

Turfgrass Diagnostic Lab 2003 Season Report



By **Steve Ablor and Dr. Geunhwa Jung**, Turfgrass Diagnostic Lab, Department of Plant Pathology, University of Wisconsin-Madison

As I sit down to write this article, the snow has begun to fall in Madison for the first time this year. Most of the golf course superintendents have applied their preventive snow mold treatments, and the samples coming into the lab have become few and far between. It is a good time for me to reflect on the last seven months.

It is hard to believe that seven months ago I was living in Virginia and was preparing to move back to my home state of Wisconsin. I was excited and nervous at the same time. I did not know if I had made the right decision to take the position at the University of Wisconsin-Madison and be separated from my wife for up to a full year (my wife, Rebecca, is finishing up her Ph.D. in mycology at Virginia Tech). I didn't know how I would be received by the superintendents or if the Turfgrass Diagnostic Lab (TDL) was even a priority to them.

When I began my work at the TDL on May 1st, which seems like years ago, I very quickly came to the realization that I had overwhelming support from the golf course superintendents and the turfgrass industry as well. Wherever I went, superintendents told me how important the lab was to them and that they would help me any way that they could. Additionally, industry representatives often bridged the gap between the TDL and superintendents by hand carrying many samples to the lab. When several samples started to roll into the lab in the early summer, I soon learned that I have a lot of help within the university as well. Whenever I had a tough weed or

insect sample, I could always count on Dr. Stier, Dr. Williamson, Dr. Kussow or Phil Pellitteri to steer me in the right direction. It is amazing how much I have learned from them as well as from talking with superintendents about their management techniques and what products work well on their courses.

I appreciate the warm welcome that I have received and I strive to be dependable when anyone needs a quick, accurate diagnosis of their problem as well as the most effective treatment options available. The diagnoses for the samples received so far this year are listed in the table and are split into professional (golf course, sod farm, athletic field, lawn and landscape, nursery) and homeowner categories.

As we all have experienced, the growing season for 2003 was unusual. At first glance, the cool wet spring followed by a mild, dry summer seemed like ideal conditions for growing grass. This is not entirely true because these conditions were very suitable for root pathogens that are active during the cool, wet weather of the spring and are exacerbated by dry summers. The samples received at the Turfgrass Diagnosis Lab reflected this trend well because the diseases that were diagnosed with the highest frequency from professional samples and homeowner samples were take-all patch and necrotic ring spot respectively. Both of these root-infecting diseases are enhanced by cool, wet springs and dry summers. If you are not familiar with take-all



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patch, I discussed the nature and control of this disease in the SEP/OCT edition of *The Grass Roots* from this year.

Two other diseases that were predominant this year were summer patch and Rhizoctonia yellow patch. Summer patch is common in dry years on annual bluegrass greens and Kentucky bluegrass, annual bluegrass and rough bluegrass fairways. The disease usually becomes evident when there is a heavy downpour following a dry period and when temperatures are in the 80s and 90s.

Rhizoctonia yellow patch is a wet weather, spring and fall disease that usually only results in rings of yellow turfgrass which quickly recover with the onset of either warmer or much colder temperatures. As for the non-disease samples, rough bluegrass (*Poa trivialis*) that died from heat stress and drought in August comprised the majority of the weed samples, while black turfgrass ateniensis accounted for three of the four insect samples.

Even though the weather kept the most destructive diseases in check, the TDL received 185 disease samples, which is an increase from the 2002 total of 156. I am encouraged that the Wisconsin Golf Course Superintendents Association feels that the TDL is a valuable resource and is worth supporting. I hope that you consider contracting with the TDL for 2004 if you have not done so in the past. If you would like to know more about the benefits of becoming a contract member of the TDL or have any questions regarding diseases, please contact me at (608)845-2535 or swa@plantpath.wisc.edu. You can also find all of this information as well as disease keys, disease alerts, sample submission instructions, forms, and much more at the TDL website (<http://www.plantpath.wisc.edu/tddl/>).

