"The standards handbook talks about what we’re going to do every year – the goals and how we’re going to meet members’ goals," Busch says. "Then we can be proactive with it and conduct a survey every year to see how we’ve met goals and develop a new set of standards."

More than anything, it’s about meeting members’ needs while providing them the facts about maintenance practices – especially unpopular ones like aerifying.

At The Power Horn, where Busch has been superintendent since 2007, the maintenance survey was conducted online via SurveyMonkey.com.

"We did it as a whole facility – not just the golf course," Busch says. "It went out to every member – I don’t have the exact number, but the response rate was pretty high, so it was pretty effective."

On the maintenance portion of the survey, the goal was to get "as much feedback as possible," Busch says.

"I talk to them on a daily basis, but I wanted to see what the majority of people wanted as far as certain projects and the direction they want to see the club go," he says.

To elicit those responses, Busch used a mix of ranking-type survey questions, but also open-ended questions and two very targeted questions he was particularly interested in gaining feedback on:

1. What are the two things we could do to improve the golf course?
2. What’s more important – a green golf course with wet spots or a fast and firm course with dry spots?

The results of question No. 1 didn’t surprise Busch – he knew bunkers were going to be the issue. And he took steps in the off season to mitigate some of the problems and communicate to members that a complete overhaul isn’t in the budget, but there are some things he has been able to do, such as eliminate and/or reduce the size of some out-of-play bunkers, add two mechanical bunker rakes to help soften bunkers on a daily basis and allocate more sand to be used in greenside bunkers to improve consistency.

But the response to question No. 2 surprised Busch the most. "They want the course to look good more than they want it to play well, which goes against everything we read as superintendents," he says. "So I was providing conditions they didn’t necessarily want."

Busch was grateful for some small suggestions members made – these are inexpensive fixes he made right away to show he’s addressing their needs. For example, one hole had a prism on it that measures distances, showing players how far they need to hit the ball to clear a creek.

"Some ladies asked for those on all the holes, which is something I hadn’t thought of," he says. "I was able to order those for less than $100."

OPPORTUNITY TO COMMUNICATE

For Greig Barker, golf course superintendent at Highland Country Club in London, Ontario, some programs will be tweaked, but much of the focus is on ramping up his member communication efforts.

The greatest thing Barker learned from the survey his club conducted last fall is that he’s already implementing many of the things his members want, but he isn’t sufficiently promoting those efforts or explaining the club’s policy on them.

For example, there was a comment in the survey that made him realize he needs to explain the process for practice facility maintenance.

"Someone said that every time they go out they’re on the mats," he says. "We put the mats out one day a week and that day alternates between Mondays and Thursdays." So, the person with the gripe may be experiencing an unfortunate coincidence in routinely playing on the mats; Barker recognized it’s an opportunity to better explain such processes.

The timing of the survey – late fall after the golf course was closed for the season – was such that a number of the requests were already taken care of but the members hadn’t been on the course lately to know that.

A green speed survey

When superintendent Mike Morris, CGCS, came to Thorn Nikolai with the question, "Is it possible to maintain a consistent green speed for an entire playing season?" that got Nikolai, turfgrass specialist at Michigan State University, thinking. He helped Morris implement a green speed program with a survey component, which he presented as part of the "You Asked for It... You Got It!" session at the GCSAA Education Conference last month.

Crystal Downs’ green chairman asked the questions, "What are the speeds day-to-day?" and "What’s the best speed for our golf course?"

To answer those questions, Nikolai and Morris developed a four-step process:

1. Determine daily speeds by collecting data;
2. Survey golfers to develop a target;
3. Evaluate maintenance practices; and

The first step, data collection, is typically easy to incorporate into the morning set-up process, Nikolai says. He recommends superintendents always measure the same area on the green. Morris collects data in both the morning and the afternoon, which is a great time to interact with golfers and get direct feedback from them.

