

Let's Do It Again! Day on the Hill - February 14th



By **Brian Swingle**, Executive Director, Wisconsin Green Industry Federation

On February 14th, the green industry in Wisconsin will descend on Madison for our second biennial *Wisconsin Green Industry on the Hill*. This event will not only include members of the WGIF but also green industry related associations such as the Wisconsin Christmas Tree Producers Association, Wisconsin Arborist Association, Wisconsin Golf Course Owners Association, and Wisconsin Golf Course Superintendents Association. In 2005, seventeen state green industry associations and over 200 professionals participated.

This is truly a "Green Industry on the Hill" which will have long lasting benefits for your business and our industry as we move into the 2007-2008 legislative session. We can ride on the wave we created two years ago when we used the 2002 Green Industry Survey as our cornerstone to impress upon our state lawmakers the impressive scope of our business. We need to reinforce our importance to the state's economic and environment health. Remember, we have an annual economic impact of \$2.7 billion to the state's economy, are 4,700 businesses strong, employ over 43,000 people in the state, and we are a growing segment of the agriculture, entertainment, service and environmental sectors.

Our industry is moving into a renewed awareness and concern for the environment. We are stewards of the land who are concerned with our waters, land use, invasive species, and economic pests issues. We are employers who are concerned with continuing increasing health care costs and taxes. We enjoy the benefits of a top-notch educational system but are concerned for the future and growth of the University of Wisconsin with decreasing state financial support. We are a strong, vibrant, hard-working, critical business

sector in Wisconsin's economy and its future. And we have to use the opportunity on February 14th to back it up with a strong presence in Madison at the Monona Terrace and Capitol.

This is an event that you need to commit to participating in. Immediately following our event in 2005, every single participant's hand shot into the air when asked if they wished to repeat our endeavor. There is no cost to you to attend. The costs are being defrayed by donations from participating associations and event sponsors, but I ask you to contribute your time. One day in the dead of winter. This is the most important business meeting you will attend this year - guaranteed!

In order for us to be successful, we need to show our legislative representatives that we are well organized and have large numbers who will turn out. We can do that by bringing 400 - 500 green industry business owners and leaders to the Capitol on February 14th. WGIF has 630 companies within our member associations. We should be able to double that number by ourselves! We will schedule appointments for "teams" of constituents with assigned team leaders to meet with legislators in groups.

Please contact the WGIF office for a registration form, fill it out and return it to our office. Commit to your business, your association, and your industry. It is one day to do what you cannot do alone, I cannot do on my own for you, but we can accomplish if we do this together. As the

executive director of **your** Wisconsin Green Industry Federation, my life's work is striving to help you and your business in every way possible. But this is something we have to do together. Let's do it as a team! ♻️



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.

BetterSolutions.

BetterResults.

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.

BetterTurf.™

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

We Don't Make The Turf.
We Make It Better.™

 **BASF**
The Chemical Company



Getting What You Want with Primo

By **W.C. Kreuser and Dr. W.R. Kussow**, Department of Soil Science, University of Wisconsin-Madison

Over the past fifteen years, Primo (Trinexapac-ethyl) has become one of the most popular plant growth regulators used on golf courses. It has come into fashion for many reasons. Primo provides growth suppression with less phytotoxic effects than other plant growth regulators (Watschke, DiPaola, 1995). Perhaps another reason for the Primo boom is due to the secondary benefits associated with the chemical. Primo is said to increase turfgrass density, root mass, color, and visual quality, while decreasing clipping production (Dernoeden, 2002). All these characteristics lend to its use on golf course putting greens.

The labeled rate for Primo on creeping bentgrass putting greens is 0.125 fl oz/M at a 4 week application interval. According to the label, that rate should provide a 50% reduction in clipping production. However, the label states that the application rate can be altered to fit environmental conditions and management practices. This stipulation has led to a wide array of application rates and frequencies. I have observed different Primo regimes on three golf courses in Wisconsin. One course used 0.18 fl oz/M of Primo every 4 weeks on their USGA bentgrass greens. Through casual observa-

tion of these greens I noted a decrease in color, quality, and clipping production. Another golf course with bentgrass USGA greens applied Primo at 0.05 fl oz/M every week. The turfgrass seemed to have an increase in color, density, and quality, but didn't experience much of a reduction in clipping production. The last golf course used Primo at 0.10 fl oz/M every two weeks. These bent/poa push up greens seemed to have a decrease in clipping production without a significant change in other turfgrass qualities. Although the total amount of product applied was about the



syngenta

A little goes a long way.