2003 TDL Diagnoses

<u>Diagnosis</u>	<u>Professional</u>	<u>Homeowner</u>
Abiotic	20	22
Take-All Patch	18	0
Weed ID	11	22
Summer Patch	6	0
Necrotic Ring Spot	5	34
Rhizoctonia Yellow Patch	4	0
Insect	4	8
Fairy Ring	3	1
Leaf Spot	2	3
Sclerotinia Dollar Spot	2	0
Rhizoctonia Brown Patch	2	3
Microdochium Patch	2	0
Pythium Blight	1	2
Algae	1	0
Moss	1	0
Ascochyta Leaf Spot	0	3
Septoria Leaf Spot	0	2
Corticium Red Thread	0	1
Rust	0	1
Typhula Blight	0	1
TOTAL	82	103

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North Shore Golf Club

- (2) **1999 John Deere 2653A Diesel Banks Mower** - 84" cut and 3 wheel drive - mint condition with low hours - **\$7,500** each.
- 1997 **Smithco Sand Star E Bunker Rake** - Plow blade, new batteries and tournament rake - excellent condition - **\$1,850**.
- 1994 **Toro 216 Banks Mower** - 84" cut and 3 wheel drive - good condition - **\$1,600**.
- 1989 **Cushman Truckster** - hydraulic dump box - New 20 hp Kohler retrofit engine - good condition - **\$2,300**.
- 2002 **T.I.P. 3 Point Spiker Overseeder** - Brand new, used twice excellent condition - **\$2,500**.
- (3) **Greens Groomer Brushes** - excellent condition - includes a three gang attachment - **\$750** each or **\$1,800** for the three gang.

Terra 320 Fairway Aerifier - good condition - new tines - **\$1,200**

For more information contact Scott Schaller
North Shore Golf Club
920-739-6729



Chapter Delegates Meeting Report

By Mike Lyons, Golf Course Superintendent, Old Hickory Country Club, and WGCSA Delegate

The 11th annual GCSAA Chapter Delegates meeting was held September 6th and 7th at the Kansas City Airport Marriott. There were 97 delegates in attendance representing GCSAA'S 103 chapters.

I will try to keep this report brief; the minutes (23 pages) are available at the GCSAA office for any member wishing to see a complete report.

The meeting began with a review of GCSAA organizational audit. Mark J. Woodward discussed a clear need to define the accountability of the board, the CEO and the staff to the membership. Also, board service should be less time consuming, and the board should be less transparent in its work. Involvement from members should grow as a result.

Next was a discussion on the financial status of GCSAA. Most of the discussion revolved around dues and a need to better communicate with the membership about reasons for increases. Many delegates agreed that a long term dues pricing strategy should be implemented and a policy regarding timing and increases tied to indexes.

A discussion on the affiliation agreement followed. The delegates supported a one year extension of the current agreement, which is to expire on December 31, 2004. The extension will allow time for the GCSAA to address the issue of conformity. A task force from the Chapter Relations and Membership Committees will be formed to review these issues and bring recommendations to next year's delegate meeting.

A new membership class for local chapters was discussed. This membership would be called a Facility Membership. This membership is for facilities with limited budgets. The

membership would be in the facility's name and would designate who would receive the membership benefits. It would not be a Class A or Superintendent Member membership and no voting privilege would be permitted. This membership is designed to include those facilities with limited resources and is not designed to circumvent the dual membership requirement. The delegates were in support of this type of membership to help in allowing all golf course superintendents to be included in their local chapter.

Discussion on GCSAA committee selection process was next. A new committee structure is being designed to achieve four primary objectives.

1. Create greater flexibility in addressing specific areas of need by using ad-hoc task groups as needed.
2. Broaden the working perspectives of committees and raise the primary scope of their discussions to more strategic and policy levels.
3. Create a complementary, experience-based approach to committee volunteer selection, in concert with the current interest-based approach, in order to bring additional specific expertise and outside perspectives.
4. Support the professional development of the organization's future volunteer leaders.

The new committee structure will keep the GCSAA board and committee members engaged at a more strategic level. It also will allow a larger number of members in committee service.

