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SUPERINTENDENTS.**

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**President's Message**

I just received a letter from Mr. Bill Roberts, C.G.C.S., superintendent at Sentry World in Wisconsin along with being a candidate for directors of the G.C.S.A.A. In his letter, he was bringing to light a recent network television advertisement many of us viewed during the P.G.A. Championship held recently at Cherry Hills Country Club in Denver, Colorado.

This advertisement, approved by the P.G.A., showed a golf professional holding a soil probe which implied that someone other than the golf course superintendent was responsible for the excellent playing conditions enjoyed not only by the tour players, but by the American golfer day in and day out. The impression given by this piece of advertising seemed to be that the Golf Professional was the one making the decisions, taking the responsibilities and contributing to the game through golf course management.

I believe that this bit of advertisement was not only a slap in the face in the superintendent of Cherry Hills Country Club, but to the whole greenkeeping profession. Also, I believe that the P.G.A. lacked class and professionalism not to properly recognize the superintendent for what he knows and does. Why mislead the general public trying to upgrade the profession of a golf professional?

It is time that our national association look into the possibility of buying some advertisement time on a national telecast of a golf tournament to inform the golfing public of the importance of the golf course superintendent. If that is not feasible, possibly the P.G.A. and the G.C.S.A.A. could combine on an advertisement to emphasize the working relationship between the golf professional and the superintendent.

In summary, I think Bill Roberts made a very astute observation with the golf pro holding the soil probe. Also, I think the golf course superintendent should be recognized publicly for the job he does in giving not only the touring pros excellent conditions to play on, but all golfers day in and day out.

**Joe P. Williamson, C.G.C.S.**

## MAGCS Directors Column

### “So, Who’s Complaining”

by David Behrman

Deer Creek Golf Club, Park Forest, IL

On a recent trip to the hardware store, I chanced upon one of my fellow superintendents. The topic of conversation, as it often is, was the weather. As we became quite involved, one of the salespersons stood by and listened intently as we discussed rainfall, temperature, and humidity as if our very existence depended upon the weather and the weather alone. After much discussion and consoling over the hand Mother Nature had been dealing us lately, we came to the conclusion that the weather in Chicago is changing. For the good or bad we didn't know, but, it was definitely changing. Now that this dilemma was settled, we turned to go about our business. At this point the stores ever patient employee had one unnerving comment, “You guys complain more about the weather than the farmers.” As I drove back to the golf course, pondering this personal assault, I decided to find the answers to a few questions that Chicago weather had brought to mind.

Is the weather in Chicago really changing?

Is there one ideal place in Chicago where the weather is better?

Do superintendents really complain more about the weather than farmers?

In order to find the answers to these menacing questions one needs a better understanding of Chicago weather and its' predestiny to change.

Chicago weather is primarily determined by its' location. Sitting in the center of a vast band stretching from the arctic of the north to the warm gulf waters of the south. Lacking any major land barriers, icy cold or warm moist air masses have equal access to the area, often colliding over Chicago in a struggle for dominance. The factor that moderates these two warriors is Lake Michigan; which helps control the temperature extremes.

Major weather systems are guided into the area by dominant winds blowing 18,000 feet above the ground. These currents bring weather from three locations. The cool of Canada when the northwest current blows. As it diminishes the western winds of the Pacific may predominate and bring weather across the rockys or southwesterlys provide Gulf moisture for our air.

So, the possibility for a change in the weather can come as quickly as a change in the direction of the wind. It is almost that simple, but, what about the fact that the weather seems to be changing. Is that really true? Yes, in fact the weather can change constantly due to environmental changes made by man. How many golf courses when they originally built were surrounded by farms and open space, rather than, homes and office buildings? If you fall into this category, many changes took place so slowly that you may not have realized they were taking place. The summer temperature averages two degrees warmer and the winter as much as five degrees warmer. Humidity is about six percent less. There are ten times as many dust particles in the air. You will find you experience cloud cover ten percent more than you used to. There is a one hundred percent increase in winter fog and thirty percent more summer fog. Finally, wind speed is twenty to thirty percent less. Gusts have decreased and the wind calms five to twenty percent more. (I wonder if any of this affects your maintenance program.) So,