The next step is surveying players, Nikolai advocates the “Morris Method,” which entails selecting a pool of about 20 golfers from a variety of different demographic groups (high handicappers, low handicappers, ladies, etc.) and asking them to rate the green speeds every time they play on the following scale: too slow, slow/OK, OK, fast/OK or too fast.

Morris and his team discovered that 80 percent of their golfers thought the greens were either fast/OK or OK when they were in the 9.5-10.5 range. So, that’s the a green-speed range they shoot for.

The third step entailed evaluating all the maintenance practices that would allow them to achieve the desired green speed and tweaking those practices as necessary.

The final step is communicating the results to players. The best way, Nikolai says, is a simple sign that says, "The established range of green speeds for this golf course is 9.5-10.5 or whatever it is." And then simply indicate whether the day’s green speed is below the range, within the range or above the range.

"They don’t need the actual numbers," Nikolai points out. He says many superintendents with members upset about green speeds begin this process and then stop several weeks in just because the members are satisfied that their needs are being paid attention to. Others follow through with all four steps and see great results.

"If you do it and they’re happy then you’re the hero," he says. "And that means you should make more money." GCI
Using Focus Groups
By Mike Vogt, CGCS

In combining focus groups with surveys, group members not only can help provide topics for surveys but importance rankings and survey question distribution. If you want to assess your members’ needs beyond simple questions and answers here’s how focus groups can help.

Focus groups are typically composed of four to five pre-screened members who meet criteria you specify. They are assembled in one room to discuss and react to specific topics relevant to your golf course business.

Consider this: You are planning your next year’s annual budget and would like to learn what your members think about conditioning on the golf course before bringing the plan to the board for approval. You could hire a company to conduct a survey beginning with a series of focus groups and a survey to follow but that can be very expensive. So how can you get this information more affordably? You can attempt to do it yourself.

Clearly, any research you do yourself will have limitations when compared to studies conducted by professionals, but if you are seeking some general guidance about important topics of interest, you can get good information for a nominal cost.

The goal is to explore the general attitudes of the participants to the topics selected for inclusion in the session and ultimately to aid in the construction of survey questions. Focus groups are intended to generate macro information, whereas quantitative survey research seeks to provide micro information. Use the focus group to help formulate your survey questions.

There is no rule as to the number of focus groups to be conducted on a specific topic but two or three groups of different age, handicap and gender usually will work fine. This raises one of the most important issues relative to the implementation of focus groups: the definition of the participants. In any focus group session it’s vital that the composition of the group is as homogeneous as possible in terms of key demographic characteristics. For example, if course conditioning is the topic there would be major differences in attitudes between high and low handicappers, social and full golfing members, men and women and participants who are under 35 compared to those over 65. Not only will the participants have different views on a topic, but getting participants to share their attitudes will be much easier if they are not placed in an environment where some might be intimidated by others due to age, skill of the game or gender. Therefore, it’s important to conduct at least one group with each constituent group of the same gender and of different abilities.

Before the focus group’s meeting, develop a very clear and precise written statement of the objectives for conducting the research. It’s essential to have a well-thought-out target for the study, which will form the strategic basis for the project. It could be titled, “The Importance of Conditioning as it Relates to Annual Budget Preparation at Pleasant Fairways Golf Club.” A brief explanation of the plan should accompany each written statement. Be sure to give these statements to each participant in advance of the meeting.

Create a discussion guide outline that contains all the topics you hope to cover in a focus group. The discussion guide is the most important tool in focus groups and is as vital to the novice as to the experienced moderator. The guide is intended to provide a logical flow to the discussion, so that all topics are covered and there is consistency across all the groups in a series relative to the information discussed. Golf course superintendents know the steps involved in different types of course conditioning, member golfers do not. Explanations of the differences in course conditioning and budget preparation are helpful in the discussion. To this end, it’s helpful to provide a time estimate for each of the topics as a guide for the moderator and to ensure that everything gets covered, but also for those interested in the output of the research.

Ensure the group does not go off on tangents, wasting valuable time. It is the responsibility of the moderator to direct discussions so that all topics are covered.

