Aerification Survey-
(Continued from Page 19)

I aerate tees in the spring and in the fall. I aerate greens in the fall. Aerate, remove plugs, top dress, drag in and blow off. I aerate fairways in the fall.

- Dan Hill
Birnamwood Golf Course
Burnsville

We aerify our greens once a year in the fall alternating between quarter-inch quad tines one year and three-quarter-inch deep tine the next year. During the summer months, the hydroject and small verti-drain with needle tines are used as needed. We try to topdress the greens lightly every three weeks with silica sand. Tees are done twice a year with 5/8-inch tines. Fairways are done once a year in the fall with three-quarter-inch tines.

- Bill Larson
Town & Country Club
St. Paul

In a typical season I aerify my greens twice a season on the dates of mid-May with 1/2 inch hollow tines and topdress till holes are filled (every one!) and typically recover in 10 days, just after Labor Day. I aerify with 5/8 inch solid tines 10 inches deep-tine and topdress till holes are filled and recover within 7 days. I do not linear aerate. I will also "spot" deep-tine with 5/8 solid tines in poor drainage areas of the greens just before closing the course and leave the holes open, with good results.

-Marlow Hansen
Forest Hills Golf Course
Forest Lake

In a typical season we aerify our greens one time per year around the second week of September using 1/2" solid tines at a depth of 10 inches using the Redexim Verti-drain. We follow with a light to medium topdressing with fine masonry sand. We backfill with sand. Our recovery time is about 5 - 7 days.

-Tom Notch
Bent Creek Golf Club
Eden Prairie

In a typical season I aerify my greens three times: May 23, September 12 and late fall using 1/4" hollow tines and back fill with seed/sand mix and topdress 2-3 times throughout the summer. I recover typically in 5-7 days to a condition similar to just prior to aerification.

- Bob Distel
Wayzata Country Club
Wayzata

In a typical season I aerify my greens once in late October, using .4" quad tines with 1.5" x 1.5" spacing. I backfill with silica sand as well as light topdressing every two weeks. I do not linear aerify. I recover typically in mid-April.

-Izaty's Resort
Isanti

We aerate two times a year, early May and the day after Labor Day. I rotate the type of aeration during spring from linear to deep tine 1/2" tines at a depth of 6". Filled with sand – heavy amounts. Throughout the year, as needed, I will needle tines selected greens. I light topdress every Wednesday, followed by vibratory rolling. Fall aeration is larger tines and I will core 5/8 or 3/4, some years I deep tine 3/4 at depth of 9", followed with sand. Recovery depends on Mother Nature. Typically in spring 7-10 days. Fall typically 7-14 days.

-I have also aerated late October to leave holes open for winter to help get water down into ground as opposed to having water sit on top of green surface.

-Tom Proshel
Bracketts Crossing Country Club
Lakeville

In a typical season I aerify my greens once in the spring around May 10 using 1/2-inch hollow tines about four inches deep. We fill the holes with straight sand although not all the holes will be filled to the top. The greens recover about two to three weeks depending upon the weather. I do not linear aerify.

-Thomas Fischer, CGCS
Edinburgh USA
Brooklyn Park

In a typical season I aerify my greens twice on the dates mid-May and late September, using 3/8" -sized tines and back filling with washed mason sand. I recover typically in 5 - 7 days to a condition similar to just prior to aerification.

-Mike Stone
Crosswoods Golf Course
Crosstake

I aerify my greens in mid-September using a 7-inch bayonet tine to open up the surface. I follow that with rolling and topdressing. Minimal disruption, complete recovery in a couple weeks.

-I manage my thatch with regular topdressing, light verticutting and brushing throughout the season. I have not pulled cores to date (course is five years old).

-Mike Nelson
Dacotah Ridge Golf Club
Morton

In a typical season we core aerify greens one time, usually the second week of September, using either 1/2" or 5/8" hollow tines. We backfill with straight sand topdressing. Additionally, this year, we will also deep solid tine our seven original native soil greens to 10" and backfill with straight topdressing sand.

-We linear aerify the second or third week of May using 3 mm blades and backfill the slits with straight topdressing sand.

-Paul Diegnau, CGCS
Keller Golf Course
St. Paul

In a typical season I aerify my greens two times on the dates of mid-October using 3/8-inch hollow tines and the first week of November using 10-inch, solid flat-inch tines. I do not backfill with sand, but topdress light and frequently through the summer with silica sand. I do not linear aerify. I recover typically in mid-April.