Now there's a fairway fungicide that protects against all major turf diseases. What's better, it offers a low 0.75 oz fairway rate for control of dollar spot and brown patch. New Headway™ fungicide's dual mode of action provides complete systemic protection, so the whole course can have the full protection it needs.



Contact Steve Abler at 920-860-6374
to learn more.

www.syngentaprofessionalproducts.com

Important: Always read and follow label instructions before buying or using this product.
©2006 Syngenta. Syngenta Professional Products, Greensboro, NC 27419.
Headway™ and the Syngenta logo are trademarks of a Syngenta Group Company.

same on the three golf courses, the bentgrass seemed to respond quite differently, leading me to question what is the ideal Primo application rate and frequency for bentgrass putting greens.

Our experiment was conducted at the OJ Noer Turfgrass Center during the fall of 2006. The experiment was conducted on a young USGA spec green seeded to 'Penncross' creeping bentgrass in May. The green was split into 4 replicates of 10 different treatments. The treatments tested rates of 0.05 fl oz/M, 0.10 fl oz/M, and 0.20 fl oz/M of Primo, each at application intervals of 1, 2, and 3 weeks. The 10th treatment received no Primo and served as the control. Every week color ratings, chlorophyll indices, quality ratings, and the clipping yields were recorded. At the end of the experiment tiller density and root mass were also measured. The first Primo application was on September 15, 2006 and the last application occurred on October 13, 2006.

The results of the study demonstrated that differing Primo rates and application intervals produced wide ranges in clipping production reduction (Table 1). The low Primo application rate didn't decrease clipping production compared to the control, while the high rate provided the greatest reduction in clipping production (Table 4). The Primo label states a medium rate of 0.125 fl oz/M every four weeks will suppress 50% of clipping production. The only time that we experienced a 50% or greater reduction in clipping production occurred with the high rate applied at 1 and 2 week intervals. As the rate of Primo was increased, clipping production decreased linearly. Also, these trends show that there was no significant difference in yield reduction between one week and two week application intervals regardless of application rate. This tells us that at the high rate, there is no need to apply Primo at an interval of less

TABLES

Table 1. Reduction in Putting Green Clipping Production as Influenced by Rate and Frequency of Primo Application

Primo Application			Percent Reduction in Clipping Dry Weight				
Rate fl oz/M	Frequency Weeks	Total fl oz/M/5 WK	WK1	WK2	WK3	WK4	WK5*
0.05	1	0.25	14.9 abc	4.1 de	0.0 d	12.9 cf	1.7 bc
0.05	2	0.15	21.5 abc	4.2 de	9.5 cd	23.5 dc	4.2 bc
0.05	3	0.10	17.2 abc	12.9 cde	0.0 d	4.4 ef	0.0 c
0.10	1	0.50	8.9 bc	32.0 abc	30.8 bc	38.8 cd	25.6 abc
0.10	2	0.30	24.8 abc	29.1 abc	19.9 cd	45.9 bc	42.6 ab
0.10	3	0.20	30.7 ab	24.6 bcd	9.6 cd	4.4 de	3.1 bc
0.20	1	1.00	36.0 ab	51.9 a	59.4 a	68.9 a	61.0 a
0.20	2	0.60	36.9 ab	44.8 ab	50.0 ab	63.8 ab	60.6 a
0.20	3	0.40	43.9 a	43.3 ab	27.7 bc	42.4 cd	46.8 a
Duncan's LSD (p = 0.05)			25.3	22.1	23.0	18.7	46.8

* One week after final Primo application

Table 2. Overall Putting Green Quality Ratings as Influenced by Rate and Frequency of Primo Application