View the group discussion as a way to obtain interaction among the participants. It should not be a series of questions directed at each individual. One of the key benefits of the focus group methodology is to have participants react to each other as ideas are presented, so it is possible to determine the differences in attitudes among participants.

Finally, use write-down exercises to initially lock participants into a position about a particular topic, so they are not swayed by the effects of group dynamics in which a dominant personality can influence the flow of the discussion. Essentially, a write-down exercise is a vehicle whereby the moderator raises a topic (e.g., reaction to increase in green speeds) and each person in the group is asked to write their point of view in 30 words or fewer on a piece of paper prior to discussing the topic. If this is done, the participants will be more honest about their responses than if they were asked to respond to the question without having written down their views first.

Focus groups are helpful because the participants can be probed for the reasoning behind their opinions, and conversations can be generated around a particular topic, giving you what’s known as “rich data” as opposed to, for example, the finite answers you get from survey questions alone.

As the name implies, these are focus groups, keep the subject matter narrow to the immediate task at hand. For example, if you want the focus groups to guide you to areas on the course that need attention, in their opinion, ask the group a specific question and give them specific choices.

“In your opinion, what single maintenance item needs to be accomplished to help our club compete with other clubs in our region?”

1) Improve green speeds
2) Replace bunker sand
3) Add more cart paths
4) Renovate rest rooms on course
5) Level tees

Then, discuss these items and take copious notes. From the feedback you’ll discover the “hot button” items that should be uncovered from the focus groups passion about the subject as well as the solutions these members might have. Remember, bite your tongue; this is not the forum to rebut criticisms and comments!

Equal weight should be given to each group; so often the low handicappers are the driving force for change on the course. The women, juniors, seniors and weekend-playing high handicappers must be involved in the process or the questions placed in the survey will not be appropriate or statically valid for the good of the membership as a whole.
“Someone said the grass is very thin on some of the fairways and landing areas and that two dead trees needed to be taken out,” Barker says. “We had sodded the problem areas after the golf course was closed and we already had those trees marked.”

Similarly, a number of commenters asked about recycling — why aren’t there recycle bins on all the tees?

“Well,” Barker says, “We do recycle, we’re just doing it behind the scenes.

“I’d say 50 percent of the things we got suggestions about we’re already doing — they just don’t know about it,” Barker says.

Overall, the survey showed Barker there was an opportunity to improve communications. To do so, he’s planning a series of posts on his blog, highlandccgroundsdept.blogspot.com, to directly address comments and complaints that arose in the survey.

“I’m going to start explaining all of our processes for everything now,” he says. “Maybe all of these people aren’t reading the blog yet, but at least the information will be out there.”

When questions arise Barker, staff members or other club members can point them to the blog to see what the policies are.

Highland’s survey takes place facility-wide every three years. A third party conducts the survey online, tabulates the results and formats report cards for each department. For golf course maintenance, 10 categories were evaluated. Barker’s not sure of the exact costs because it doesn’t come out of his maintenance budget.

BLIND SURVEY?

“I give our GM a lot of credit,” Barker says. “When they launched the survey they said for members’ comments to be included, they had to attach their member number to the comments. So I can see who it’s coming from and say, ‘I noticed you commented about X, and this is why we do things this way.’ It keeps people from putting ridiculous comments and you can take them into context. We have over 500 members. If we make everyone happy, we’re probably in more trouble than we know. A private club does require a lot of communication — it really helps to know if that one person is never going to be happy. They could ruin your day every day.”

At the Powder Horn, the survey was completely blind — with no members’ names or numbers attached to the results.

“I think it gave them a chance to be anonymous and voice concerns without us thinking less of them,” Busch says. He adds that the open-ended survey questions likely got a better response because of their anonymous nature. “I thought there were some things people would just go off about, but everything was really constructive. Surprisingly, there was nothing rude at all.”