-Jack MacKenzie, CGCS
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Hole Notes July 2005 21
Aaron Johnsen, a junior at the University of Minnesota, has been selected as this year's MGCSA Turf Scholarship winner.

A 2003 graduate of Hill-Murray High School, he was named to the National Honor Society as well as the A and B honor rolls every semester and was graduated magna cum laude. He also played for that school's golf team.

Since April, 2004 he has been engaged in golf course maintenance at Somerset Country Club. He previously was a starter and ranger at Eagle Valley Golf Course where "Dave Erickson cultivated my interest in this profession by explaining maintenance practices and giving me responsibility with the maintenance crew. He helped me gain knowledge about the workings of a golf course maintenance program."

Aaron said his father "stimulated my initial interest in golf when I was a child. Then the ability to work within a sport that I love and the opportunity to change the playing field got me interested in this profession."

In high school, Aaron graduated Magna Cum Laude and later trained to Level Four in USA Hockey's coaching certification.

"Aaron is a fine, knowledgeable young man who works hard and is reliable" said James Bade, Superintendent at Somerset Country Club.

"Over my first year and a half at the University of Minnesota, I have worked my hardest to do well in school and to learn the ins and outs of the business," Johnsen said. Through this time he carried a 4.00 GPA.

Johnsen also has joined the Turf Club at the U of M.

The MGCSA Scholarship Fund was originated in 1987. The MGCSA scholarship is an annual grant awarded to candidates who are interested in golf course management as a career, have high scholastic capabilities and have superior performance as an employee of a golf course.

MGCSA Scholarship Committee members include: Brad Zimmerman, Chair; Eric Peters; Jon Almquist; Dale Hiebert; Matt McKinnon; Chris Hoff; John Betchwars; Paul Diegnau, CGCS, and Mike Nelson.

(Editor's Note: More information about the MGCSA Scholarship Fund may be found at www.mgcsa.org.)
Prostate Cancer—
(Continued from Page 6)

Antiandrogens can block the action of androgens (hormones that promote male sex characteristics). Two examples are flutamide and bicalutamide.

Drugs that can prevent the adrenal glands from making androgens include ketoconazole and aminoglutethimide.

Orchiectomy is a surgical procedure to remove one or both testicles, the main source of male hormones, to decrease hormone production.

Estrogens (hormones that promote female sex characteristics) can prevent the testicles from producing testosterone. However, estrogens are seldom used today in the treatment of prostate cancer because of the risk of serious side effects.

Hot flashes, impaired sexual function, and loss of desire for sex may occur in men treated with hormone therapy.

Other types of treatment are being tested in clinical trials. These include the following:

Cryosurgery

Cryosurgery is a treatment that uses an instrument to freeze and destroy prostate cancer cells. This type of treatment is also called cryotherapy.

Chemotherapy

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping the cells from dividing. When chemotherapy is taken by mouth or injected into a vein or muscle, the drugs enter the bloodstream and can reach cancer cells throughout the body (systemic chemotherapy). When chemotherapy is placed directly into the spinal column, an organ, or a body cavity such as the abdomen, the drugs mainly affect cancer cells in those areas (regional chemotherapy). The way the chemotherapy is given depends on the type and stage of the cancer being treated.

Biologic Therapy

Biologic therapy is a treatment that uses the patient’s immune system to fight cancer. Substances made by the body or made in a laboratory are used to boost, direct, or restore the body’s natural defenses against cancer. This type of cancer treatment is also called biotherapy or immunotherapy.

High-Intensity Focused Ultrasound

High-intensity focused ultrasound is a treatment that uses ultrasound (high-energy sound waves) to destroy cancer cells. To treat prostate cancer, an endorectal probe is used to make the sound waves.

This summary section refers to specific treatments under study in clinical trials, but it may not mention every new treatment being studied. Information about ongoing clinical trials is available from the NCI Web site.

Stage II Prostate Cancer

Treatment of stage II prostate cancer may include the following:

~ Radical prostatectomy, usually with pelvic lymphadenectomy, with or without radiation therapy after surgery. It may be possible to remove the prostate without damaging nerves that are necessary for an erection.
~ External-beam radiation therapy.
~ Implant radiation therapy.
~ A clinical trial of high-intensity focused ultrasound.
~ A clinical trial of radiation therapy.
~ A clinical trial evaluating new treatment options.

This summary section refers to specific treatments under study in clinical trials, but it may not mention every new treatment being studied. Information about ongoing clinical trials is available from the NCI Web site.

