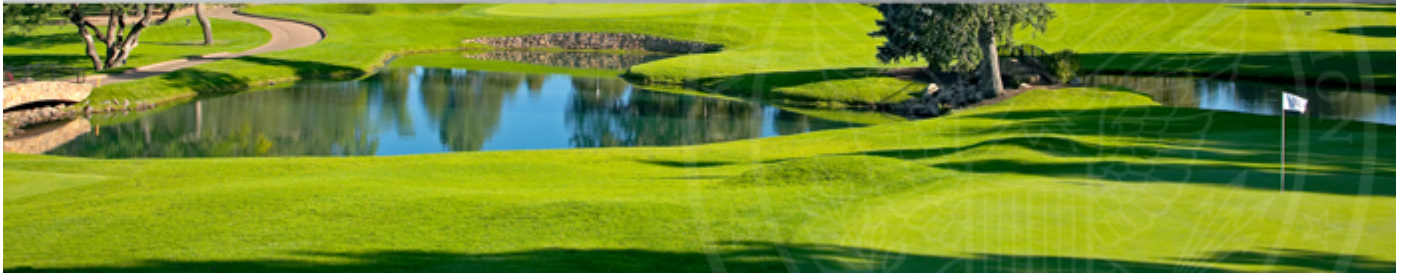




# GREEN SECTION RECORD



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## Selecting An Aerator To Enhance Water Circulation

**The proper type of water aeration can improve circulation and help lake quality, but it is far from a cure-all for ugly water features!**

by [Darin S. Bevard](#), senior agronomist, Mid-Atlantic Region



A healthy water feature can add architectural challenge and great aesthetic value to the golf course landscape.

Water features are an important part of architecture on many golf courses. Well-placed lakes and ponds add to the strategy of golf and provide penalties for errant shots. More important, water features collect drainage water from the golf course property and surrounding areas. Often, this water is the primary irrigation source on the golf course. Water features are an important aesthetic, environmental, and practical feature on golf courses. However, they can become an eyesore if algae blooms and other aquatic weeds transform them into a green mess. When this occurs, golfers become irritated and the perception of the golf course (and the superintendent in some instances) can suffer. A strategy to improve water quality as well as the appearance of the water feature needs to be developed.

[Read the rest of this article.](#)

# Fore The Golfer

## Practice Like A Pro

by [Ty McClellan](#), agronomist, Mid-Continent Region



Randomly scattered divots (on the left) remove up to 50% more turf than practicing in a linear pattern (on the right) where each new shot is placed directly behind the previous divot.

Late July is usually the time when there is a lack of turf coverage on practice range tees established with cool-season turfgrasses, such as creeping bentgrass or Kentucky bluegrass. Heavy play removes divots faster than the turf can recover, and hot, dry summer conditions leave little opportunity for seedling establishment or regenerative growth of surrounding turf. Poor turf coverage that comes in mid-summer generally indicates that the practice tee is simply undersized for the amount of play received, i.e. there is not enough time for turf to recover before tee stalls are returned to previous locations. It also indicates that tee stall rotations need to be reviewed for efficiency and that synthetic turf options should be considered at the rear of the tee to provide the additional time needed for turf recovery.

With the exception of an efficient tee stall rotation, enlarging the tee(s) and adding synthetic turf improvements are typically left for the off-season when time and funds become available. So, until then, what can be done? The solution resides with golfers. Since randomly scattering divots can quickly destroy a practice range tee, the better approach is to shrink one's divots by removing them in a pattern just like the professionals. More specifically, this includes placing each shot directly behind the previous divot. This can easily be repeated for up to 10 shots resulting in much less turf being removed.