All in all, Barker applauds Highland’s board for conducting the survey. “Our club is doing relatively well for these times,” he says. “Our board is doing what they should be doing — working for the membership.”

For a sample copy of a golf course conditions survey from consultant Mike Vogt, CGCS, visit, scribd.com/doc/27353301/Golf-Survey-Conditions

PUTTING A NEW SPIN ON GRINDING

Spin or relief, everyone agrees… quality of cut is what it’s really all about. For “spin only” operations, nothing beats a Foley for speed, accuracy and ease of use. And for relief grinding, Foley’s hands-free “auto-index” relief system means you can perform other tasks while the machine does the work. No matter how you grind it, Foley makes it easier and faster to keep your reels performing like new.

You Can’t Be Too Sharp.

www.golfcourseindustry.com/readerservice - #43
How carrier water quality influences pesticide stability.

By Dara Park, Ph.D. & Juang-Horng ‘J.C.’ Chong, Ph.D.

Tank-mixing pesticides and fertilizers is a convenient and cost-effective way to apply two or more chemicals at once. When done appropriately, tank-mixing can reduce labor and equipment costs, and save time and energy. Carrier water is the water you put in the tank to dilute your chemicals and to apply them with. Carrier water makes up about 95 percent of what you apply. Certain water chemistry can potentially react with, and change the efficacy of, pesticides in both positive and negative ways. This article will discuss the origins of water chemistry, and how to take a water sample and determine the water quality. This article will also discuss the influence of and the remedies for common problematic water components.

ORIGINS OF WATER CHEMISTRY
The chemical and physical properties of minerals (i.e. mineralogy) and weathering influence water chemistry. Weathering is the decomposition process of rocks, minerals and soils by physical (for example, degradation by microorganisms and cracking by ice formation) and chemical (reactions between water and minerals) processes. Weathering results in different compounds as solutes and or particulates within the water column.

Here is an example of how mineralogy and weathering may influence water chemistry in South Carolina: Limestone, composed of mainly calcium carbonate ($\text{CaCO}_3$), is the underlying bedrock along coastal South Carolina. During each rain event, water combines with carbon dioxide in the atmosphere to form a weak acid called carbonic acid. As rain water passes over and through the limestone, the acid combines with the calcium carbonate to form calcium bicarbonate ($\text{Ca(HCO}_3\text{)}_2$), which is dissolved in the water. Calcium carbonate and calcium bicarbonate are the two principal causes of hard water.

Water chemistry is also influenced by the sources of water. Saline aquifers, tidally influenced streams and rivers, reclaimed stormwater runoff, and reclaimed wastewater have a considerable amount of salts and other particulates.

HOW TO TEST WATER SOURCES
Use opaque plastic containers to collect your water sample. Rinse out the bottle three times with the water you will be sampling before you take the actual water sample. Place your name, location, and date on the sample bottle with a permanent marker. Place the water sample in a cooler or refrigerator until delivering to the laboratory. Make sure to submit the sample within 24 hours of collection. Regardless of which laboratory you send your sample to, you should receive an interpretation of results as part of your report. Some water components can be determined on site with relatively little expense and will be discussed in the following sections.

COMMON PROBLEMATIC WATER COMPONENTS

PH
What is it?
$pH$ or Potential of hydrogen is the measure of the concentra-
WATER CHEMISTRY

tion of hydrogen ions (H+) and hydroxide ions (OH-) in a solution. It is measured on a logarithmic scale of 1-14 with 1 = acidic (dominated by H+ ion), 7 = neutral, and 14 = alkaline (dominated by OH- ions). Water pH fluctuates diurnally (from photosynthesis and aerobic respiration) and seasonally (from increased rainfall, leaf litter, etc.). Over long periods of time, water pH tends to become more alkaline.

