR DOES IT?

When aeration and topdressing programs properly dilute thatch accumulation, a rootzone free of organic layers is achieved. This soil profile exhibits excellent thatch management and blending of the new rootzone (sand topdressing and organic matter accumulation) with the sand-based construction mixture below.

Sand capping, or plating, golf course tees, fairways and even roughs with several inches of sand or a high-sand mix for improved turf health and drainage first began about 20 years ago. It gained merit from the positive results obtained, specifically in the Pacific Northwest, from heavy fairway sand topdressing programs designed to improve turfgrass growing conditions and drainage for fall, winter and early spring play. With heavy sand topdressing programs, golf facilities were able to build up a three- to four-inch layer of sand within a few years. Doing so provided excellent results as turf health improved, traffic tolerance increased and fairways became more accessible to play and maintenance following inclement weather. This prompted many architects to include sand capping in construction specifications for high-end golf facilities, and the trend began to expand more rapidly in the late 1990s and early 2000s. Currently, sand capping is emerging in many other parts of the world, especially on sites with poor quality soils. Are the results too good to be true? Does sand capping golf course playing areas solve all turfgrass management problems as so many believe?

Sand capping first appears to be the answer to achieve easier turf management and ideal playing conditions. Many believe if money is spent to plate the entire golf course with anywhere from 4 to 15 inches of sand (note that the depth varies significantly and is typically not based on laboratory testing) prior to final shaping and planting, then virtually every turf management problem and practice, such as aeration, will be all but eliminated. This is not the case for a number of reasons, and we will explore not only the tremendous advantages of sand capping tees, fairways and roughs, but also the disadvantages and where mistakes have been and are still being made with this process. Read More

REGIONAL UPDATES

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The USGA Green Section is broken into eight regions with each staffed by Green Section agronomists who work with golf facilities on care of the golf course. Every two weeks USGA agronomists provide updates outlining current issues of what they are observing in the field. Be sure to view updates from other regions and not just your own because featured ideas, techniques and solutions to problems often apply to other parts of the country.

NORTHEAST REGION

August is proving to be ideal for core aeration procedures and turf recovery following heavy rains and oppressive heat in June and July. Root systems were severely stunted this summer and greens lacking air movement suffered the most. Is it time to add fans to your equipment inventory?
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MID-ATLANTIC REGION

As summer comes to a close, now is the perfect time to core aerate and gear up for drainage improvement projects. Looking back, it's also a good time to ask what worked, what didn't, and what adjustments need to be made for next year?
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SOUTHEAST REGION

Four USGA Championships take place in the Southeast Region in 2013. A most prestigious event and something that will forever be remembered at any golf facility, hosting a USGA Championship provides an opportunity to showcase the golf course for the best amateur players in the world and for the membership to get involved as volunteers.
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FLORIDA REGION

Join us in Orlando from Sept. 9-12 for the Florida Turfgrass Association's 61st Annual Conference and Show. Education tracks are designed for all areas of the turfgrass industry, including a full-day golf course management session featuring four USGA Green Section agronomists.
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NORTH-CENTRAL REGION

Ever wonder what a 70-year-old bentgrass putting green would look like if it lay fallow for a season...no water, no mowing, no fungicide and no fertilizer? What was observed was just as surprising as what wasn't.
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MID-CONTINENT REGION

Another summer of extremes was experienced this year in the Mid-Continent Region, only this time it involved milder temperatures and flooding in some areas. Preemergent applications for Poa annua control should wait no longer and next up...conference season.
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NORTHWEST REGION

Three golf facilities in the Pacific Northwest are turning the catchphrase term "sustainability" into reality. Here's what we can learn from them.
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SOUTHWEST REGION

The rising cost of water, controlling bermudagrass encroachment in greens and whether or not to overseed fairways and roughs this fall are hot topics in the Southwest Region this August.
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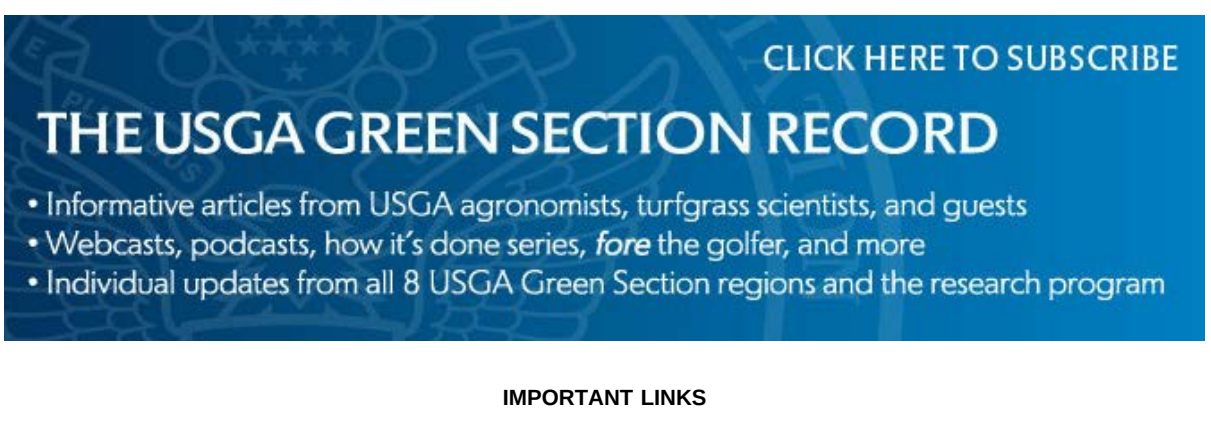

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