Primo Application			Overall Quality Rating				
Rate fl oz/M	Frequency Weeks	Total fl oz/M/5 WK	WK1	WK2	WK3	WK4	WK5*
Scale of 1 to 9 (perfect quality)							
0.05	1	0.25	5.0	5.9	6.8 a	7.7 a	7.3 a
0.05	2	0.15	4.3	5.6	6.2 a	6.3 bc	6.5 b
0.05	3	0.10	4.4	5.5	6.6 a	6.2 bc	6.3 bc
0.10	1	0.50	5.1	5.7	6.3 a	6.9 ab	6.9 ab
0.10	2	0.30	4.7	5.8	6.6 a	6.7 b	6.6 ab
0.10	3	0.20	4.7	5.5	6.2 a	6.5 bc	6.6 ab
0.20	1	1.00	4.8	5.2	4.9 c	4.7 d	5.3 d
0.20	2	0.60	4.4	5.5	5.3 bc	5.6 c	5.7 cd
0.20	3	0.40	4.8	5.4	5.5 b	6.3 bc	6.4 bc
Control		0.00	5.0	5.9	6.5 a	7.0 ab	6.9 ab
Duncan's LSD (p = 0.05)			NS	NS	0.6	0.9	0.7

* One week after final Primo application

than two weeks. Therefore, it is a waste of time and money to decrease the application interval to one week in an effort to reduce clipping production.

The overall visual turfgrass quality was rated weekly on a scale from 1 to 9 (Table 2). A rating of 6 or above is considered acceptable turf. The application that consistently produced the highest turfgrass quality was the light weekly application. The heavy rate at all application frequencies exhibited the lowest quality

throughout the study (Table 4). All other treatments produced turfgrass quality that was similar to or worse than the control plot.

Bentgrass color was quantified with a chlorophyll meter (Table 3). This meter measures the amount of green light being reflected off the putting green surface. It then creates a chlorophyll index (CI) based on the amount of green light received. The larger the number the greater the amount of chlorophyll detected. The CI values (Table 3) exhibited

Table 3. Chlorophyll Index as Influenced by Rate and Frequency of Primo Application

Primo Application			Chlorophyll Index				
Rate fl oz/M	Frequency Weeks	Total fl oz/M/5 WK	WK1	WK2	WK3	WK4	WK5*
0.05	1	0.25	238	267	304 a	277 a	261 a
0.05	2	0.15	212	248	279 ab	245 abc	235 abc
0.05	3	0.10	229	251	288 ab	258 ab	240 abc
0.10	1	0.50	217	250	295 a	258 ab	246 abc
0.10	2	0.30	224	261	290 ab	255 abc	243 abc
0.10	3	0.20	214	262	299 a	267 ab	241 abc
0.20	1	1.00	216	235	242 b	220 c	214 c
0.20	2	0.60	233	240	272 ab	238 bc	223 bc
0.20	3	0.40	214	238	286 ab	249 abc	258 ab
Control		0.00	233	272	292 ab	256 ab	244 abc
Duncan's LSD (p = 0.05)			NS	NS	44.2	32.2	31.5

* One week after final Primo application

Table 4. Means from Weeks 2-5 of Reduction in Clipping Production, Chlorophyll Index, Overall Quality, Density, and Root Mass as Influenced by Rate and Frequency of Primo Application

Primo Application			Means				
Rate fl oz/M	Frequency Weeks	Total fl oz/M/5 WK	Quality 1 to9	Clipping reduction %	CI	Roots mg	Tillers #/cm ²
0.05	1	0.25	6.9 a	3.0 cd	277 a	303 ab	106 ab
0.05	2	0.15	6.2 abc	10.3 cd	252 abc	265 ab	87 bc
0.05	3	0.10	6.2 abc	0.0 d	259 abc	248 ab	93 abc
0.10	1	0.50	6.5 ab	31.8 b	259 abc	293 ab	102 ab
0.10	2	0.30	6.4 ab	35.3 b	262 ab	258 ab	109 a
0.10	3	0.20	6.2 abc	15.3 c	267 ab	275 ab	87 bc
0.20	1	1.00	5.0 d	60.3 a	228 c	235 b	93 abc
0.20	2	0.60	5.5 cd	54.6 a	243 bc	218 b	94 abc
0.20	3	0.40	5.9 bc	40.0 b	258 abc	250 ab	89 abc
Control		0.00	6.6 ab	0.00 d	266 ab	335 a	79 c
Duncan's LSD (p = 0.05)			0.7	12.7	29	81	18

trends similar to the quality ratings (Table 4). The light weekly application had the highest CI. The heavy, frequent applications had the lowest CI. The other plots had a CI similar to the control.

