

A Grass Roots Advertiser Has A Birthday!

OLDS SEED COMPANY—A GROWING TRADITION SINCE 1888

By D.J. Meyer

The year was 1888 America was a country of 38 states, Benjamin Harrison was the 23rd United States President, and in Clinton, Wisconsin an ambitious young man named Leavitt L. Olds mailed out 500 copies of a four page price list of seed potatoes. On the cover he proudly proclaimed, "I grew myself every bushel offered." L.L. Olds, the son of a Clinton, Wisconsin farmer had grown up with a deep interest in growing potatoes, so much in fact that he would often skip out of school during spring planting and fall harvest times to help out on his father's farm.

When his father passed away in 1887 L.L. Olds aggressively took over his father's farm and began what is now the L.L. Olds Seed Company.

The potato growing industry began slowly around the turn of the century, and seed potato pioneers like L.L. Olds were responsible for tremendous growth in the industry. By 1920 Wisconsin had become one of the nation's leading producers of potatoes.

At the Chicago World's Fair in the late 1890s Olds Seed Company exhibited 65 potato varieties, one of which was a new development. By this time the Olds seed catalog had grown in size and distribution, and boasted an expanded agriculture product line which included corn, oats, barley, and garden seed. In 1903 L.L. Olds filed state incorporation papers in Madison, Wisconsin. The first report of the Board of Directors voted to give Mr. Olds a \$100 per month salary to manage his business. Some of the company's assets included one black horse valued at \$70, one gray horse valued at \$115, and a wagon with accessories for \$107.

Clearly Olds Seed Company was a progressive and growing company even in the face of disastrous fires which twice destroyed L.L. Olds warehouses of seed, once in 1901 and again in 1908.

It was after the second fire in 1908 that L.L. Olds decided to move his business from Clinton to Madison, Wisconsin. Here he could be closer to the University and work with seed developers.

In 1912 Olds Seed Company was cramped into rented quarters on Wilson Street in Madison. Later that same year Olds Board of Directors accepted a bid of \$47,109 to construct a new facility. And what a facility it would be, standing five stories tall, and constructed of concrete and steel.

Olds Seed Company moved into its new facility in 1913 where Mr. Olds and his employees looked forward to years of growth and prosperity. Little did they know of the economic upheavals that would soon rock the nation.

Throughout the 1920s and 30s the company faced many years of struggles and sacrifices. WWI, the stock market crash, the Great Depression and WWII all impacted the stability of the seed industry. Nationally seed houses suffered. One Kansas City seed house lost \$225,000. Another in St. Louis lost \$250,000. Many others were forced into bankruptcy. Only the better seed houses survived. Olds Seed Company struggled and survived, always looking toward the future and always trying to supply the customer with the best seed available. As Mr. Olds wrote in one of his early seed catalogs, "Good seeds make good customers; both have made our success. What makes a good seed house? My opinion is that quality should be given even greater consideration than all other things put together." Mr. Olds continued to write: "What do you think about it? Pure seeds, vital seeds, trueness to name and type, are not these the things that are of the most importance? Next I would name service, this includes such things as promptness, attention to detail, honesty and truthfulness. If you plant poor seeds you are lost, everything nearly depends on the seed. Make sure you get the best to be secured, the kind we offer regardless of price."