Stage III Prostate Cancer

Treatment of stage III prostate cancer may include the following:

~ Radical prostatectomy, usually with pelvic lymphadenectomy, with or without radiation therapy after surgery. It may be possible to remove the prostate without damaging nerves that are necessary for an erection.
~ External-beam radiation therapy.
~ Hormone therapy.
~ Radical prostatectomy, usually with pelvic lymphadenectomy, with or without radiation therapy after surgery.
Prostate Cancer—
(Continued from Page 23)

~ Watchful waiting.
~ Radiation therapy, hormone therapy, or transurethral resection of the prostate as palliative therapy to relieve symptoms caused by the cancer.
~ A clinical trial of radiation therapy.
~ A clinical trial of ultrasound-guided cryosurgery.
~ A clinical trial evaluating new treatment options.

This summary section refers to specific treatments under study in clinical trials, but it may not mention every new treatment being studied. Information about ongoing clinical trials is available from the NCI Web site.

Stage IV Prostate Cancer

Treatment of stage IV prostate cancer may include the following:
~ Hormone therapy.
~ External-beam radiation therapy with or without hormone therapy.
~ Radiation therapy or transurethral resection of the prostate as palliative therapy to relieve symptoms caused by the cancer.
~ Watchful waiting.
~ A clinical trial of radical prostatectomy with orchiectomy.
~ A clinical trial of chemotherapy.

This summary section refers to specific treatments under study in clinical trials, but it may not mention every new treatment being studied. Information about ongoing clinical trials is available from the NCI Web site.

Treatment Options for Recurrent Prostate Cancer

Treatment of recurrent prostate cancer may include the following:
~ Radiation therapy.
~ Prostatectomy for patients initially treated with radiation therapy.
~ Hormone therapy.
~ Pain medication, external radiation therapy, internal radiation therapy with radioisotopes such as strontium-89, or other treatments as palliative therapy to lessen bone pain.
~ A clinical trial of ultrasound-guided cryosurgery.
~ A clinical trial of chemotherapy or biological therapy.

This summary section refers to specific treatments under study in clinical trials, but it may not mention every new treatment being studied. Information about ongoing clinical trials is available from the NCI Web site.

(Editor's Note: This information is provided by the American Cancer Institute. This is the second part of a two-part series).

Did You Know...

Each king in a deck of playing cards represents a king from history:

Spades: King David
Hearts: Charlemagne
Clubs: Alexander the Great
Diamonds: Julius Caesar

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Brown patch is caused by a fungal pathogen (*Rhizoctonia solani*) that affects all cool season turfgrass species. It is a foliar disease that does not affect crowns or roots. Moderate to severe outbreaks on high-maintenance creeping bentgrass and annual bluegrass can result in thin, poor quality turf that may be predisposed to algae and moss infestation.

Even mild brown patch outbreaks can spoil the appearance of golf greens and tees. Taller mown turfgrasses for athletic fields and professional landscapes (especially tall fescue and perennial ryegrass) also may sustain damage from brown patch infection.

**Disease Characteristics and Symptom Expression**

Under favorable environmental conditions brown patch symptoms may develop overnight. On creeping bentgrass and annual bluegrass greens and tees, brown patch development results in circular olive green stains, ranging from 4 to 12 inches in diameter (Figures 1 and 2). Leaf blades within the patch turn brown after infection, while a gray-white band is normally evident at the perimeter of active patches (Figure 3).

The band (often called a smoke ring) is caused by advancing mycelium and water-soaked infected leaves. Smoke rings may occur on taller mown turf, but are much less evident. Figure 4 shows advancing mycelium surrounding brown patch on perennial ryegrass. Individual lesions on leaf blades with brown margins occur on all affected grass species but are most evident on tall fescue (Figure 5).

Brown patch is a summer disease. The pathogen becomes active during hot, humid periods when dew periods exceed 10 hours and nighttime temperatures remain above 65 degrees Fahrenheit. Also, outbreaks will be more severe when nitrogen fertility is excessive during disease-favorable weather.

The brown patch pathogen produces no spores. Therefore, the disease spreads by radial expansion of mycelium over leaf blades and by mechanical maintenance practices. The fungus survives in thatch and turf debris between active periods.

**Disease Control**

**Resistance to Disease**

Varieties of various turfgrass species with different degrees of susceptibility to brown patch infection are listed at the National Turfgrass Evaluation Program website: [www.ntep.org](http://www.ntep.org). It is important to note that under favorable environmental conditions all varieties will sustain some brown patch damage if they are not protected with fungicides. Most lists ranking brown patch resistance/susceptibility vary widely, and real differences often are not apparent. Perhaps the best way to identify varieties with desired resistance levels is to observe their growth and response to disease pressure at university field days.