How does it influence pesticide efficacy?
Certain pesticides undergo chemical breakdown in alkaline water (pH more than 7). The reaction is termed alkaline hydrolysis and the severity and speed in which it occurs is dependent on the pesticide, the alkalinity of the water, the length of time the pesticide is in contact with the water and the water temperature. Insecticides, particularly organophosphates and carbamates, are more susceptible to alkaline hydrolysis than other pesticides. In comparison, sulfonylurea herbicides are more susceptible to acid hydrolysis at pH less than 6.0.

How to keep it from becoming a problem?
Check pH regularly and add buffering agents to carrier water whenever necessary. A pocket pH meter is relatively inexpensive and easy to operate. Test the water pH before adding any chemicals. Always read the pesticide label and check the pesticide MSDS for the recommended pH range. If correction is needed, add a buffering or acidifying agent before adding the pesticide. The acidifying agent may include acid-forming nitrogen fertilizers, straight acids and may or may not be used in conjunction with surfactants. Always apply the tank mixture as soon as possible. Buffering agents should not be mixed with fixed copper and lime fungicides; otherwise, plant damage will occur.

SALINITY

What is it?
The concentration of mineral salts (for example, MgSO4, MgCl2, CaCl2, NaHCO3, NaCl, KCl) dissolved in water. It is measured by electrical conductance (EC) and is commonly reported in either dS/m or mmhos/cm.

How does it influence pesticide efficacy?
Salty water is alkaline and more resistant to pH changes, making adjustments with acids more difficult. Salinity of over 0.75 dS/m can stress sensitive plants and reduce absorption of systemic pesticides through plant roots. Besides what has been mentioned, not much is known about how salinity influences pesticide efficacy, or if it does at all. However, we are aware of instances in which a pesticide failed and the only water problem possible was salinity.

How to keep it from becoming a problem?
Check the salinity in your carrier water if you use water from reclaimed or tidally influenced sources. Pocket EC meters are inexpensive and easy to use. Combination Temperature/ pH/EC pocket meters are slightly more expensive but still reasonable. Always read the pesticide label and check the pesticide MSDS.

Face it. Whether you spin grind or relief grind, you still have to grind to maintain quality of cut. With Neary grinders you can spin or relief grind — easier, and for less money. Neary grinders feature convenient one-time set-up, easy familiar operation, and our patented auto-index system for hands-free blade-to-blade grinding. And while Neary does the grinding, you're free to be productive somewhere else in the shop. For a quick grind, see your nearest Neary distributor.

Table 1. Recommendations on the uses of selected fungicides, herbicides and insecticides in carrier water of problematic quality. The effects of water hardness and salinity on fungicides and insecticides are poorly studied; thus, the compatibility should be tested before mixing.

<table>
<thead>
<tr>
<th>Common Names</th>
<th>Brand Names*</th>
<th>Acidic (pH &lt; 6)</th>
<th>Alkaline (pH &gt; 8)</th>
<th>Muddy</th>
<th>Hard</th>
<th>Saline</th>
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<td></td>
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<td>azoxystrobin</td>
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<td>Terrazole</td>
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<td>✓</td>
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<td>✓</td>
<td>X</td>
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<td>Manzate</td>
<td>NR</td>
<td>NR</td>
<td></td>
<td>Test</td>
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<td>Test</td>
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<td>NR</td>
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<td>diquat (&amp; paraquat)</td>
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<td>RoundUp</td>
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<td>Sevin</td>
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<td>clothianidin</td>
<td>Arena</td>
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<td></td>
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<td>Merit</td>
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<td>indoxacarb</td>
<td>Provaunt</td>
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<td>✓</td>
<td></td>
<td>Test</td>
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<td>✓</td>
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<td>trichlorfon</td>
<td>Dylox</td>
<td>✓</td>
<td></td>
<td>X</td>
<td></td>
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</tr>
</tbody>
</table>

*Brand names are provided as examples. Mentioning of any products should not be considered as an endorsement. Key: ✓ = OK, X = Do not use. NR = Not recommended but use soon after mixing if there is no alternative. Test = Test for compatibility.
to see if any precautions should be taken. Sometimes salinity is reported as total dissolved salts (TDS). Most pocket EC meters will give you the option for either an EC or TDS readout. If a saline water source is used, an alternative water source should be identified for permanent use or for blending with the saline water.