Brief discussions followed on

these other areas.

• **Alternative Career Paths**

GCSAA is investigating partnerships with allied associations to develop programs that address superintendents' progression into upper management.

• **Superintendents' involvement in the growth of the game of golf.**

This topic revolved around how superintendents can get more involved with marketing themselves and their facilities to the public.

• **Update on PDI**

PDI was put into effect on July 1, 2003 and the delegates were shown how to use Member Central. And for those who do not have online access, you can request transcript form GCSAA by using fax on demand at (888) 838-4419 or you can contact the service center.

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• **Certification Program and Exam Update**

Work is continuing on a restructure of the certification exam to a competency-based program that ties in with the 48 competencies identified through the PDI. It will be closed book and at the convention in San Diego the new test will be beta tested by 50 superintendents.

• **Headquarters Resource Group Location Process**

Phase I of this process is to identify the stakeholders impact, engage them in the process and identify the strengths, weaknesses, risk and opportunities associated with the GCSAA'S location and potential new location. If at the end of Phase I the conclusion is to move forward then Phase II will be started.

Phase II will evaluate locations, costs, positive and negative impacts on operation, and specific risks and rewards. A report will be written and submitted to the board around July 1, 2004.

• **The Environmental Institute of Golf**

This was formally titled The GCSSA Foundation. The mission statement is "committed to strengthening the compatibility of the game of golf with our natural environment." GCSAA was dropped from the name because it was found that in order to work in concert with other organizations to fulfill the mission, the name of the organization needed to better reflect its purpose and focus. At a recent strategic session, 50 representatives from environmental and golf organizations

met. A result from this session was the implementation of a roadmap to generate measurable results through information collection, research, education and outreach programs.

• **National Golf Foundation Avid Golfer Attitudes and Perception Study / GCSAA Outreach Program**

The 2003 report was handed out and the report indicated among many other things that superintendents are being recognized as businesspeople and not skilled blue-collar workers, and golfers are now more likely to view a superintendent as the manager of the facility.

As I mentioned this is only a brief report; if you would like the complete report, please contact GCSAA and they would gladly send you a copy. ♣

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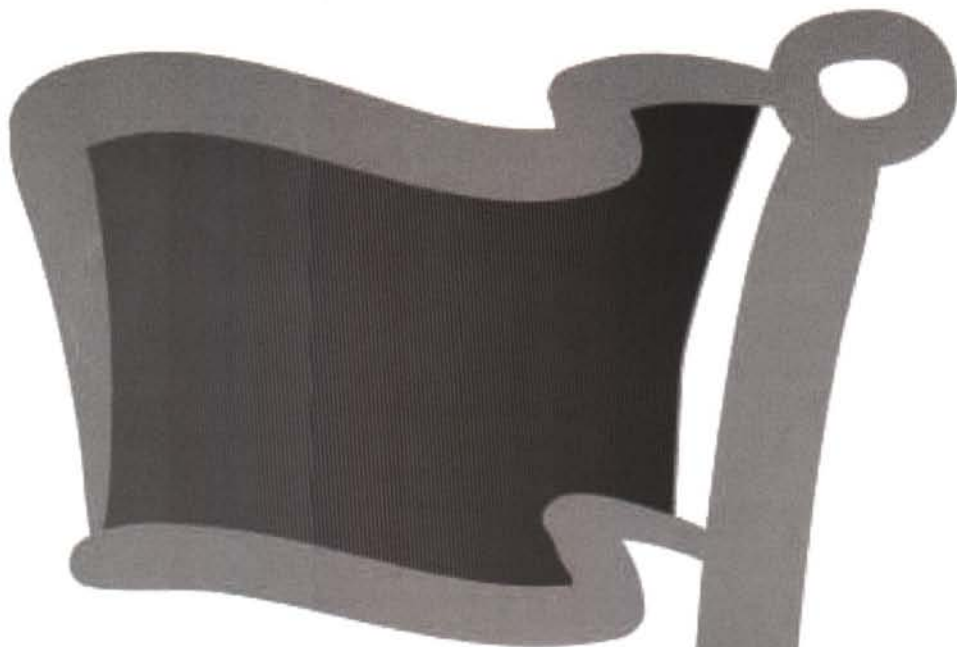
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We're Getting Close