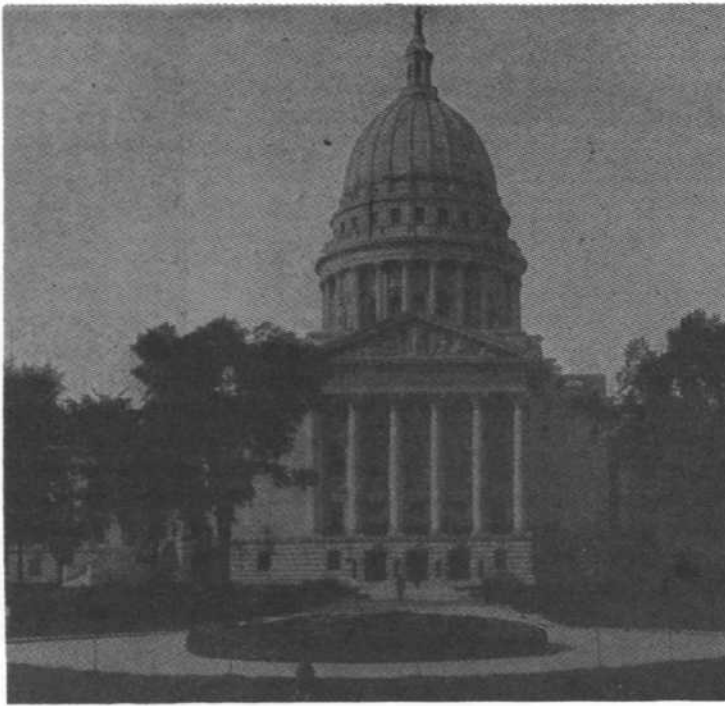
Mr. Olds wrote that letter in 1917. Today in 1988 we are proudly celebrating the 100th Anniversary of L.L. Olds Seed Company. A company begun by a man with dreams and desires to sell only the best seed available, a man who wouldn't quit even when faced with disastrous fires and economic upheavals. Today Olds Seed Company con-



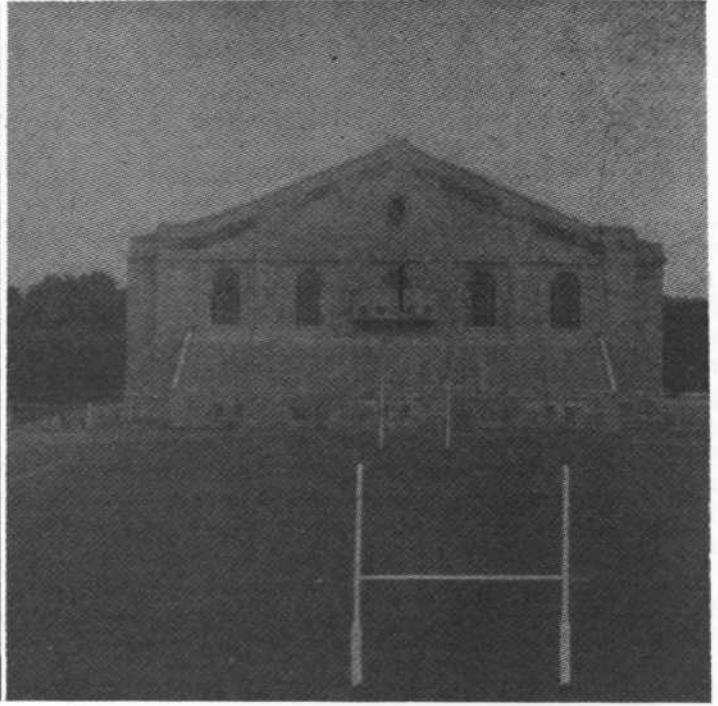
Original Olds Seed Company — Clinton, WI



Olds Board of Directors - late 1800s



Wisconsin State Capital, 1915



Camp Randall Stadium, 1933

OLDS

100th Anniversary Celebration Look how we've grown!

For 100 years now Olds Seed Company has been carefully blending grass seed.

Our 1915 catalog proudly displays Olds Madison Parks grass seed blend gracing the new State Capital. Our 1933 catalog shows Olds Athletic Mix growing in the then new, Camp Randall Stadium.

Today, Olds turfgrass blends are widely distributed in the North Central States. Blends we develop for sun or shade, fairways or greens. Blends that are heat tolerant, drought resistant and highly durable.

The professionals at Olds don't take anything for granted, every turfgrass blend is designed to give you the results you want and need.

This Spring call the professionals at Olds! Call toll free 1-800-397-SEED (7333). In the Madison area call 1(608)249-9291.

- * CUSTOM BLENDING
- * LARGE SELECTION OF ELITE BLUEGRASSES AND FINE-LEAF PERENNIAL RYEGRASSES
- * FREE DELIVERY



L.L. Olds Seed Co. P.O. Box 7790 Madison, WI

tinues to thrive under the same principles set by L.L. Olds.