Agitators and injection tanks can be installed for water treatment with calcium or sulfur. Ask your extension agent for more information.

**WATER HARDNESS**

What is it?

Hard water contains a high concentration of magnesium (Mg$^{2+}$), calcium (Ca$^{2+}$), and Ferric ions (Fe$^{3+}$). Water hardness is reported in ppm of CaCO$_3$ equivalent. Water <50 ppm is considered "soft," 50-100 ppm is considered "medium hard," and 100 - 2000 ppm is considered "hard."

How does it influence pesticide efficacy?

Hard water won't lather with soap. The cations in hard water bind with the pesticide molecules (one cation can bind more than two susceptible pesticide molecules) to form insoluble salts and precipitate out of solution. 2,4-D, dicamba, glyphosate and clopyralid are susceptible to binding with hard water. Hard water can also reduce the efficacy of some surfactants and agents added to clear turbid water. Precipitates and scales formed in the sprayer can clog the nozzles and filters.

How to keep it from becoming a problem?

You will have to submit a water sample to a laboratory to test for hardness. Always read the pesticide label and check the pesticide MSDS for any precautions.

If correction of water hardness is needed, add an agent such as those containing sulfate, organic acids and non-ionic surfactants. Sulfate (SO$_4$) and organic acids are often used to bind with the hard minerals. Non-ionic surfactants are commonly used to enhance herbicide efficacy but it should be noted that these will not correct the problem, and another agent still needs to be used. The agent should be mixed with the carrier water before adding the pesticide. Other options are to decrease the volume of carrier water and to use a higher label rate. Spray the tank mixture immediately.

**SOLIDS**

What is it?

Particulates of clay, silt and organic matter that are disturbed by water movement and brought into the column. Large particulates will eventually settle to the bottom but small particulates can suspend in the water column. Collectively, the total amount of particulates is known as turbidity and is commonly reported in Nephelometric Turbidity Units (NTU). The small particles that remain suspended are referred to as total suspended solids and are reported in mg/l.

How does it influence pesticide efficacy?

These particles are both chemical and physical nuisance. Clay and silt can bind with pesticide molecules. The organic particles not only bind with pesticides but also harbor microbes that naturally degrade pesticides. The particulates can also clog filters and nozzles.

How to keep it from becoming a problem?

To get an actual value of turbidity, a water sample will have to be submitted to a laboratory. The easiest way to test for a problem is to drop a quarter at the bottom of 5-gallon bucket of the water. If you cannot see the coin, then the water must be treated. Always read the pesticide label and check the pesticide MSDS for any precautions on using dirty water. An inline filter can be installed to remove suspended solids. If the pump is within a surface water body, make sure that the location of the intake is not at the very bottom or close to the top of the water column. Locate an alternative water source for permanent use or to blend with turbid water. Additionally, agents can be added to help precipitate and clear the water.

**IRON**

What is it?

It is the sixth most abundant element in the universe and is the fourth most abundant element in the earth's crust (although not commonly found in the free metal form). Iron is dissolved as water passes through the underlying rocks. The concentration of iron is reported in mg/l.

How does it influence pesticide efficacy?

In the air or water, iron reacts with oxygen to form rust (oxide and hydroxide forms of iron). Rust forms faster in the presence of salt (as in certain pesticides or within the carrier water). The rust can cause reddish-brown staining. Iron also combines with organic materials and bacteria to produce slimes. Rust flakes and slimes can clog nozzles, filters and lines.

How to keep it from becoming a problem?

A water sample will have to be submitted to a laboratory to get an actual value of iron concentration. Stains can appear at concentration as low as 0.3 mg/l. Treatment for excessive iron will depend on the type of problem that exists (stains, deposits, or slimes). The most common techniques include aeration followed by filtration, the use of a water softener (caution: these usually use sodium), and the use of potassium permanganate and chlorination followed by filtration. Contact your extension agent to help decide which is best for you.