By Tom Schwab, O.J. Noer Turfgrass Research and Education Facility, University of Wisconsin-Madison

Sometimes things move slowly at the University. Yet other times they move according to schedule. The new land development at the Noer Facility appears to be moving right on schedule. This is in large part due to generous donations from the turf industry and a potentially large grant from the University. The donations from industry and help from the University that I'm talking about are for supplies needed for the first phase of an in-ground irrigation system on the new land.

At least in my opinion the new land development is proceeding right on schedule. Dr. Geunhwa Jung may have a different opinion. He already installed two studies on the new land even though there is no in-ground system to maintain them. (You can read about his studies in the most recent issue of the WTA newsletter - winter 2003). He would have preferred to install the studies where there is a permanent system, but all the existing 128 irrigated plots already had studies on them.

So now we have to get moving before other professors need additional irrigated plots for research. This is where I hope the University comes through. The professors just wrote a grant proposal to the University for \$7,770. That is the amount needed for the remainder of supplies to install the first phase of the irrigation system. This will add 32 new irrigated plots to the Noer Facility. The University has been very generous to the turf program in the past and we remain optimistic they will come through again. They seem to be aware of how important our segment of agriculture is to the state. The state budget crises may hold back how much the University can give this year, but I'm still opti-

mistic. We will know the results of the grant by mid-January.

I feel the grant will be looked upon favorably by the University not only because the turf industry is so important to the state, but also because of donations given by several of you from the turf industry during a fundraising campaign conducted this past fall. Those donations will be considered as matching funds in the grant process to the University. Matching funds help to make a grant proposal look more favorable. The list of who donated is noted here along with the irrigation supplies cost needed for the first phase of the system.

We remain poised to start installing the first phase of the irrigation expansion this coming spring. The timeline that brought us to this point has taken place over four years. The University Foundation owned a ten acre parcel of land adjacent to the Noer Facility that we knew would be perfect for expansion if we ever outgrew our present site. Discussions started in the winter of 1999/2000 to

transfer this land to the Noer Facility. In May of 2000 we dug a new high capacity well and installed a Watertronics pump station sized with the potential to irrigate the additional ten acre parcel of land if we got it. A plan was verbally agreed upon with the University Foundation in 2002 to transfer this acreage to the Noer Facility. The only problems with the land were that it was too hilly and the soil depth too inconsistent for most turf research.

In 2002 Rettler and Associates drew up a grading and plot plan to incorporate 76 new irrigated plots on the new parcel. The Bruce Company then graded the land to a uniform 1.5% grade that same summer. In the fall of 2002 Olds Seed Solutions and Spring Valley Turf Products donated all the seed and fertilizer to establish the land. Olds and Spring Valley remain committed to maintaining the land also. Now hopefully we will be installing the first phase of the irrigation system this spring. We're getting close. ♣

Supplies Donated	Donor	Approximate Worth
2 x Toro Network 8000 satellites	Cedar Creek CC	\$1,000.00
1 x 4" Gate Valve	Watts Regulator	\$450.00
1 x Case of Sprinkler Heads	Toro	\$600.00
25,000' of Wire	Regency Wire	\$1,000.00
Fittings	Harko	\$500.00
40 x Valve Boxes	Bullseye CC	\$400.00
Cost of Irrigation Supplies Still Needed for the First Phase of Irrigation Expansion		
		\$13,470.00
Donor	Matching Funds Donated	
WGCSA	\$2,500.00	
Green Bay CC	\$1,000.00	
Dr. Geunhwa Jung	\$1,000.00	
Abbey Springs GC	\$500.00	
Eagle River GC	\$250.00	
Pendelton Turf Supply	\$200.00	
Merrill Hills CC	\$150.00	
Oscar Miles	\$100.00	
Total		\$5,700.00*
* Dr. John Stier will donate \$2,000 for student labor to help install the system in addition to the \$5,700 donated as matching funds.		
Funds Needed from UW-Madison Grant to Proceed with Irrigation System		
		\$7,770.00

A Brave New Year

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

The old year has passed and the new year has begun. It is the winter season, but I am a bit confused. Aren't these supposed to be the days of deep winter? Isn't January supposed to bring snow, more ice and more cold?