it is safe to say our weather is changing. As to whether we are experiencing changes on a large scale it is harder to prove since weather bureau records only date back to 1870. However, scientists are sure that the very environmental changes I mentioned earlier combined with industrial pollution are impacting changes on a large scale. It also appears these changes are occurring very slowly and will require a significant amount of time to document a major climate change in a area such as the midwest. It can be noted, however, that due to the increase in the size and number of the buildings in the city of Chicago it now affects weather in all the surrounding areas. This occurs due to the fact that the city produces a large mass of warm, humid, dust laden air; known as a heat island. This air combines with the cool upper atmosphere to form clouds. These clouds combine with incoming storms to form a storm of greater intensity as it leaves the city; causing heavy rains, thunderstorms, hail, and strong winds generally in a area twenty to thirty miles from the city, the location of which depends on wind direction. (I think many of us have dealt with this type of storm).

Now that we all thoroughly understand Chicago weather we can easily answer question number two. Is there an ideal location for weather in Chicago? Yes. (Any guesses as to where.) If you answered the north shore, you are correct. By this I mean the area along Lake Michigan north of the city. This area is two to five degrees cooler in the summer and averages two to five degrees warmer in the winter. It receives between one and three more inches of rainfall than any other area. There is always a slight breeze either coming off or moving onto the lake dependent on the land and water temperature difference. And finally the air is cleaner due to this breeze and the lakes cleansing action. (It almost sounds like heaven.)

As for the final question, “Do superintendents really complain more about the weather than farmers?” Well, the jury is still out on that one. I'd personally like to think we're just more vulnerable to the effects of adverse weather. After all, weather not only causes wilt, wet wilt, disease, and desiccation; I have also seen weather raise blood pressure, trigger an upset stomach and it has even left a few hangers in the wake of a storm. So, what seems like complaining to outsiders is probably two professionals engaged in the lively art of conversation.

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### Announcing GCSAA Regional Seminars

On January 6-7, 1986, the Midwest Association of Golf Course Superintendents is planning to co-sponsor with GCSAA two, two-day seminars at Pheasant Run Resort in St. Charles, Illinois. A combination of a management seminar and technical presentation make a nice choice for superintendents to choose from on a regional basis. Dr. James Beard is giving a class on **Basic Turfgrass Botany and Physiology**. A presentation by Dr. J. Stephen Hazel titled **Business Communication and Assertiveness Techniques** will be given simultaneously to balance your choice for one of two very popular educational sessions.

Betsy Evans from GCSAA has been working with Peter Mirkes and Peter Leuzinger from MAGCS. This will be our fourth year to co-host a regional seminar. Our seminars are becoming more popular every year. Watch for GCSAA's announcements so you can get your name in early.

## "Roger Stewart Reports"

The 1985 MAGCS Nominating Committee is composed of the following MAGCS Past Presidents: Len Berg, John Berarducci, Ed Fischer, Peter Leuzinger, and Roger Stewart. The Nominating Committee has placed the following names in nomination for the 1985 MAGCS Annual Election:

For President:

Mr. David Behrman, Deer Creek Golf Course

For First Vice President:

Mr. Jim Evans, Turnberry Country Club

Mr. Phil Taylor, Sugar Creek Golf Course

For Second Vice President:

Mr. Michael Nass, Bryn Mawr Country Club

For Director:

Mr. Sean Daley, Ridge Country Club

Mr. Bruce Williams, Bob-O-Link Golf Club

Mr. David Loutitt, Oak Hills Country Club

Mr. Dennis Wilson, Sunset Ridge Country Club

Mr. Tim Kelly, Village Links of Glen Ellyn

Mr. Ray Schmitz, Flossmoor Country Club

Mr. Al Fierst, Oak Park Country Club

Four directors are to be elected.