**TAKE PRECAUTIONS**

Always check your pesticide label and MSDS for recommendations and guidance. If you still have a question, contact the company representatives or county extension agents. Table 1 summarizes the effect of water quality on the most commonly used and more recent pesticides.

If the irrigation source exhibits one of the above-mentioned water problems, and the pesticide requires water in after application, the irrigation water should be treated as well. This can be done by installing inline injection tanks.

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Tank-mixing pesticides and fertilizers is a convenient and cost effective way to apply two or more chemicals at once.

Dara Park, Ph.D., and Juang-Horng 'J.C.' Chong, Ph.D., are assistant professors at Clemson University's Pee Dee Research and Education Center in Florence, S.C. Reprinted with permission from "2009 Clemson University Pest Control Guidelines for Professional Turfgrass Managers." (continued on page 75)
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How to fix common meeting pitfalls to make your team more productive. By Kimberly Douglas

I t's Friday afternoon, and your team is filing into the conference room, mumbling and grumbling as they take their seats for yet another meeting. An hour passes and the meeting comes to a much-anticipated end, leaving everyone involved wondering why the meeting was held in the first place.

In these tough economic times, every second of the work day is valuable. None of it should be wasted in meetings that seem to go nowhere or that are plagued by conflict or lack of participation.

If leaders know how to conduct better meetings, those meetings can actually become time well-spent — time that increases employee productivity, participation and innovation.

Meetings have become a way for leaders and their employees to simply go through the motions. Having a meeting, in and of itself, is not a bad idea. In fact, meetings can be the most engaging and thought-provoking times of the day for team members.

The key is avoiding those pitfalls that sink a meeting’s productivity.

WHAT'S THE POINT?
A common problem with many meetings is that they're scheduled with seemingly no clear objective in mind. Run through a pre-meeting checklist before putting it on everyone's schedule. First, ask yourself whether the meeting is even necessary. Could the information you want to provide be just as easily presented in an e-mail? What do you want to accomplish with the meeting? Will reaching that accomplishment really require a group decision? If you ask yourself these questions and decide that you do need to have the meeting, next consider who should attend. Design an agenda for the meeting, and clearly communicate any prep work that needs to be done by the participants beforehand.

WHERE'S THE AGENDA?
Remember the last time you actually received an agenda in advance of a meeting?

Likely, you immediately had a higher perception of whether that meeting was going to be a waste of time or not. Once you know who will be attending the meeting, you need to finalize the agenda. A quality meeting agenda includes:

- The date, time and location of the meeting;
- The meeting's objectives;
- Three to six agenda items, accompanied by how long they'll take to discuss and who the discussion leaders will be; and
- A clear explanation of the prep work that should be completed before the meeting.

It is OK to use standing agenda items from meeting to meeting — such as company overview, industry trends, strategy discussion, review of metrics, results and problem solving — as long as you also include the length of time allotted for each item and who will be leading the discussion.

Send the agenda out as far in advance of the meeting as possible, and then re-distribute an agenda/meeting reminder 48 hours prior to the meeting.

CONFERENCE ROOM OVERCROWDING.
Would you attend a meeting if you didn't know why the meeting was being held and why you, in particular, were invited? Often, too many people who don't have a clear understanding of what role they are supposed to play are invited to meetings. Those in attendance need to know if you want them to be an expert, an influencer or a decider.

Keep the number of "required" attendees as small as possible. And if critical members can't attend, consider postponing the meeting until they can. Having a meeting without all of the right brains present can cause just as many delays and productivity problems as postponing the meeting a couple of days.

Finally, use the following litmus test. Ask yourself: Will this meeting be the best use of this person's time, given our objectives? If you answer yes, then it's highly likely that person should be there.

Or, use a meeting cost calculator, which allows employees to privately enter in their salaries and the meeting length to calculate how much it is costing the company for them