As we enter our second century of operations serving the Upper Midwest we do so from a foundation of financial stability and excellent reputation. Our company goal is not to be the largest seed company in the nation, from a geographical standpoint, but to be the best seed company in both quality and service in the Upper Midwest.

The Upper Midwest is our specialty, and your home turf. To bring you the best, we've assembled a team of well qualified seedsmen, agronomists and horticulturists. Our wholesale trade area is serviced by eight district sales representatives. Our effective trade area covers all of Wisconsin, Northern Michigan, Northern Illinois, Eastern Iowa, and Southwest Minnesota.

Specialized product managers are individually responsible for our farm, garden, turfgrass seeds, and horticultural supplies. As we search for new germplasm and supervise research activities, they continually upgrade our products.

Quality control of Olds Seeds is in the capable hands

of our registered seed technologist, who operates our modern, well-equipped seed testing laboratory. Therefore as technology grows, so do we.

Olds' continued success will be dependent on new varieties, varieties borne out of research.

Olds Seed Company has a close working relationship with private and public breeding organizations that specialize in contractual breeding work. These organizations execute standards established by Olds Seed Company. These two essential components give Olds a great benefit in the seed industry. That benefit is the ability to carefully select only the top performing and most disease resistant varieties available from a number of top breeding organizations.

It has been well over a century since Leavitt Olds ran home from school to help plant potatoes with his father, and if he could come back today I'm sure he would be proud to see how the fruits of his dreams and hard work have grown into an organization that is a leader in the Upper Midwest's agriculture industry.



Chicago World's Fair



Retail store at Williamson Street



First floor warehouse



County fair exhibit - 1917



Wilson Street office - 1910



The morning after the fire of the main warehouse - 1908



Chris Wendorf, Turfgrass Products Manager



Seed Lab & Technologist — 1980s



Current Olds Warehouse



Customer service department



Shipping and receiving docks





Vern Paulson
Deliveries — 1940



Williamson Street facility — 1913



Seed technologist — 1940



Milling room — 1940

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Bulk or Bag Delivery

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Milwaukee Metropolitan

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Milwaukee, WI 53202
(414) 278-2034

Horst Distributing, Inc.

444 North Madison Street
Chilton, WI 53014
(414) 849-2341



Fungicide Changes In 1988

By Dr. Gayle L. Worf
Department of Plant Pathology
University of Wisconsin-Madison

Changes continue in the evolution of fungicides available to help with the task of keeping turf healthy. Here are some gleanings of changes I've noted over the past year.

1. Loss of chemicals. I'm sure most of us are aware of the loss of Actidione TGF by result of company decision. Courses who relied upon this product as a low cost, moderately effective fairway dollar spot control fungicide will probably be looking at a higher price, but fortunately there's a pretty good arsenal of products available for this particular disease. Don't get stuck with a possible future disposal problem—if you have any Actidione left, use it up!
2. Banner (propiconazole) was registered in June, 1987, for control of dollar spot, powdery mildew, rust, anthracnose, brown patch, red thread and stripe smut diseases. The label also describes it as an "aid in the control of *Helminthosporium* spp" and for "fusarium blight". We were pleased with its effectiveness against *Helminthosporium* in bluegrass trials last year. It might not be the first choice if that were the primary purpose for application, but it should help fill the leaf spot gap that can occur in mid-summer on bentgrasses when chemicals ineffective against that disease are being used. Although

brown patch is on the label, it may not be as effective as you would like for this problem. Be prepared to supplement with something like Daconil or thiram if necessary.

