

Tips from the USGA

Frost, Firewood, and Winter Putting Conditions

USGA Green Section
December 2003

Fall is upon us and while most northern courses are preparing to close down, southern courses are growing in their winter overseeding. In either case, everyone will soon be hearing those famous fall and winter comments of "What do you mean we can't tee off until 9:30 a.m.?" "Can't you just turn the sprinklers on and melt the frost?" "But the thermometer at the bank down the street said 36 degrees... that's not freezing?"

Yes, it's the frost season again. It is sad but true that many golfers do not understand the importance of greens being allowed to thaw before play begins and, even

worse, do not appreciate the long-term consequences caused by placing concentrated traffic on turf that is not actively growing. We often attempt to explain in technical terms how cell walls and tissue are destroyed by sharp ice crystals when the weight of a golfer or mower is placed on the frozen plant. We tell players how cooler soil temperatures limit plant growth, hindering recovery from

traffic damage and opening the door for Poa annua invasion, in even the warmest winter climates. Unfortunately, we often feel these explanations fall on deaf ears.

Knowing that turfgrass leaves are primarily composed of water, it should then be easy to understand that the entire

plant (*internally and externally*) can freeze rapidly when temperatures drop. Maybe an analogy that golfers could more easily understand would be to compare the leaf of a grass plant to a paper straw filled with water. A frosted leaf would be similar to freezing the water

in the straw, while a "thawed" version would contain melted water. If you were to take the two (*side by side*) and bend them, the frozen straw would break and damage the "tissue" (*the paper of the straw*), while unfrozen example would flex unharmed.

The frost season is a great time to encourage cutting some firewood to warm your greens.

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STATE UPDATE

California DPR Increases Pesticide Fees

The Dept. of Pesticide Regulation (DPR) issued an emergency rule, effective Jan. 1, 2004, to increase a variety of pesticide license registration and renewal fees as well as the mill assessment rate on the sale of registered pesticide products. A new state law requires DPR to become primarily a fee-based funded agency. Most funding of DPR programs will now come from pesticide registrations, professional licenses and the mill fee, rather than the state's General Fund. The law allows DPR to modify fees for professional licenses by regula-

tion rather than being set by statute. The new fees apply to licenses that will be in effect during calendar year 2004. DPR can now charge fees for various activities related to its licensing program including issuing separate fees for conducting exams, approving continuing education courses and issuing duplicate licensing cards. The law allows licensing and registration fees to be adjusted annually and fees must be set at levels to cover department program expenses. DPR will conduct public workshops in 2004 to look at fee restructuring for 2005.

A Letter From Senator Boxer, "Saving Our Oaks"

For a decade, the majestic oak trees of California have been under attack by a disease known as "Sudden Oak Death." For almost as long, I have been working in the U.S. Senate to provide funding so that we may better understand this disease, fight its spread and protect this wonderful symbol of California.

I am pleased to let you know that the United States Senate has approved a request I made earlier this year for a total of \$5.7 million for research to stop the spread of Sudden Oak Death Syndrome, which has killed countless oak trees in Northern California. The funding comes from both the Agriculture Appropriations bill and the Interior Appropriations bill.

Sudden Oak Death was first discovered in Marin County in 1994. It has since killed many trees in California and threatens to change the landscape of California. There has been some good news in recent months, as scientists have discovered a new treatment that may slow the spread of the disease. We need to continue to expand research in pursuit of knowledge that will enable us to slow the spread of this disease, and that will lead us to find ways to prevent it from killing this significant symbol of California.

If you have questions or ideas about saving California's oaks or any other federal matter, I encourage you to send your message to <http://boxer.senate.gov/contact/webform.cfm>.

Sincerely,

Barbara Boxer
United States Senator

In The News

TheSCOOP

by Media Relations Consultant,
Emmy Moore Minister



Vince Keats Interview

GCSANC BOD Member, **Vince Keats** of Napa Valley Country Club was interviewed at the PGA Champions Tour event at Sonoma Golf Club in Sonoma, CA. Keats shared his thoughts on the multi-faceted role of today's golf course superintendent. He also spoke about the GCSANC's involvement in allied water efforts.

Stanford Supports Good Causes

(L) GCSANC Member **Ken Williams** made sure the course was in excellent condition for the "Golf for Business and Life" event at Stanford University Golf Course. Joining Ken are (L to R) PGA of America Community Relations Director **Earnie Ellison**, Stanford's "Golf for Business and Life" Program Director **Jim Miller**, and **Kurt Uchiyama** Program Instructor.

The tournament supported two good causes, Special Olympics and Stanford's "Golf for Business and Life" program.



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When the sun is positioned low on the horizon, long shadows cast from trees shading eastern and southern exposures have a significant impact on how early greens thaw and become playable. Golfers and club officials are probably more likely to approve the removal of trees that delay starting times than any other reason imaginable. Reducing early morning shade will not only melt frost and get players on the course earlier, but will help to maintain warmer soil temperatures improving winter and spring growth. Additionally, scientific evidence shows that early morning sunlight on greens is extremely important to grow healthy turf and deep roots. Compared with greens growing in cleared areas, those in shaded surroundings are much slower to respond in the spring and often enter summer in a weakened state.

Therefore, if your golfers are interested in getting on the course earlier in the morning and improving both winter and spring playing conditions, I have two suggestions: be patient and let the frost melt ... and cut some firewood to warm the greens.

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