Then why aren't the lakes frozen yet and why do we have to go north of northern Wisconsin to find decent snow? The grass in our town is still green, for heaven's sake!

Skiing, snowmobiling, ice skating, sledding and other winter sports haven't really gotten started. Normally, we start hoping for a warm spell right about now, the traditional January thaw. We are still waiting for the winter freeze, at a time when our thoughts are turning back to golf, the GCSAA conference and even opening day.

This kind of winter seems to be happening with more frequency, inspiring all kinds of speculation about a changing climate. And with the more I read, the more I realize that there may be something to all those theories.

The entire past year was different, weather wise. December

2002 was warmer than normal, by about six degrees, and precipitation was below normal. January continued those conditions with temperatures reaching into the low 50s. The lack of snow cover concerned golf course superintendents and continued into February, but at least the cold temperatures returned. Many of us were hoping the below normal temperatures would take a toll on the over wintering of turf pests.

March was colder than normal, the lack of snow continued and frost was driven deep into the soil, bringing more hope of pest destruction and some of nature's good soil aeration.

Although golf courses opened within the average or normal dates, early April was still cooler than normal and grave diggers reported frost below the seven foot mark in some places in Wisconsin. By mid-month, at least northern Wisconsin was getting rain and the entire state warmed up.

May was cool and precipitation returned. Cool temperatures continued until mid-June, and rain was falling in the northern 2/3 of

the state. By late June, the days heated up and some timely rain fell. July was dry, very dry in some places. Rainfall was hit and miss, and where I work the soil moisture deficit was crowding seven inches.

It was the same story in August - no rain and hot days. By the third week of August, 85% of Wisconsin soils were either very short or short of moisture. Golf courses struggled. Rain started to fall by mid-September, but it was still warm. By month's end, the year-to-date moisture status was nearly ten inches below normal in southern and southeast Wisconsin.

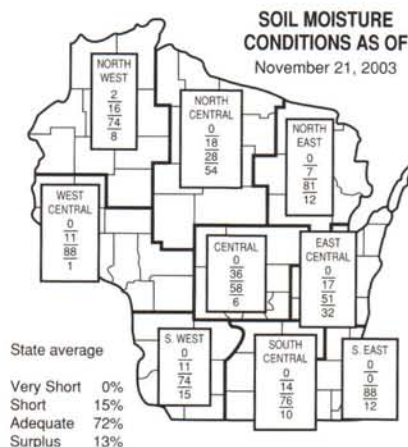
October started cold and the rainfall some so desperately needed was still scattered. Most of the state got rain during the first week of November - at our course, a slow five inches fell and helped push us back up toward soil moisture levels we needed. Heat units for the month were up, helping us wrap up the fall work in preparation for winter.

Statistics from the Wisconsin Agricultural Statistics Service are shown here and on pages 50 & 51 for your records for 2003.

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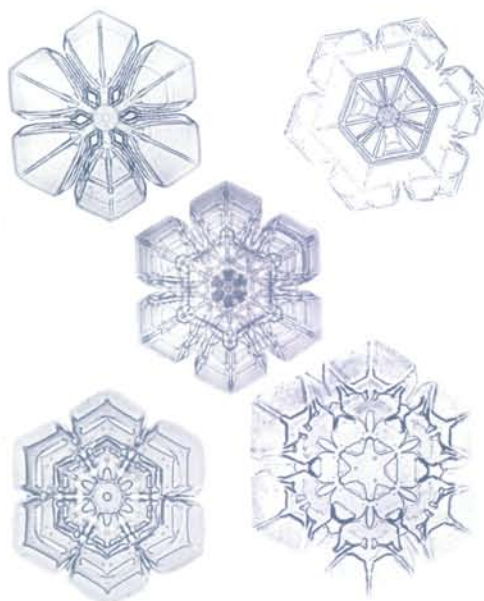
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The first cover of The Grass Roots that was done in color featured Jen Samerdyke's artistic interpretation of W.A. Bentley's snowflake photomicrographs. It was beautiful. Inside, I reported on my trip to Vermont to learn more about Bentley, the "snowflake man." In that story I found out that a large number of Bentley's photographs were in Madison, at the UW-Madison Department of Meteorology. I called the prof in charge of the snowflake photos and he confirmed that they were there.