Some of the most interesting data came from measures of root mass and turfgrass density (Table 4). All Primo treatments had higher density than the control plot. The medium rate at two week application intervals produced the highest density. Overall the highest density

for each application interval was the medium application rate. Interestingly, we observed a decrease in root mass with Primo application (Table 4). As the application rate of Primo increased, root mass decreased. The application frequency didn't have much effect on this relationship, suggesting that total product applied doesn't strongly influence root decline. Rather, it appears to be more a function of the rate per application.

In the future I would like to con-

tinue this study with summer and traffic stress. Even under cool fall conditions, the trends suggest that the ideal rates and frequencies were similar to those that superintendents are already using on their greens during the summer. Let's look back at the application rates and frequencies for the three Wisconsin golf courses from before. The course that used 0.05 fl oz/M every week seemed to experience an increase in color, density, and overall quality but not much decrease in clipping production. The course that used 0.10 fl oz/M every two weeks on poa/bent greens seemed to have an increase in density and moderate growth regulation but not a drastic change in turfgrass color. The course that used 0.18 fl oz/M every 4 weeks on bentgrass saw a decrease in color and quality following application but did experience a fair decrease in clipping production. These summer responses were comparable to the results that we obtained during our fall Primo study.

This experiment didn't measure the effect of Primo on green speed. Research conducted in the Carolinas has shown that plant growth regulators don't increase green speed significantly (McCullough et al., 2005). Golfers can only detect change in green speed if the change is greater than 6 inches (Karcher et al., 2001). The data that has come from the Carolinas shows that using Primo only increased green speed a few centimeters (McCullough et al., 2005). In some instances Primo actually slowed green speeds. This decrease in speed occurred during stressful summer months (Fagerness et al., 2000). Additionally, Primo doesn't help maintain green speed throughout the day. Greens will slow down throughout the day even with Primo regulating growth (McCullough et al., 2005). Primo still may have a place in greens maintenance. It has been found that light frequent Primo applications help maintain daily

TURF PROS



Nobody knows turf like the folks at Olds Seed Company. Whether it's a tee box or fairway, rough or green, the experts at Olds evaluate your specific situation, make recommendations, and deliver exactly what you need to make your turf look its finest. (Which makes you look pretty fine, too.)

Choose from our wide selection of proven bentgrass performers, such as:

- Providence
- Penncross
- Pennlinks
- Penneagle
- Putter
- Dominant

And ask about our custom mixture programs formulated for your site and budget.

You'll never come up short at Olds. We contract with numerous research and production firms so we have access to the best varieties available. Give us a call today and we'll help you improve your turf score.



P.O. Box 7790 • 2901 Packers Ave.
Madison, WI 53707-7790

800-356-7333
608-249-9291

Seed you can count on

Plus a whole lot more

Mulches
Establisher

Low Maintenance
Care-free Fine Fescue

Erosion Control/Blankets
Futerra

Wildflowers/Grasses
For reclamation areas

green speed (McCullough et al., 2005). This treatment won't increase the speed of the green, but it will help to buffer day to day changes in green speed.

If Primo applications don't directly increase green speed, then superintendents need think about what they want to get from Primo. If the superintendent wants dark green, high quality putting greens with little regard for clipping reduction, the light frequent rate is best. If the superintendent wants moderate growth regulation with little change in secondary turfgrass responses the medium rate at two to four week intervals will work. If a large reduction in clipping production is desired, a high application rate at two to three week intervals will accomplish that with a possible decrease in other turfgrass qualities. Again, achieving a decrease in clipping production isn't as dependent on application frequency as it is on application rate. Applying the heavy rate at 1 or 2 week intervals didn't significantly reduce clipping production. Also, remember that using Primo at all rates and frequencies decreased root mass. Using smaller application rates at frequent application intervals preserves more root mass than heavy applications. Primo application rates and frequencies have a dynamic effect on many turfgrass qualities. Using the general trends and relationships from this study can help superintendents design a Primo program that best satisfies the needs of their golf course.