Respectively submitted,

Roger A. Stewart, Jr., CGCS

Chairman

1985 MAGCS Nominating Committee Chairman

A Personal Note:

This last official task as Nominating Committee Chairman marks the close of six years of direct involvement for me on the MAGCS Board of Directors. It is an occasion for which I have many mixed emotions. I have seen and been involved in so many positive and progressive steps that the MAGCS has taken in the last six years and I feel extremely good about that. I feel the MAGCS achieved many goals during my tenure on the board and I feel good about that. I am also left with a feeling that we must continue to do the things that will put the MAGCS in the forefront as the representative of our profession. The MAGCS is on a track that leads to the sky with the only limiting factor being the strength of determination and will that each and every member of MAGCS that the up and coming engineers of that train have the leadership to guide us and all we have to do is give them the support to fuel our train to a future brighter than ever before. I wish to sincerely thank all MAGCS members for their support over the past six years while I was on the MAGCS Board of Directors and especially those Officers and Directors who made my term as President in 1984 so memorable. My last parting comment is to all MAGCS members who aspire to work as a member of the Board of Directors; DO IT! It is perhaps the most rewarding thing you may do in your career. My last parting request of all MAGCS members is; Be at the Annual Meeting and prove to yourself that your vote is your voice in the future of MAGCS.



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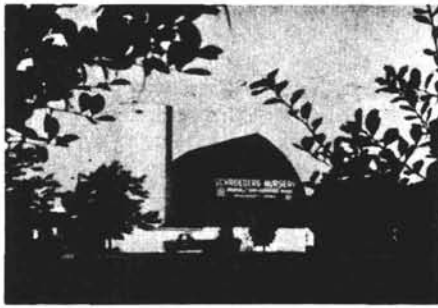
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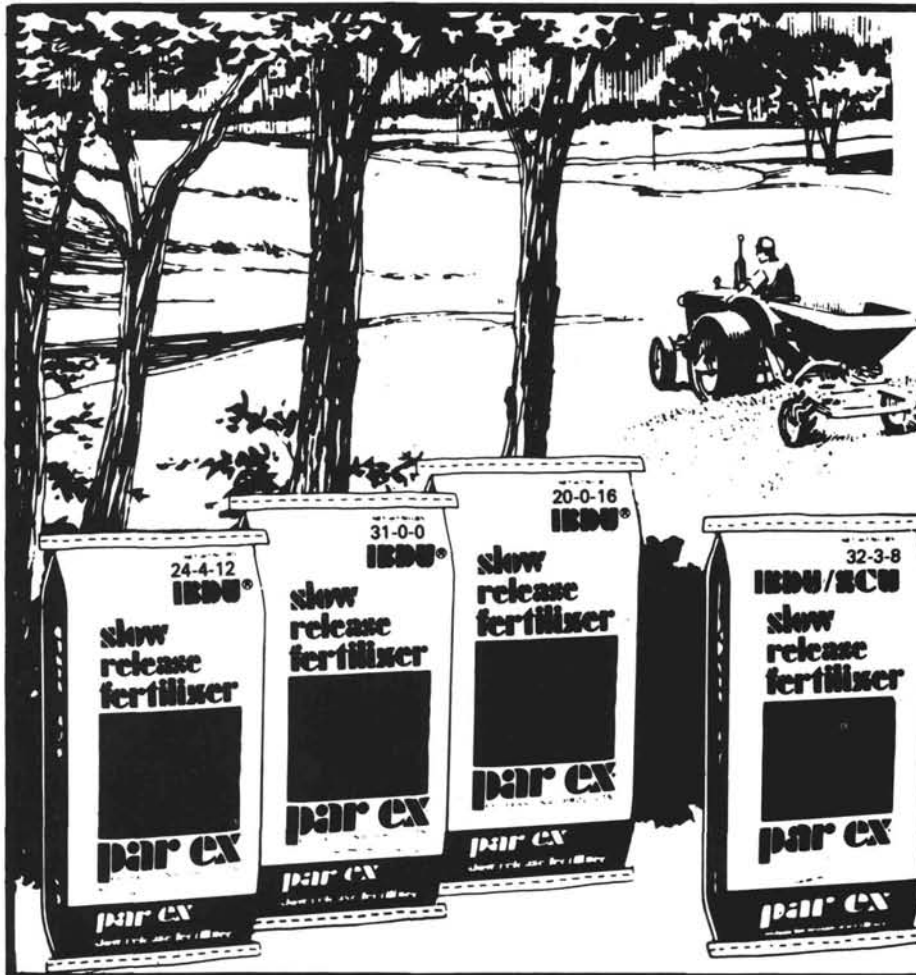
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## Candidates Fact Sheet

**David Behrman** — Golf Course Superintendent, Deer Creek Golf Course, 8 years. MAGCS member, 8 years. MAGCS Board member, 4 years. Graduate Penn State, 2 year program. Married to Chris and has one child. Running for President.