I now have an update. The Schwerdtfeger Library at the UW-Madison's Space Science and Engineering Center now has the slides, and librarian Jean Phillips digitized the images and put them online. Anyone can see the 1,183 Bentley snowflakes, at <http://mail.ssec.wisc.edu/snow/index.html>. Enjoy!

If you subscribe to Golfweek's SuperNews, you should have received their 2004 "Superintendent's Best Friend" calendar. You have probably noticed that David Herr, golf course superintendent at the Deer Run Golf Course in Brillion, has every reason to be bursting with pride. His basset hound KJ made it into the calendar with a great photo taken on the golf course in the snow!



The calendar is sponsored by Lebanon Turf, and this year the company is initiating an annual "Dog of the Year" contest among the 14 dogs featured in the calendar. The winner will be selected by voting ONLY at the Lebanon Turf booth at the GCSAA conference and show in San Diego.

The winning dog will receive \$2000 for the local chapter - KJ belongs to the WGCSA! - and a \$500 gift certificate for the superintendent. Let's get behind this as a chapter and support Dave and KJ. Visit the Lebanon Turf booth and VOTE!

If you thought last year was hot, you were right. The year 2003 was the third hottest in nearly 150 years, according to the World Meteorological Organization. The WMO estimates the average surface temperature for the year to be 0.81 degrees F higher than the normal 57.2 degrees F.

Scientists think the warmer temperatures are due to a global warming trend. The three hottest years since accurate records began to be kept in 1861 have been in the past six years. The hottest was 1998 when the average temperature was up 0.99 degrees from the previous.

Personally, I hope we return to

normal, or below, for the next few years.

Our land grant college, the great state University of Wisconsin in Madison, has captured some attention nationally lately.

Last year the UW-Madison ranked seventh nationally in royalties and other license income from patents developed by university scientists. That ranking is up from 11th in 2001 in the annual survey of 156 leading research institutions by the Association of University Technology Managers. The amount raised was about \$32 million last year.

And this will make you proud: the most successful patent applications come from the College of Agricultural and Life Sciences.

Additionally, the UW-Madison ranked eighth in the number of U.S. patent applications filed - 204 - and fifth in patents issued - 87.

In a time of tight public money, the income generated by WARF and plowed back into the university helps the institution keep pace.

Since we have faculty members deeply involved in turfgrass research and graduate student education, this will interest Grass Roots readers. The UW-Madison granted the nation's second highest total of doctoral degrees during the one-year period of July 2001 - July 2002. The 649 PhDs ranked second behind UCAL-Berkeley.

Graduate students grind out a lot of research, adding to the new information generated by an institution like Wisconsin.

EXPO will be over by the time you read this, and many of us will be thinking about the GCSAA conference in San Diego. It will be a special year for Wisconsin and a couple of guys in particular are looking forward to the trip. Safe travel for everyone. ♻