Acknowledgement: The author would like to thank Dr. Doug Soldat for his help in preparing this article. Dr. Wayne R. Kussow is emeritus professor of Soil Science at the UW-Madison; Bill Kreuser is a sophomore in the turf and Grounds Program at the UW-Madison.

REFERENCES:

Dernoeden, P.H. (2002). *Creeping bentgrass management*. Hoboken, NJ: John Wiley & Sons, Inc.

Fagerness, M. J., Yelverton, F. H., Isgrigg, J., & Cooper, R. J. (2000). Plant growth regulators and mowing height affect ball roll and quality of creeping bentgrass putting greens. *HortScience*, 35(4), 755-759.

Karcher, D., Nikolai, T., & Calhoun, R. Golfers' perceptions of greens speeds vary. *Golf Course Management*, Retrieved December 20, 2006, from <http://www.gcsaa.org/gcm/2001/mar01/03golfers.html>.

McCullough, P. E., Liu, H., & McCarty, L. B. (2005). Mowing operations influence creeping bentgrass putting green ball roll following plant growth regulator applications. *HortScience*. 40(2)

McCullough, P. E., Liu, H., & McCarty, L. B. (2005). Trinexapac-ethyl application regimes influence creeping bentgrass putting green performance. *HortScience*. 40(7)

Watschke, T.L. and J.M. DiPaola (1995, March). Plant growth regulators. *Golf Course Management*, 59-62. 🌿



MTI Distributing proudly represents the finest products in the turf industry to Western Wisconsin.



Count on it.

Thinking About Last Year...

By Monroe S. Miller, Golf Course Superintendent, Blackhawk Country Club

The period from mid-November to March in Wisconsin is supposed to be cold and snowy, both generally welcome weather conditions to golf course superintendents. Our lakes should be frozen and home to hard water fishermen. Skiers should be packing our cross country trails. Ice rinks and lakes are normally busy on weekends with outdoor enthusiasts.

Not this winter. Our unseasonably warm weather has ice fishermen griping – Nakoma's Charlie Frazier merely said to me at the WTA Conference, "I don't want to talk about it." He is a serious fisherman and realizes there aren't many days left for the lakes to freeze. In fact, some of our bigger lakes probably won't freeze at all this winter, if the balmy weather persists.

The outdoor people aren't fishing, cross country skiing, ice skating or boating, downhill skiing or much of anything involving ice, snow and cold weather. Rather, they are playing golf! It used to be a big deal for a golf player from Wisconsin to say, "I played golf in 10 (or 11 or 12) of the months this year. Not anymore. Some WGCSA members were actually cutting cups the week before Christmas, for heaven's sake, and a few fairways actually looked as though a mower should be put to work, dull or not.

Something's going on here and some scientists who study global weather predict more extreme weather in the future. That means more deadly heat waves, more intense rainstorms and prolonged dry spells. What we are seeing may be the very early beginning of such weather. I suppose a lot of what the future holds may be influenced on how the world at large deals with greenhouse gases. However it goes in either the short term or the long term, we know that golf course superintendents will have to deal with it.

As we look back over 2006, we will note the early warm weather and above normal degree days, and the cool and moist weather of fall. The June to September temperatures were 1.4 degrees F. above normal. Precipitation amounts varied across Wisconsin. Mostly, rainfall was timely except for parts of northwest Wisconsin. September was the only month during the golf season that had below normal temperatures.

