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Insight
One Superintendent's Perspective

By Randy Pankonen
Little Falls Country Club

The Course
Little Falls Country Club is an 18 hole, Par 72 course designed by Jim Dahl located on the south edge of town at the corner of Hwy. 76 and Hilton Road nestled in majestic oaks along the Mississippi River.

Years in Business
I’ve been in the business for 18 years, 15 as Superintendent. My schooling was at Anoka Hennepin Technical College.

Why and how did I enter the turf management industry?
For the love of the game and the dream of one day managing a golf course.

Who was my professional mentor and why?
Morris Tedd Evans III. Ted runs a beautiful 18-hole course on Lake Campbell in Brookings, SD. He transformed the course into one of the nicest in the state of South Dakota.

Highest Point
Getting my first opportunity to help re-design and build a course, Pipestone Country Club.

Lowest Point
Leaving the course you assisted in the re-design and building of, as it was growing in.

Are your greatest challenges political, agronomic or managerial?
I would say politics. I work for a municipal golf course with a very tight budget.

What is the most difficult disease to manage on your course and how do you?
Anthracnose, the fairways are bluegrass; by cutting them as short as golfers like them it opens them up to the disease, along with warm temperatures and poor soil.

Is it hard to find good help in your area of the state?
Good help is always hard to come by but I am fortunate to have a very good assistant along with good seasonal people.

Do you have a dog on your crew?
No, we do not. But are looking at it very strongly. The geese that live on the Mississippi River love our fairways.

Where will our industry be in 10 years?
The hybrids in the turf grasses will be a great asset in lowering the use on chemicals, along with state and federal regulation, maintenance will be better managed do to them.

Where do I plan to be in 10 years?
Retired???

What is my perspective of our state association and what would you change?
One of the most active in the nation, great assistance with data collected.

Name your foursome...
Greg Norman, Phil Mickelson, Sergio Garcia. It would be a great way to spend an afternoon.
Your career is too important to rely on products that are “good enough.” You need better. And BASF delivers. Our comprehensive portfolio of products offers control of hundreds of turf diseases, weeds and insects. Control you can trust. Better control.

In the last five years alone, BASF has invested more than $1.5 billion in agricultural products research and development as well as several hundred million dollars in plant biotechnology. And it shows. Test after test proves we push our products to perform better. That’s the commitment you can count on from the world’s leading chemical company.

That’s the bottom line, isn’t it? And that’s what you’ll get with BASF. Better turf with maximum efficiency of labor and resources. Put us in your rotation and let us prove it. You’ll be better off.

For more information, please contact Dave Oberle at 651-681-8050.

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AVERAGE LOAD 22 TONS.
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Turf Supply Company
I know many of you recently attended the March Mini-Seminar held at the Minnesota Valley Country Club. Hopefully some good information was gleaned by all in attendance and maybe even a few eyes were opened. In all honesty, I was a little disappointed in the turnout and by the lack of GC Superintendents in attendance.

Considering that pesticides are one of our major "tools of the trade" and they are facing increasing pressure from the environmental extremist movement, I thought the topic would hold more relevance for our membership.

One of the take-away messages from this event was stand up and be counted.

You may think your voice won't be heard, but it will! Case in point - 14 Minnesota Superintendents made it a point to write to the city of Northfield to oppose an ordinance to ban synthetic pesticides and fertilizers used on private property by homeowners and commercial applicators. This local government is only asking its citizens to engage in the same practices as it has done to 'protect the environment for all its citizens.' Copies of the Northfield OPM document and comments regarding the document by the Vice Chair of the City of Northfield Environmental Quality Commission are available for your viewing at www.mgcsc.org.

Please be aware that R.I.S.E. has an abundance of resources available to assist in countering the anti-pesticide/fertilizer movement. Available resources include:

~ Step-by-step guidelines for meeting with elected officials;
~ Talking points for those wishing to meet with elected officials;
~ PR development and publishing assistance for specific group initiatives including brochures, press releases, etc.
~ A sample brochure produced by R.I.S.E. for the Environmental Industry Coalition in Connecticut on the benefits of turfgrass athletic fields is also available for viewing on the MGCSA website. Even though R.I.S.E. assisted with the brochure development and paid the printing costs, only the EIC logo is found on the brochure;
~ Advocacy and /or media training in Minnesota.

If you are interested in obtaining any of these publications or training or you have additional questions, Stacey can be contacted at: Stacey L. Pine, Director State & Local Affairs, Manager RISE Grassroots Affairs, DC Legislative & Regulatory Services, Inc., 1156 15th Street, NW; Suite 525, Washington, DC 20005 or call her at (202) 872-8440, fax (202) 872-8808, spine@dclrs.com or visit www.dclrs.com.