MONTHLY TEMPERATURES: 2003 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2003	Normal	2003	Normal	2003	Normal	2003	Normal	2003	Normal	2003	Normal
Degrees Fahrenheit												
NW	40.8	41.7	52.4	54.4	61.5	63.1	68.9	68.1	70.4	65.9	58.8	56.6
NC	39.0	40.4	51.2	53.2	60.7	61.8	66.8	66.4	68.3	64.2	57.7	55.3
NE	39.3	41.3	51.4	53.6	60.9	62.5	69.0	67.0	68.0	64.8	58.9	56.0
WC	45.5	45.2	55.7	57.4	65.3	66.4	71.3	70.8	72.7	68.3	61.2	59.3
C	43.8	44.5	55.0	56.7	64.2	65.8	69.6	70.2	71.2	67.7	61.0	59.0
EC	41.5	42.8	52.0	54.6	62.0	64.1	68.8	69.5	71.2	67.9	62.1	59.8
SW	46.1	46.1	56.0	57.9	65.2	67.2	71.2	71.4	73.0	69.0	61.4	60.5
SC	45.6	45.8	55.5	57.8	65.0	67.2	71.4	71.3	72.3	68.9	62.5	60.6
SE	44.6	45.0	53.8	56.3	63.4	66.0	71.1	71.2	73.1	69.4	63.2	61.4
STATE	42.4	43.2	53.4	55.5	62.8	64.5	69.4	69.1	70.7	66.9	60.2	58.1

1/Preliminary estimates, 2003. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.

MONTHLY RAINFALL: 2003 GROWING SEASON AND NORMAL*

District	April 1/		May 1/		June 1/		July 1/		August 1/		September 1/	
	2003	Normal	2003	Normal	2003	Normal	2003	Normal	2003	Normal	2003	Normal
Inches												
NW	2.53	2.39	5.02	3.29	4.34	4.19	4.08	4.29	1.14	4.44	3.12	3.89
NC	3.77	2.40	4.73	3.31	3.12	4.01	3.35	4.06	1.82	4.36	2.88	4.03
NE	3.76	2.65	3.16	3.29	3.14	3.69	4.09	3.70	2.78	3.81	4.42	3.74
WC	3.08	3.05	5.23	3.69	3.34	4.24	3.12	4.45	1.58	4.54	2.57	3.82
C	2.12	3.02	4.84	3.52	3.55	3.88	3.85	4.13	1.49	4.22	3.25	3.72
EC	2.38	2.81	4.08	2.95	2.83	3.51	5.27	3.38	1.86	3.86	3.36	3.42
SW	2.08	3.55	5.19	3.60	3.32	4.35	3.56	4.33	1.33	4.46	3.23	3.42
SC	1.92	3.47	5.66	3.40	2.69	4.19	4.09	4.07	1.57	4.24	3.48	3.51
SE	1.81	3.48	5.25	3.13	1.98	3.76	4.48	3.82	1.70	4.22	2.29	3.48
STATE	2.77	2.86	4.78	3.37	3.31	4.02	3.88	4.07	1.67	4.27	3.19	3.74

1/Preliminary estimates, 2003. * 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*	1999	2000	2001	2002	2003/1/	Normal*	1999	2000	2001	2002	2003 1/
Degrees Fahrenheit												
NW	63.6	64.0	61.6	64.6	65.8	64.3	22.3	29.2	21.5	25.6	28.6	20.3
NC	62.3	61.5	61.3	63.5	65.2	63.6	22.1	25.6	24.1	24.0	28.0	19.9
NE	63.0	64.1	61.6	63.6	65.3	63.6	20.9	22.8	23.0	21.3	26.9	21.3
WC	66.7	67.2	64.9	67.2	68.8	67.3	23.5	27.5	25.4	27.6	29.3	18.6
C	66.1	66.3	64.7	66.6	68.4	66.4	22.3	25.7	27.1	25.8	24.0	19.5
EC	66.0	66.6	64.7	66.7	68.3	65.8	20.0	22.4	24.5	22.4	20.1	20.3
SW	67.5	67.7	66.0	67.4	69.4	67.8	23.5	30.3	30.6	28.7	24.0	19.4
SC	67.6	68.2	66.5	67.8	70.0	67.8	22.7	28.1	30.6	27.6	20.6	19.0
SE	67.6	68.6	66.6	68.0	70.0	67.4	22.0	27.4	31.8	25.5	21.7	17.9
STATE	65.1	65.6	63.6	65.7	67.4	65.6	22.2	26.7	25.6	25.3	25.8	19.7
Inches												

1/Preliminary estimates, 2003. * Normal is defined as the 30-year average for the years 1971-2000. Source: State Climatologist.