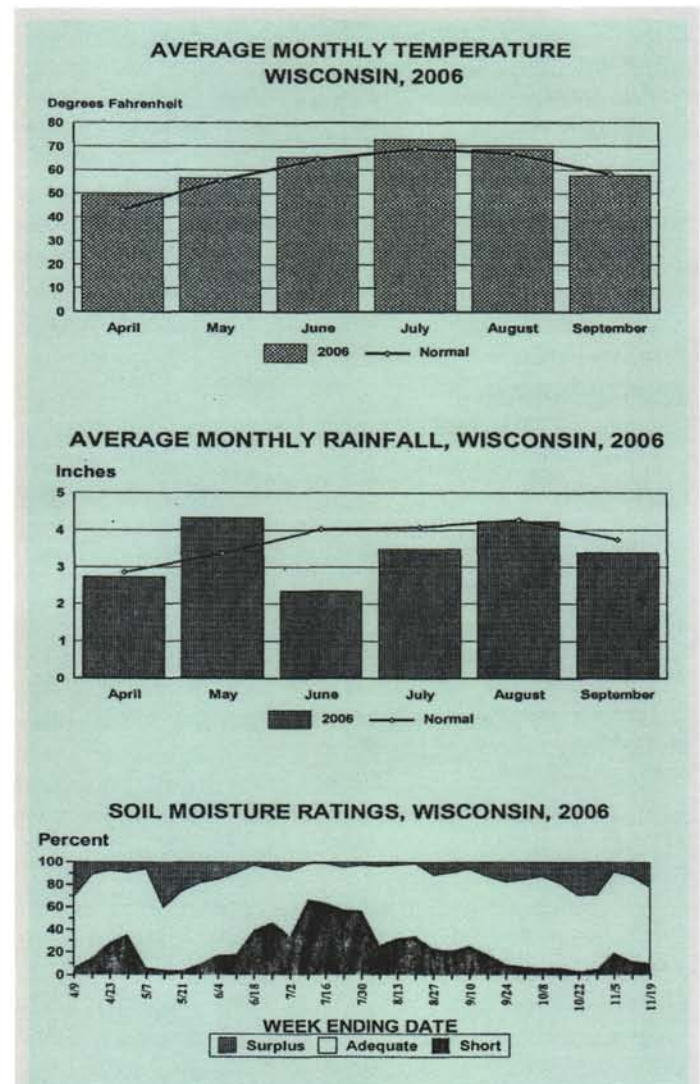
The tables and graphs on right and next page, compiled by the Wisconsin Agricultural Statistics Service, record the 2006 weather data very nicely.

As for 2007, "I make a motion that we have 'normal' weather all year."

Too late; January is already out of kilter!

This is the time of the year when we all start getting our records together for tax preparation, so there is plenty of that kind of information in the media these days. The Wisconsin Taxpayers Alliance, in a recent report that received wide distribution, estimates that federal, state and local taxes claimed 33.4% of personal income in Wisconsin during 2006, an increase over the 33.1% of 2005. It was the third straight year taxes have accounted for a larger share of our personal income. The same report estimates that Wisconsin property taxes for 2006 – 2007 will rise 3.3%, another increase over last year's 2.3%.

When will it end?



MONTHLY TEMPERATURES: 2006 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2006	Normal	2006	Normal	2006	Normal	2006	Normal	2006	Normal	2006	Normal
Degrees Fahrenheit												
NW	49.6	41.7	56.8	54.4	65.9	63.1	73.1	68.1	67.9	65.9	56.5	56.6
NC	47.2	40.4	54.7	53.2	63.7	61.8	71.2	66.4	65.9	64.2	55.1	55.3
NE	46.9	41.3	54.4	53.6	62.8	62.5	70.6	67.0	66.1	64.8	56.2	56.0
WC	50.5	45.2	57.7	57.4	67.0	66.4	74.6	70.8	69.8	68.3	58.1	59.3
C	49.9	44.5	57.1	56.7	65.7	65.8	73.5	70.2	68.8	67.7	58.0	59.0
EC	48.2	42.8	55.1	54.6	64.5	64.1	72.7	69.5	69.1	67.9	59.4	59.8
SW	50.9	46.1	57.7	57.9	66.7	67.2	74.2	71.4	70.7	69.0	59.0	60.5
SC	50.8	45.8	58.2	57.8	66.5	67.2	73.8	71.3	70.7	68.9	60.0	60.6
SE	49.9	45.0	56.6	56.3	65.4	66.0	73.2	71.2	71.6	69.4	61.5	61.4
STATE	49.1	43.2	56.4	55.5	65.3	64.5	72.9	69.1	68.5	66.9	57.6	58.1

1/Preliminary estimates, 2006. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