Keep your eyes and ears open throughout the towns, cities and communities of Minnesota. Spread the news of new initiatives and environmentalist activities and share this information with R.I.S.E., your colleagues and industry leaders. But more importantly, engage your elected officials at the state and local levels and provide them with real facts. Together in a united front we can retain pesticides as one of the tools of our trade. To quote Ms. Pine: "DON'T LET THE ACTIVIST VOICES BE THE ONLY ONES HEARD BY ELECTED OFFICIALS!!"
Eliminate mower, shoe, ball pick up, and reduce player down time.

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  - AGC178WMDG4

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**EBZ7001-RH Backpack Blower**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engine</td>
<td>2 Cycle Strato-ChargedTM</td>
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<tr>
<td>Engine Displacement</td>
<td>64.9 cc</td>
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<tr>
<td>Fuel Capacity</td>
<td>70.9 fl. Oz.</td>
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<tr>
<td>Dry Weight</td>
<td>23.4 lbs</td>
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<tr>
<td>Air Volume</td>
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<td>Air Speed</td>
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<tr>
<td>Noise Level</td>
<td>77 dB(A)</td>
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<tr>
<td>Warranty</td>
<td>2 Years Commercial, 2 Years Homeowner</td>
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<tr>
<td>Features</td>
<td>Multi-language Technology, Left or Right Hand Models, 2 Stage Air Filter, Free Flow™ Net</td>
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</tbody>
</table>

**TR2300S Lightweight String Trimmer**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tbody>
<tr>
<td>Engine</td>
<td>2 Cycle</td>
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<td>21.7 cc</td>
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<tr>
<td>Carburetor</td>
<td>Diaphragm with Purge Pump</td>
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<tr>
<td>Ignition System</td>
<td>Solid State</td>
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<tr>
<td>Fuel Capacity</td>
<td>16.9 fl. oz</td>
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<tr>
<td>Dry Weight</td>
<td>9.5 lbs</td>
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<tr>
<td>Weight w/o Guard</td>
<td>8.8 lbs</td>
</tr>
<tr>
<td>DriveShaft</td>
<td>Straight, Solid Steel, Splined Ends</td>
</tr>
<tr>
<td>Head</td>
<td>PT104+</td>
</tr>
<tr>
<td>Warranty</td>
<td>2 Years Commercial, 2 Years Homeowner, 90 Days Retail</td>
</tr>
<tr>
<td>Features</td>
<td>Multi-language Technology, Ultra Light Weight, Durable Straight Shaft Design</td>
</tr>
</tbody>
</table>
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Current State of Elm Research at TRE Nursery

By CHAD P. GIBLIN and JEFFREY H. GILLMAN
Department of Horticultural Science, University of Minnesota

Background

For much of the past century, American elms have been a very important part of our urban forest, especially in the Twin Cities. Since the outbreak of Dutch Elm Disease (DED), however, urban foresters and nursery growers have been scrambling to find suitable replacements for these tough specimens. The Minneapolis Park and Recreation Board (MPRB) has been planting many resistant elm varieties for years. Their interest helped establish a cooperative research project between the MPRB and the University of Minnesota's Teaching, Research, and Extension (TRE) Nursery to evaluate the various elms available in the nursery trade. The goal was to find as many new elm selections as possible and get a feel for their suitability in the Twin Cities Metro Area. Since 1999, over 900 elms selected from over 20 different varieties have been evaluated.

Pruning & Maintenance

If you grow and maintain elms, especially Americans, you already appreciate how much maintenance is required to keep these trees in top form. Elms require unique levels of maintenance for long-term health, and many varieties will require pruning and training throughout the growing season for the first few years of their life outside of the nursery or garden center. Maintenance of strong central leaders is of critical importance, especially for boulevard trees. Inspired by the pruning research performed at the University of Florida, Gainesville by Dr. Ed Gilman, we examined different production techniques to produce elms that were both manageable in the nursery and had a form required for long-term structural health.

Cathedral elm is an Ulmus japonica variety that has been around for many years (planted in 1975) which has a high incidence for breakage due to poor branch attachment and included bark. We felt this would be an excellent selection for this type of research. One treatment involved planting young trees into the production field on fairly close spacing, about 7 feet on center and 12 feet between rows. These trees were staked only to keep them upright long enough to root in. No other pruning or training was performed. The other treatment maintained wider spacing, 10 feet between trees and 12 feet between rows. These trees were managed like most nursery stock, pruning, raising and thinning to balance crown and stem with heading back cuts to allow staking and splinting of central leaders. These trees were grown for three years and harvested B&B in the 3 to 3.5" stem caliper range.

The trees grown under close spacing, while much less uniform in height and form had both greater caliper increase and greater apical dominance. The trees grown under higher maintenance conditions, while more uniform, lost apical dominance at a much lower height. This research is still only preliminary, and should not be taken as hard fact, as these results are based only with one type of tree under two types of maintenance systems. Interestingly enough, though, with some of these elms less may be more!

The recent publication of Dr. Ed Gilman's recent pruning study (The Journal of Environmental Horticulture 24(4)) inspired additional research, this time taking a look at how pruning practices affect stem caliper increase, pruning wound closure, and overall tree health. This new study at TRE includes three different species fairly common in Minnesota: New Horizon elm, Homestead elm, and common hackberry (Celtis occidentalis). We hope to have solid results by 2009.