Attention to cultural practices, such as avoiding excess nitrogen during the summer, can contribute to reducing disease pressure and help improve fungicide performance on intensively managed turf. Improving air circulation and scheduling irrigation to avoid long dew periods also help suppress brown patch outbreaks.

(Continued on Page 26)
Background

Established in 1965, Honeywell Country Club was built for the Honeywell employees.

Honeywell Country Club changed to Brackett's Crossing Country Club in the early 80s (name came from early pioneer mail carrier by the name of J.J. Brackett). We currently have a wood carving of J.J. Brackett located by the tee on hole number 7.

Well I'm been working in the golf industry for 24 years with 14 years as a Superintendent. I grew up in New Prague and worked at the course during high school/college years. I attended the University of St. Thomas, majored in Human Resources Management with a minor in sports : I played football at St. Thomas (quarterback) and yes I'm still picking slivers out of my rear end. I received my Turf Degree from Anoka Tech College and took on my first Supt's job growing in Wildflower Golf Course (Detroit Lakes). For the last eleven years, I'm been Superintendent at Brackett's Crossing Country Club and loving it.

Why and how did you enter the turf management industry?

I got into the field for many reasons such as the love of the game, working with environment, working with people (sometimes challenging), office consisting of 180 acres and don't have to wear a suit daily.

Who was your professional mentor?

Over the years too many to name, and the list is growing yearly. However, if I had one individual to label it would be Larry Vetter. When I was green in the field, I was Head Superintendent at Wildflower Golf Course and being just out of turf school, I of course had questions. Larry was the seed salesperson for the job and we had some interesting potential happenings that were being proposed for the job. I contacted Larry with my concerns and he had similar thoughts. The most impressive part is that he got in his vehicle from Minneapolis and drove to our course (4 hours) to attend the meeting with me. Now that impressed me to no end and to this day I haven't forgotten that (Larry may have, but not me). Thanks again, Larry.

Highest Point

Growing in a golf course (Wildflower). Seeing it go from a native piece of land to seeing newly planted seed emerge into a full-blown course.

Lowest Point

My first year here at Brackett's Crossing we had our lovely high

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temps and dew points attaching us and I was not being a great Superintendent and scouting as I should have been. Well you may know where I’m going; yes, we lost most of our number two green to Pythium.

Are your greatest challenges political, agronomic or managerial?

I truly believe it’s a combo of them all. Personally the one that I really could do without is the political one.

What is the most difficult disease to manage on your course and how do you?

375 experts (members) informing you daily on how to make things better (I’m sure you all can relate) or how it should be done. As far as diseases, they all can be very difficult if you’re not out scouting and I learned my lessons years ago. Great assistants and workers help scout daily and I’ve been blessed with great people over the years.

Is it hard to find good help in your area of the state?

I’ve been fortunate to have great people working for us. I have a mix of high school, college and retired gentlemen that make up our staff. My weekend staff consists of males and females that enjoy working at a golf course to get a change of pace from their Monday to Friday jobs. (Of course they enjoy golfing privileges).

Do you have a dog on your crew?

I do have a two-year-old chocolate lab named CC (chocolate chip). My one assistant Ken Adams has a black lab named Lu Lu and my other assistant Arik Hemquist has a yellow lab named Baily.

Where will our industry be in 10 years?

Hope I’m still in the field for one. I suppose more licenses to perform just about all tasks on the course. Example, we may need, plumber’s license to install irrigation pipe after a break on the course. Computers will be a huge part by means of operation of equipment. I also believe with more and more homes being built adjacent to courses, the complaints will continue to rise, leading to restrictions in my opinion on starting times among other restrictions.

What is your perspective of our state association and what would you change?

Not to sound like a broken record but I truly believe each individual needs to help out in any part of our association to help it continue to grow. This can range from being a board member, member of a committee, informing your membership of our professionalism.

Name your foursome, who would you like to play golf with and why?

Clint Eastwood (love the western movies), Matt Kenseth (love NASCAR), will see him at the race in Texas in November, Belinda Jensen (Meteorologist), Arnold Palmer (legendary golfer) and myself.
Numerous effective fungicides are registered for brown patch control. They include Chipco 26GT®, Cleary 3336®, Curalan®, Daconil Ultrex®, DMI fungicides (Banner Maxx®, Bayleton®, Eagle®), Prostar®, and the strobilurin fungicides (Compass®, Heritage®, and Insignia®).