3. Scotts has introduced a new liquid fungicide, Fluid Fungicide III, which packages together triadimefon (same active ingredient as in Bayleton) plus thiram. The combination is intended to beef up areas where triadimefon is known to be weak, particularly leaf spot and brown patch. One would expect improved performance for those diseases. The active ingredient rate of triadimefon is at a level that you should not expect extended control of dollar spot, e.g. if you're used to getting 21 or more days of dollar spot control at labeled rates of Bayleton, you're not likely to get the same with "III" because it appears that the rate has been reduced to more or less match up with the length of time of thiram effectiveness. Watch your timing of application, disease development, and weather patterns to get the most out of this—or any other—combination product.
4. Formulation changes. You won't be seeing the wettable powder formulation of Rubigan much longer. It's being replaced with the "A.S." liquid product. Chipco 26019 is also on the market as a flowable product this year, although it is my understanding that the wettable powder

product will continue to be offered. We've been very pleased with Chipco 2F performance compared to the "wp" formulation over the past two seasons. There's some real safety advantage to the flowables and liquids, too, in my opinion, as it greatly reduces the likelihood of getting a face full of dust during mixing times. The main reason we've not seen changes more rapidly has been the difficulty of maintaining efficacy along with proper shelf life characteristics. For instance, "Daconil" pioneered in efforts to convert from "wp" to flowable, and encountered many problems with settling, caking and reduced efficacy before hitting upon the right process. We may see more of the systemics becoming available as emulsifiable concentrates in order to encourage more uptake of product by the foliage. However, this is not too critical for turf, since uptake by roots is a useful alternative or complementary route in this crop.

Ciba Geigy has also recently announced a reduction in active ingredient of metalaxyl in their granular Subdue, from 5G to 2G. This product, used in both turf and ornamental disease control, is applied at such low rates that users were encountering difficulty getting good distribution of product. By going to the more diluted formulation, more total product is applied per 1000 ft² or per unit, and better results are expected. It's difficult enough getting properly calibrated and accurate distribution of granular products, in my experience!

I hope your disease control efforts this coming summer are rewarding—regardless of which products or formulations you choose.

Rob Schultz — A National Finalist



A story written by Rob Schultz, author of "The Sports Page" in each issue of *THE GRASS ROOTS*, is a finalist in a national sportswriting contest sponsored by the Associated Press Sports Editors. Rob's story on the Green Bay Packers' 1967 "Ice Bowl" is among the ten finalists in the "Best Feature Story" category for newspapers under 50,000 circulation. The winners will be announced sometime in April.

Schultz's story appeared in *Wiscon-*

sin's Greatest Sports Moments" last November. This magazine, published by his paper, *The Capital Times*, is also a finalist in this competition. Although the quality of Rob's writing has been obvious to readers of *THE GRASS ROOTS*, the kind of recognition a national competition like this brings reminds us in a special way how fortunate we are to have him as a part of our magazine.

Congratulations!



The Electronic Pipeline

By Dennis Thorp

Let's take a look into the future: It is a hot July night in the early 1990s and Golf Course Superintendent John Q. Grassmanager cannot sleep. His wife and children are fast asleep, but something is bothering him and he can't seem to drift off. Finally he gets up and goes to his desk for some thinking time. He uses his personal computer to check on his golf course and there are no apparent problems there. The computer controlled irrigation system is functioning normally, but perhaps that south-facing slope on 14 fairway could use another 10 minutes of water, so he changes that. The microclimate reporting system gives him readings from around the course and alerts him that the conditions will be optimum for Pythium development in three days. A call to the Turf Grass Information File (TGIF) at Michigan State for a quick check on the latest in Pythium control and Poa decline shows that a researcher in New York has just published a paper that shows promise for an interesting new control technique. That might bear looking into, and he "downloads" (moves copy from one machine to another) the file so he can print it out in the morning. A quick check of his inventory shows a potential shortage of fungicide if he has to spray one more time than he anticipated when he placed his chemical order last January, so he places an order with Chuck. Messages on TURF-BYTE show that he isn't the only person with grass problems. The St. Louis area has been particularly hard hit by disease this year and the crabgrass in Pittsburgh has been notably resistant to control. The information that Duane out in Lawrence, KS sent to him was very helpful, so he sends a thank-you there and Jon down in Louisville, KY has been having trouble with his new XYZ fairway mower and a tip on an adjustment technique is sent there. Finally, John ties into CompuServe and checks the bookstores in the Electronic Mall for the new bestseller he has been looking for. It's in, so he orders it online.