American Elms

Work at TRE is now focusing on true U. americana selections. The 'American Liberty' elm is a patented selection currently propagated only by the Elm Research Institute (ERI) in New Hampshire. This tree is a "multi-clone" selection which means that there are actually six different genetically unique clones that are sold under the 'American Liberty' name. Unfortunately, this also means that they behave differently in the nursery, and it's a little difficult to get a uniform crop. We have a few dozen liners under evaluation at the TRE Nursery and after three or four years more will be known about this selection's suitability for the Twin Cities area. This tree may be too cost prohibitive to purchase for liner

(Continued on Page 19)
production at a production nursery ($35 for a two year rooted cutting). And, unless ERI changes its licensing policy to allow others to propagate it, this one probably won't become a big name in the trade.

The U.S. National Arboretum recently donated fifty 'Jefferson' clones from their production to the TRE Nursery. The parent tree is reported to have excellent DED resistance and superior form, we'll know more in three to four years. This selection has been quite easy to root from softwood and semi-hardwood cuttings, and, is not patented like both 'Valley Forge' and 'Princeton', making it a good one for growers to keep their eyes and budding knives on.

Finally, research is continuing on three local U. americana selections that show favorable signs for DED resistance. Research is just entering the third year and it will take at least two to three more before we have a good grasp of how resistant these trees are, if at all, to DED. If any of these trees are found to have high levels of resistance, a release to the trade will take considerably longer. We are also continuing work to examine trade-viable budding and grafting techniques for these and other American elms using seedling and DED-resistant clonal rootstocks. The current practice of rooted cutting production in most U. americana varieties may not be conducive to high consumer demand for uniform stock with shorter production times. More concern lies in rootstock selection as most U. americana selections are probably not compatible or appropriate to use with the U. pumila rootstocks commonly used for budding the hybrid elms currently in the nursery trade.

Looking Long-Term
Finally, you may ask how much information can be gathered simply by measuring and observing a tree in the TRE Nursery for only three or four years. Fortunately, we've been asking that same question as well, and have started long-term evaluations of these trees in the City of Minneapolis. We are now able to track a tree from the moment it is planted at the TRE Nursery to its final planting site in Minneapolis. Evaluations are based on a modified "condition rating" system which examines the overall health of the tree by rating stem and crown condition. The first round of ratings included a wide selection of elms in North Minneapolis along Olson Memorial Highway. This location is very representative of tough, urban conditions were these trees will be most useful. The big winner here is Danada Charm™; this tree looks simply outstanding in all cases so far, with a nicely balanced form and excellent hardiness and growth rate.

Tied for second place are Cathedral, Triumph™, and Patriot which are performing very nicely as well. Some surprises include Pioneer, which we touted as a great selection at the TRE Nursery. In the city, however, it would appear that winter hardiness, perhaps combined with other factors, has taken its toll on these trees. Almost all had fairly significant tip die back and branch loss over multiple years among other indications of poor winter hardiness. We shouldn't be too hard on this one, though, it was released as a Zone 5 tree! Both Discovery and Vanguard were a little rough as well, mostly due to poor crown balance and branch structure.
The Daily Journal

By NATE USELDING
Assistant Superintendent
The Bridges Golf Club

March 28, 2007

Today the temperatures reached 50 degrees and with the past few days reaching the upper 70s we bit the bullet for our inaugural mow. The season is now upon us as the fuzz is off the greens and they actually look like greens again. The first mow was at .156 inches, a bit higher than mid season's .115 inches. Looking at the extended forecast a large amount of rain is heading right towards us and while the ground is firm, we might as well mow fairways too. At the end of the day, all but four fairways were mowed due to their moisture levels being too high. Over the next week temperatures plummeted and we received over two inches of rain.

This is a typical entry to my journal that I keep for future references. It's a great way to look back and see what we accomplished, when it was and the weather for any given opening week. Having my own averages of maintenance practices from years of personal experiences helps me make better decisions for the golf course. I used to say, "I will remember next year," and I'll be honest, if I don't write it down I'll forget. I have a very good memory but when it comes down to numerous details day after day, many of them get left out.

I started keeping a journal in college, not for work but for my running. I ran cross country and track at the University of Wisconsin and to keep track of my mileage I had a running journal. Daily, I would add an entry to it for what I ran that day along with any other special activities I did like lifting, abdominal work, icing and any soreness I had. I also kept track of the weather when it was snowing, windy or raining out. It is amazing; when I look back and read what I wrote on the days it was unpleasant out, I remember the day like it was yesterday because I wrote down all the details in my journal. I associate some of my running days to what the weather was like outside. Most of them were days we did interval training on the track and not so much days we went out and did a distance run. I remember one day how tough it was to do 10 times a 400 meters on the track with a minute rest at 58 seconds when it was 42 degrees out and raining. It sticks in my mind.

(Continued on Page 21)