When selecting a fungicide, be aware of other turf disease threats so fungicide costs can be optimized and other disease problems can be avoided. For example, strobilurin fungicides (such as Heritage 50WDG®, Compass 50WP® and Insignia 20WG®) are the most effective against brown patch. However, if strobilurins are applied alone when dollar spot is active, the dollar spot problem could become overwhelming and very costly to control. Prostar 70W® is effective against brown patch but not dollar spot. Also, it has been reported that applying Prostar® can exacerbate a gray leaf spot problem on perennial ryegrass because it does not affect the gray leaf spot pathogen. For more on dollar spot, see Purdue Extension publication BP-105-W (www.ces.purdue.edu/extmedia/BP/BP-105-W.pdf); for more on gray leaf spot, see BP-107-W (www.ces.purdue.edu/extmedia/BP/BP-107-W.pdf).

These represent simple examples concerning brown patch; however, similar issues may be raised with other diseases. The point is: before applying a fungicide, it is important to first evaluate turf conditions, understand the current and potential disease threats and examine the entire activity spectrum of the fungicides under consideration.

(Editor's Note: This article was reprinted with permission from Purdue University and Dr. Richard Latin.)
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My Pro is fond of posting this quote in the locker rooms in plain view of the members: "The events at your club just wouldn't be the same without you!" It is just a subtle reminder for the membership to participate in their club, because without their camaraderie there would be no association at all.

The same holds true for our group, the Minnesota Golf Course Superintendents Association. Without the concerted effort of the membership in the form of a Board of Directors, our professional organization would fall apart. Unfortunately the bulk of the work to keep the alliance moving forward is done by a small percentage of the affiliates. In my mind there are several reasons, and it is not because we are limited in our combined talents.

**We have all heard the excuses**, "the Board... It's a Good Old Boys Club, What is in it for me and I don't have the time."

I say "B" as in "B" and "S" as in "S"! Let's take a step back and analyze these responses.

It's just a Good Old Boy's (not to forget, metro and private) Club. Come on, just look at the breakdown of your representatives. Fifty percent are from outside the metropolitan area. And, 50 percent are NOT private. Resort, public, municipal and private clubs are represented at the board level. Even the budgets of the clubs reflect a broad diversity. Annually every effort is made to hold the meetings at a variety of locations in our state. Typically they are held in conjunction with the golf outings, or in the cities during the "off season" because of its central location.

**What is it in for me?**

Well, to be honest, not much if this is your attitude regarding voluntary, non-profit organizations. For member-driven associations such as ours to move forward we must have the support and participation of the membership, and the more activity, the better. Case and point, last year we had a record number of member-generated articles in our Hole Notes publication. Every article had timely information written by your peers about relevant issues. This year my solicitation efforts have been received half-heartedly. Thus the magazine has reprints and sometimes-obscure information. Color has made a big difference in the publication, but only when the content matches our readership will it again become spectacular.

**And another thing**, there is plenty of room on several committees for you to participate. Research, Arrangements, Legislative and Scholarship are always looking for volunteers. Step up to the plate and make a difference.

**I just don't have any time.** Again, BS. Make some time. There is a lot to be done during the off-season. Unfortunately the BOD isn't clairvoyant and can just pick individuals out of the directory to help. Each of you has a story to tell or information to share. Write an article, join a committee, help introduce a speaker at the State meeting. Get more out of your association by giving more of yourself.

In fact, your association has begun an informational campaign designed to educate and enlighten the association. Each month a new question will be asked the members via e-mail. The issue is typically timely and always topical. The responses are almost as simple as filling in a blank and will be posted in the latest issue of Hole Notes Magazine.

**The idea is simple.** How often has your GM, owner or BOD asked you what your peers are doing with regard to a specific procedure? And how would you like to respond back that you have tabulated information from 45 courses polled across the state. For example we posted an aerification question two weeks ago and were inundated with responses from border to border. Thanks to those who participated we have begun an informational data log to be used by the membership for the membership. This month our "Peer to Peer" request will center on winter preparation.

**Of course the choice is yours whether you participate.** It is sort of like voting. If you don't like the system, take a stance and vote. And if you don't vote, don't bitch. In an association one must take an active role in the direction the group is going. Without the input how else is the Board supposed to know when they are doing right or wrong?

The next time you hear someone complain about the system, ask what he or she has done recently to create change. The silence could be deafening.