Let's take a look at a practical example that was provided by Golf Course Superintendent Chris Pekarek at The Village Links of Glen Ellyn in Illinois. Mr. Pekarek estimates more than 2 million shots are taken annually from the 1.25-acre Kentucky bluegrass practice tee and that 1.5 million of the shots result in turf removal. Although divots come in all sizes, the average iron shot is believed to remove a divot 3 inches wide by 6.5 inches long for a total of 19.5 square inches. After just 30 shots, or a small bucket of balls, 4.1 square feet of turf are removed, given a typical practice routine ( $30 \text{ shots} \times 19.5 \text{ in}^2 = 585 \text{ in}^2 / 144 \text{ in}^2 = 4.1 \text{ ft}^2$ ). Therefore, after an entire season, 205,000 square feet of divots are removed from the tee. That's more than 4.6 acres of turf from their 1.25-acre surface.

[Read the rest of this article.](#)

64th U.S. Junior Amateur Championship  
Gold Mountain Golf Club, Bremerton, WA



# July 18-23

by the USGA Staff

The U.S. Junior Amateur is as big as it gets for the under-18 set, with a USGA Handicap Index of 6.4 or better required. It's the only USGA championship that Jack Nicklaus was eligible for but didn't win. Tiger Woods is the only multiple champion, winning from 1991-1993.

"Gold Mountain is a rare golf course for the Pacific Northwest and the USGA in two ways. First, it is the first municipal golf course to host the U.S. Junior Amateur. Second, while it was built within a forest and is surrounded by nothing but trees, trees generally do not come into play on any of the holes."

Larry Gilhuly, USGA agronomist

#### Golf stats:

- Course length: 7,133 yards
- Par: 36-36 - 72
- Course age - Opened in 1996
- Architect - John Harbottle III
- Last year's winner: Jim Liu over Justin Thomas, 4 and 2, at Egypt Valley Country Club in Ada, Mich.



#### Course Maintenance stats:

- Superintendent - Edward Faulk
- Asst. Superintendents - David Larson, Craig Byerly
- Crew size -22 (for 36 holes)and 3 part-time.
- Greatest course management challenge: Meeting the needs of, and staying out of the way of, approximately 100,000 golfers per year.
- Turfgrasses: Greens - *Poa annua*, Tees - Ryegrass/*Poa annua*, Fairways - Ryegrass/*Poa annua*
- Course make-up - Greens - 3.0 acres, Fairways - 32 acres, Maintained roughs - 45 acres, Naturalized areas - 20 acres.
- Environmental highlight - The course is built within the confines of a forest and offers great habitat for a wide variety of animals and birds.
- Championship parameters: Green speed: 11.5, Fairway cut:: 0.375 inches, Rough cut:: 4 inches

The USS John Stennis will entertain some 750 guests for the 2011 U.S. Junior Amateur players' dinner on July 17 in Bremerton, Washington. The 1,092-foot nuclear-powered aircraft carrier can hold up to 85 planes and stands 20 stories high from water level. (Tina Lamb/U.S. Navy). [Read more about the unique activities the Gold Mountain organizers have arranged for the competitors and their families.](#)

[Read more about this and other USGA championships](#)

## 63rd U.S. Girls' Junior Amateur Championship Olympia Fields Country Club, Olympia Fields, IL July 18-23

by the USGA Staff

First contested in 1949, the U.S. Girls' Junior Championship has been an exceptional predictor of future success: Winner JoAnne Gunderson Carner went on to capture multipole U.S. Women's Amateur and U.S. Women's Open titles, while Mickey Wright, Hollis Stacy and Amy Alcott all won at least one U.S. Women's Open. It's open to females under 18 with a USGA Handicap Index of 18.4 or better.

"Like many old clubs, Olympia Fields was faced with the challenge of modernizing their design to adjust to changes in the game, without losing the "bones" of the architecture that made them great. Olympia Fields has met this challenge with flying colors."  
*Ty McClellan, USGA agronomist*

#### Golf stats:

- Course length: 6347/6403 yards
- Par: 36-36 - 72
- Course age - Opened in 1915
- Architect - Tom Bendelow
- Last Year's Winner: Doris Chen over Katelyn Dambaugh, 3 and 2 at The Country Club of North Carolina in the Village of Pinehurst, NC.