His mind at ease, Mr. Grassmanager turns off his computer and goes to sleep. Total time involved — 20 minutes.

Even though the preceding paragraph seems to cover an abundance of items, it is really only about one thing — the flow of information. At present, Mr. Grassmanager has to physically go to his course to see how the irrigation system is performing, and then he may have to talk to the night waterman or check a printout to see what hopefully happened. As for evaluating the microclimate. . . most of us have to rely on a thermometer, rain gauge and the weather report. Information on the latest research comes to us at meetings and shows, or through our reading. When I was in college, it was a maxim that the information in a book was at least three years out-of-date by the time it was published. With the sum total of human knowledge doubling every eight years or so, we need faster access than that. Magazines are much faster and electronic file transfer faster yet. Then there is the game of the 80's — telephone tag. "Hello, this is Duane. Is John in?" Sorry, he's out on the course." "Have him call me when he gets in. And on and on. It happens all the time with other superintendents, sales reps and family. Plus the minute I hang up, I always remember something else I wanted to talk about. How much easier it can be if we can compose messages on a word processor and transmit them to a central clearinghouse at the touch of a button. Then the person we want to contact can compose a reply at leisure and transmit it back the same way. Imagine the day when a ringing telephone no longer interrupts our train of thought. TURFBYTE, CompuServe and the Turfgrass Information File exist today and I will tell you more about them later.

During the early 1980's, the personal computer (PC) was forecast to be the next common home appliance, much like a toaster or radio. The PC would monitor and control the home environ-

ment, help prepare the family meals and balance your checkbook. There were two little problems with this scenario: anyone not smart enough to know how to balance a checkbook could never figure out how to use a computer; and using a \$2,000 PC to do what a \$9.95 calculator could do just as well did not make much sense to most people, and rightly so. It would be like using a chainsaw to slice butter. I have always followed one simple rule when I choose whether or not to "computerize" a task: KISS (Keep It Simple, Stupid). If any task is better done with pencil and paper, then do it that way.

There is one task that the PC can do for any homeowner or small businessman better than any other alternative: Telecommunications — a PC with a MODEM (modulator-demodulator). Do not get too concerned with what it is or how it works — basically it converts what you see on the screen into a format that can be transmitted or received over the phone lines) and access to the telephone lines, has access to massive data bases, containing billions of bits of information on everything from Alpha particles to the Zodiac, are updated continuously. People and computers are linked together by networks allowing inter-active and almost instantaneous response. This is what I call the "electronic pipeline."

After my first article, I got a nice note and package from Peter Cookingham, Project Manager of the Turfgrass Information Center at Michigan State University. He had checked the 11,200 references currently in the TGIF to see what was listed under the heading of "computer". The resulting printout is 43 pages long and it would take me a year to read all the abstracts on that subject alone. I'm almost afraid to ask about crabgrass. Pete says they should be ready for dial-up access in a month or so. For the present time, contact him at the USGA Turfgrass Information File, Turfgrass Information Center, Library W-212, Michigan State University, East

Lansing, MI 48824-1048. Their telephone number is (517) 353-7209 and they are open Monday-Friday 8 a.m.-5 p.m. EST. I plan on making much more use of this service.

Just last week I received a news release from Duane Patton, Lawrence Country Club, Lawrence, KS, announcing TURFBYTE, an electronic bulletin board maintained by golf course superintendents for golf course superintendents. It is just getting off the ground and currently supports 300 and 1200 baud modems with parity settings of 8 bits, no parity, 1 stop bit. (Your communications software will ask you for this information.) The hours of operation are from 4:30 p.m. to 7:00 a.m. Central Time daily. The phone number is 913-842-0592, and Duane is available during business hours for voice communications by dialing the

same number. I have not yet had the opportunity to tie-in, but I am looking forward to doing that. This is another opportunity to contribute to growth in our profession, as the more this service is used, the better and more valuable it will be. Programs and tips will be shared by the participating superintendents, and it will be a chance for people with similar interests to communication with one another.