MONTHLY RAINFALL: 2006 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2006	Normal	2006	Normal	2006	Normal	2006	Normal	2006	Normal	2006	Normal
Inches												
NW	1.90	2.39	2.61	3.29	2.14	4.19	2.75	4.29	3.91	4.44	2.40	3.89
NC	1.12	2.40	4.31	3.31	1.77	4.01	4.28	4.06	4.90	4.36	2.30	4.03
NE	1.29	2.65	5.47	3.29	1.70	3.69	4.75	3.70	4.42	3.81	3.49	3.74
WC	3.36	3.05	3.60	3.69	2.63	4.24	2.48	4.45	5.69	4.54	3.81	3.82
C	3.10	3.02	4.63	3.52	1.81	3.88	2.91	4.13	4.26	4.22	3.57	3.72
EC	2.46	2.81	6.12	2.95	1.97	3.51	3.07	3.38	1.66	3.86	3.22	3.42
SW	5.58	3.55	4.21	3.60	3.44	4.35	3.47	4.33	3.76	4.46	4.98	3.42
SC	4.66	3.47	5.03	3.40	3.85	4.19	3.92	4.07	4.41	4.24	4.63	3.51
SE	3.74	3.48	4.95	3.13	2.81	3.76	3.86	3.82	3.63	4.22	3.97	3.48
STATE	2.73	2.86	4.32	3.37	2.35	4.02	3.48	4.07	4.23	4.27	3.38	3.74

1/Preliminary estimates, 2006. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

COMPARATIVE TEMPERATURE AND PRECIPITATION DATA

District	Average Temperature						Total Precipitation					
	June - September						April - September					
	Normal*	2002	2003	2004	2005	2006 1/	Normal*	2002	2003	2004	2005	2006 1/
Degrees Fahrenheit												
NW	63.4	65.4	64.1	61.7	65.8	65.9	22.5	28.1	20.2	22.0	17.4	15.7
NC	61.9	64.5	62.9	61.2	65.6	64.0	22.2	28.3	19.6	20.0	17.0	18.7
NE	62.6	65.0	63.2	61.7	66.2	63.9	20.9	25.4	21.3	18.1	16.8	21.1
WC	66.2	68.7	67.1	65.0	68.7	67.4	23.8	27.4	18.4	27.9	21.7	21.6
C	65.7	68.0	66.1	64.4	68.8	66.5	22.5	25.2	19.7	24.6	18.3	20.3
EC	65.3	67.9	65.1	64.0	68.7	66.4	19.9	19.9	19.7	21.9	15.0	18.5
SW	67.0	69.0	67.3	65.5	69.7	67.7	23.7	24.5	19.1	27.7	20.1	25.4
SC	67.0	69.5	67.6	66.0	70.3	67.8	22.9	20.6	19.0	25.2	16.8	26.5
SE	67.0	69.5	66.7	65.5	70.1	67.9	21.9	22.3	16.3	24.0	15.1	23.0
STATE	64.7	67.0	65.2	63.4	67.7	66.1	22.3	25.5	19.5	23.1	17.8	20.5

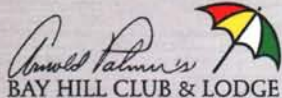
1/Preliminary estimates, 2006. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

The Real Master of the Fairway

Although there are many pretenders to the throne, there's only one Jacobsen® SLF-1880™. In a class by itself, the super-lightweight SLF-1880 is the **industry's lightest** fairway machine – providing you more attractive turf as a result of significantly **less compaction**. The SLF-1880 is also **more maneuverable** than the competition, allowing you to mow fairways, aprons and approaches with just one machine. And, the SLF-1880's patented lift-arm mechanism allows its 18" reels to easily glide over undulating terrain – giving you a **smooth, greens-quality cut** everywhere you mow. It's no surprise that world-class courses like Arnold Palmer's Bay Hill Club & Lodge choose Jacobsen products like the SLF-1880 to provide superior turf conditions every day. Contact your local Jacobsen dealer or visit jacobsen.com for more information.



The 8th hole at Arnold Palmer's Bay Hill Club & Lodge.



WHEN PERFORMANCE MATTERS™



1.888.922.TURF • jacobsen.com



444 N. Madison Street
P.O. Box 110
Chilton, WI 53014
Ph: 800-279-2341
Fax: 920-849-9576