#### Course Maintenance stats:

- Superintendent - Sam MacKenzie, CGCS
- Asst. Superintendents - David Johnson, Cory Von Tunglen
- Crew size - 44 for 36 holes.
- Greatest agronomic challenge: "Our property drains 19.5 square miles through Butterfield Creek. This year has been difficult with all the flooding. Last year we had flooding and heat which greatly enhanced disease pressure - specifically *Pythium*."
- Turfgrasses: Greens - Bentgrass/*Poa annua* mix, Tees - Pennlinks II and Penneagle II, Fairways - Pennlinks II and Penneagle II. Roughs - Kentucky Bluegrass and *Poa annua*.
- Course make-up - Greens: 3.5 acres, Fairways 28 acres, Naturalized and wooded areas - approximately 50 acres.
- Environmental highlight - "During the renovation of the South Course in 2007 we created a wetland that filters runoff water that enters the course (which is high in salts from the road salt used in the winter). This reduces the salt load in our irrigation water by more than half. We are also a certified Cooperative Sanctuary through Audubon International."
- Championship parameters: Green speed: 11 feet, Fairway cut: - 0.435 inches , Rough cut - 3 inches



The South Course at Olympia Fields C.C., a 1915 Tom Bendelow design, has been awarded the 2011 U.S. Girls' Junior Championship. (Courtesy Olympia Fields C.C.).

[Read more about this and other USGA championships.](#)

## Meet 20 Audubon Stewards

### A network of partners for education and outreach

by [Joellen Lampman](#), director, [Audubon Cooperative Sanctuary Program](#), [Audubon International](#)

One of our greatest pleasures at Audubon International is forging relationships with individuals across the world. Many of our most enthusiastic members are asked to be part of the Audubon Steward Network, which is comprised of Audubon Cooperative Sanctuary Program (ACSP) members who have volunteered to help Audubon International maintain local sources of support in their regions. As working partners with Audubon International staff for education and outreach, Audubon Stewards use their knowledge and experience within the ACSP to provide information and assistance to others who have registered or might be interested in ACSP programs. We would like to take this opportunity to introduce 20 of these dedicated individuals and share some of their thoughts about the ACSP for Golf Courses.

[Read the rest of this article.](#)



"The strongest part of the program is the initial environmental auditing requirements within the various categories. It makes one take a long, hard look at everything you do. This process also points out many obvious ways to make improvements. I have gained a tremendous sense of pride and satisfaction from doing things in an environmentally responsible way."

Marc Brooks,  
Stone Tree Golf  
and Fitness Club,  
Owen Sound,  
Ontario



## Regional Updates



### North Central Region *Probing For Healthier Turf* by [Robert "Bob" Brame](#), director



A soil moisture probe can prove invaluable in helping not only to identify moisture needs, but also to aid in staff training efforts.

watering much easier and it also helps get everyone on the same page. Is your course using a moisture probe to manage the turf where the game is played? If not, they are a proven value with far reaching dividends.

If water management is not the primary agronomic objective with respect to golf turf conditioning, it certainly is a primary objective. The benefits of pushing toward the dry end of the continuum suggest healthier and more dependable turf. Healthier turf and more dependable playability is an across-the-board combination of benefits, whether it be for a championship or routine conditioning. Clearly, turfgrass will die without water, yet too much water brings a quicker decline and is more difficult to correct. Managing to keep the surface and upper profile on the dry end requires hand watering and/or hand syringing to some degree. Outdated and inefficient irrigation systems require more hand watering and syringing.

The art of hand watering can be difficult to teach, which presents a dilemma. More and more courses are using soil moisture probes to address this dilemma, making it possible to put a number (volumetric water content) to visual observations. This makes teaching the art of hand

[Read the rest of this update.](#)



## **Northeast Region** ***The Summer Rolls On*** by [David A. Oatis](#), director

I can see it now; the summer of 2011 will wind up being 'average' when we total the year-end weather data, but for superintendents who manage turf, there really is no such thing as an average year. Last winter certainly was not average because winter injury was experienced in many parts of the region. This spring was not average because of the cool temperatures and tremendous rainfall. Many areas of the region now have gone several weeks without rainfall, and some areas have gone without rainfall for much longer. Once again, long-standing records will be broken for extreme weather, but the year-end totals will be 'average.'