An electronic bulletin board is very similar to the bulletin board at your shop. Messages can be posted there and read by interested parties. The only difference is that you need a computer, modem, communications software and a telephone line to use an electronic one. There is probably a local electronic bulletin board in the city where you live.

Those people who saw the movie

War Games got a demonstration of telecommunications and using one computer to communicate with another one at a remote location. The hardware is much more sophisticated now, but the principles are the same. Messages can either be read by everyone contacting the service or addressed to one particular person. It is similar to going to the post office to check the mail.

Information flow continues to increase in speed. Just keeping up with the daily newspaper and the nightly news consumes a lot of time. Our professional reading can more than fill the time available and the computer and telecommunications can help us keep up.

Topics for next month: my first contacts with TURFBYTE and developing an electronic budget.

THE GENTLE GIANTS

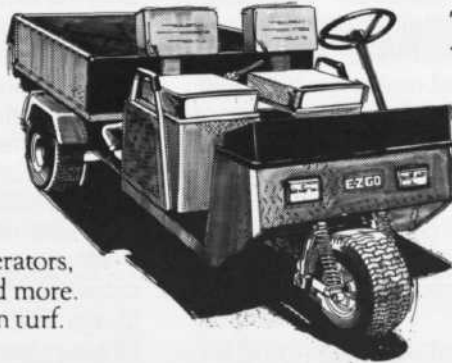
Here are E-Z-GO's hard workers in three- or four-wheel, gas or electric models. With durable, diamond-plated steel Polane-coated panels and load beds, including options such as sprayers, aerators, spreaders, top dressers, and more. Each one tough but easy on turf.

The GXT-1500

Here's the heavy-duty workhorse in the line. Powered by an 18 H.P. engine for payloads of up to 1500 pounds. For golf course or public grounds, its large load bed has sides and tailgate. Options include a hydraulic dump, PTO, and range changer. The GXT-1500 adapts to many accessories: sprayers, spreaders, top dressers, and aerators to handle any job.

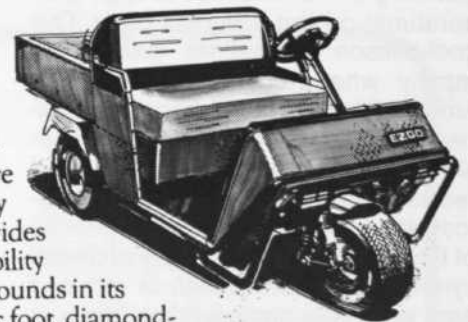
The GXT-800

Reliable, economical, this mid-size hauler more than pulls its own weight. It has a two-cycle, 244cc engine with rack and pinion steering, heavy-duty springs, and hydraulic shocks, plus a whopping 1000-pound load capacity. Options and accessories such as cabs, bed covers and loading ramps make it an ideal all-around utility vehicle.



The XT-300

This is a reliable three-wheel electric answer for a wide variety of jobs where maneuverability is critical. It provides a payload capability of up to 1000 pounds in its roomy 5.7-cubic foot, diamond-plated load bed.



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ROLE OF NUTRITION IN THE STRESS TOLERANCE OF TURFGRASS

By Dr. Wayne R. Kussow
Professor of Soil Science, University of Wisconsin-Madison

A prolonged period of high temperatures and relative humidity placed turfgrass in southern Wisconsin under tremendous stress this past summer. How well the turfgrass came through this period depended very much on three things: (1) the condition of the turfgrass at the onset of the stress period; (2) management practices employed during the period of stress; and (3) the recuperative capacity of the turfgrass once temperatures and humidity subsided. Nutrition played an important role in all three of these aspects of tolerance to heat stress.