Annual bluegrass weevil (ABW) activity seems to be in a lull for the moment, but the next wave of damage will appear at any moment. ABW populations were very high on many courses a few weeks ago, and, as has been the case annually for the last few years, we saw all phases of the insect at the same time at courses in the Met area. A combination of a much wider emergence window and resistance to the pyrethroid class of insecticides are the most likely causes. Control of ABW is more difficult now because different materials are required to control adults and larva, so it is essential to understand your populations. Knowing the percentage of ABW in the adult, larvae and pupa stages is essential to successful control. My best advice is to scout before and immediately after control applications so that you can target them more effectively and assess whether or not the control measures were effective. Based on what we have seen thus far, plan on ABW being a problem for the rest of the season.

Given all the wet weather experienced this spring, one also would suspect that summer patch may be prevalent this year. We just need some hot, dry weather to kick it off. If that occurs, beware.

**[Read the rest of this update.](#)**



## **Mid-Atlantic Region** ***Is Variety Really The Spice Of Life?*** by [Darin S. Bevard](#), senior agronomist

Travels in the region have generally yielded turfgrass that is in good condition, but they are beginning to show signs of stress. There are some notable exceptions, especially in southern portions of Virginia where some areas have been inundated with rain from heavy thunderstorms on an almost daily basis in the last week. In conjunction with high temperatures, putting greens are beginning to show decline with this challenging weather combination. Heavy rain, high temperatures and cool-season turfgrass do not go well together.

Various *Pythium* root diseases, take-all patch and bacterial wilt have all been reported as the cause of decline. If your golf course is in one of these areas that has received too much rain, remember that conservative maintenance practices are needed. As some possibilities:

- Height of cut may need to be increased and mowing frequency decreased.
- Fungicide intervals may need to be shortened, which will impact the budget.
- The greens may need to be vented with small solid or coring tines to improve air exchange with the soil and promote drying.

In short, some or all of these measures will be needed at your golf course to preserve the health of the grass. Softer, slower greens should be expected and accepted until weather patterns change. The alternative could be significant turfgrass decline. Remember, slow grass is better than no grass.

**[Read the rest of this update.](#)**



**Florida Region**  
***The Magic of Rain***  
by [John Foy](#), director



The magic of rain! Kyle Sweet, golf course superintendent at the Sanctuary Golf Club on Sanibel Island provided these dramatic before and after pictures of the 13th hole. Once the summer rainy season finally started, it has taken about three weeks for the seashore paspalum fairways and roughs to recover. A similar and even faster recovery has occurred with bermudagrass on other courses in South Florida.

Over the past two or three weeks, summertime thunderstorm activity has ramped up and brought very much-needed rain to South Florida. Unfortunately however, there are areas in the central and northern part of the state that are still experiencing record-setting drought conditions. The short range forecast from the National Weather Service calls for above-average rainfall for the entire region; and with this, the magic of rain will result in a recovery in turf health and quality. Although we still need a lot of rain to get back to normal, remember that there are management challenges when summertime thunderstorms result in a pattern of frequent and very heavy rainfall events.

Even when an adequate quantity of good quality water is available for irrigation, the growth response that occurs with rainfall is still much more significant. This is especially true after a prolonged period of no rain, and the pronounced growth response is at least in part due to flushing of salts out of the rootzone. However, one of the subsequent challenges of frequent and heavy rainfall is maintaining sufficient levels of available nutrients in the soil to support sustained, balanced and healthy turf growth. Both potassium and magnesium are extremely mobile in the sandy soils that are found throughout Florida. Thus, these key nutrients are quickly leached out of the rootzone by typical summertime thunderstorms that can dump 1/2-inch or more of rain in a very short amount of time. Over the next three or four months, frequent but light spoon feeding with potassium on putting greens, tees and fairways is advised to maintain adequate availability and in turn support photosynthesis, carbohydrate production and storage in preparation for the fall and winter months.

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by the *USGA Green Section Staff*

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