TURFGRASS HEAT STRESS

Knowledge of the role of nutrition in the tolerance of turfgrass toward heat and humidity begins with an understanding of the influence of high temperatures on the turfgrass plant. Our cool-season turfgrasses grow most rapidly when air temperatures are around 70°F. When temperatures exceed 85°F for several days in succession, growth slows perceptibly. The reason is an imbalance between photosynthesis and respiration. Because of this imbalance, the supply of photosynthate for plant growth is reduced and, what little photosynthate there is available for growth, is preferentially consumed in the turfgrass shoots. This not only halts root growth, but leads to die-back of root systems. It is not unusual during prolonged periods of heat stress to have a 60 percent or more reduction in the size and/or depth of turfgrass roots and rooting.

High air temperatures also elevate turfgrass transpiration rates. Water loss rates from turfgrass in Wisconsin go as high as ¼-inch per day when air temperatures climb into the 90°F range and a breeze is blowing. Extraction of this quantity of water by a reduced root system growing in a relatively small volume of soil becomes problematic. Early afternoon wilting of turfgrass is common, particularly when growing in sandy or compacted soils. With wilting comes greater susceptibility to damage from foot and vehicular traffic and added stress on the turfgrass plant.

High daytime air temperatures also

lead to high soil temperatures. During nighttime hours, the grass blades cool much more rapidly than the warm soil. Warm, moisture-laden air rising from the soil surface contacts the cooler leaves causing water to condense on the leaves. The leaves then become ideal environments for the growth of disease-causing organisms, particularly if bruising of the leaves has occurred earlier in the day. Bruising releases plant cell substances that are energy-rich foods for disease organisms and provides places for the organisms to enter the turfgrass plants.

ROLE OF NITROGEN

Turfgrass growing in the presence of favorable temperature and adequate moisture is extremely sensitive to the amount of N supplied. Insufficient amounts of N result in poor color, reduced photosynthesis, slow shoot growth rates and restricted root, tiller, rhizome and stolon development. Hence, stand density is low. Weeds readily invade the turf and compete for water, light and nutrients. The turfgrass is susceptible to certain diseases such as red thread and dollar spot and is very slow to recover from any type of damage.

At the other extreme, supplying turfgrass with large amounts of N during periods of favorable temperature and moisture leads to rapid shoot growth at the expense of root growth. The turf has excellent color and, because of its lush growth, appears to be of excellent quality. When N-induced surges in topgrowth are followed by high temperatures, respiration consumes much of the carbohydrates produced during photosynthesis and reserve carbohydrates are rapidly depleted as the plant strives to maintain high shoot growth rates. Evapotranspiration rates are high and, should moisture supplies become limiting, previously depleted root systems are unable to provide shoots with adequate amounts of water. At this point the turfgrass becomes highly susceptible to physical damage and to diseases such as pythium and anthracnose. Because carbohydrate reserves have previous-

ly been exhausted and root systems curtailed, the ability of the turfgrass to recover from physical, insect or disease damage is very low.

From this discussion, it is apparent that all aspects of turfgrass stress tolerance very much relate to the N fertilization program being followed. The key factor is how much N gets into the turfgrass plant at different times during the season. This, in turn, depends on when the N is applied, at what rate and in what form.

A sound N management strategy for turfgrass emphasizes a late fall application of N that promotes root, tiller and underground stem growth at a time when air temperatures limit shoot growth response to the N. Because some of this late fall N is not utilized until the following spring, N application the following year can be delayed to such time that air temperatures suppress shoot growth response. This greatly reduces the chances of adversely affecting root growth. Under these circumstances, the turf is in the best condition possible to cope with summertime heat and moisture stress.

When prolonged periods of heat and moisture stress occur, there are two things that can be done to minimize stress-related injury. The first is to suspend N fertilizer applications normally scheduled for that period of time. Application of N does not offset turfgrass color decline resulting from heat stress and has the risk of over-stimulating shoot growth once temperatures subside. Should the latter response occur, evapotranspiration rates will increase and accentuate moisture stresses. The second action that helps ease turfgrass through periods of heat and moisture stress is to decrease the mowing height and to increase the frequency of mowing. This is not always possible, but when done will reduce the turfgrass demand for water.

ROLE OF PHOSPHORUS

Research has demonstrated that application of phosphate can promote root development in turfgrass. This is the basis for fertilizer sales campaigns that promote use of high phosphate fer-