**Jim Evans** — Golf Course Superintendent, Turnberry C.C., 7 years. MAGCS member, 6 years. MAGCS Board member, 2 years. Graduate BS Agronomy, South. Ill. Univ., MS Agronomy, South. Ill. Univ. Married to Debby and has two children. Running for 1st Vice President.

**Phil Taylor** — Golf Course Superintendent, Sugar Creek Golf Course, 5 years. MAGCS member, 5 years. MAGCS Board member, 2 years. (1 year left on Director's term). Graduate BS Purdue. PGA member. Married to Marilyn and has two children. Running for 1st Vice President.

**Mike Nass** — Golf Course Superintendent, Bryn Mawr C.C., 9 years. Certified Golf Course Superintendent. MAGCS member, 9 years. Past President, ITF and CGCSA. MAGCS Board member, 1 year. (1 year left on Director's term). Graduate BS U. of I. in Turfgrass Management. Married to Jean and has two children. Running for 2nd Vice President.

**Sean Daley** — Golf Course Superintendent, Ridge C.C., 4 years. MAGCS member, 7 years. MAGCS Board member, 2 years. Graduate Penn State, 2 year Turf Program. Single. Running for Director.

**Ray Schmitz** — Golf Course Superintendent, Flossmoor C.C., 7 years. MAGCS member, 18 years. Certified Golf Course Superintendent. Graduate Univ. Of Wisc., BS Agronomy & Soils. Married to Jan and has three children. Running for Director.

**Bruce Williams** — Golf Course Superintendent, Bob-O-Link G.C., 6 years. MAGCS member, 6 years. Certified Golf Course Superintendent. Member CDGA Turfgrass Research Advisory Committee. Member GCSAA Education Committee. Vice Pres./Treas. CGCSA. Graduate Baldwin - Wallace College, BA English/Speech Path. Graduate with honors, Michigan State, 2 year Turf Program. Married to Roxane with one child and one on the way. Running for Director.

**Dave Louttit** — Golf Course Superintendent, Oak Hills C.C., 4 years. MAGCS member, 5 years. MAGCS Golf Committee member, 2 years. Graduate BS Turf Management, Penn State. Single. Running for Director.

**Dennis Wilson** — Golf Course Superintendent, Sunset Ridge C.C., 7 years. MAGCS member, 14 years. Graduate Rutgers Univ., 2 year Turf Program. Graduate U. of I., 1 year Turf Program. Married to Pat and has three children. Running for Director.

**Al Fierst** — Golf Course Superintendent, Oak Park C.C., 9 years. MAGCS member, 9 years. President CGCSA. Graduate Ball State, Univ. BS Education. Graduate Michigan State, 2 year Turf Program. Single. Running for Director.

**Tim Kelly** — Golf Course Superintendent, Village Links of Glen Ellyn, 11 years. MAGCS member, 11 years. Past President CGCSA. Graduate Dayton Univ., BS Business Management. Married to Linda Kay and has one child. Running for Director.

## Working Smarter, Not Harder Or (Liquid Fertilizers are Effective In Fall Fertilizer Programs)

Mark D. Stauffer, Ph.D.  
General Manager, CHEM-EX

Most, if not all of us, know how hard we can work but do we really know how to work smart. Questions concerning the way we do things usually are left unanswered and instead evoke the response "I've done it this way all along so it must be right (after all, I'm working hard)". Its working smarter when we challenge ourselves to analyze the 'hows', 'whats', and 'whys'.

I use this to introduce the subject of a recent conversation with golf course people during which the following question and comment were made.

"Why not use liquid fertilizers in the fall like we do in the summer? After all, if they perform so well under (summer's) stressful conditions, won't they give the same benefits in the fall."

That comment provokes thought and analysis. **LET'S BE SMARTER.**

First when we talk about fall fertilization programs, what do we want to accomplish? Usually it is to

- (1) Maintain top quality playing conditions throughout the remainder of the season;
- (2) Relieve plant stresses incurred over the summer; and,
- (3) Precondition the grass plants for winter survival, as well as provide early vigor the following year.

These are a greatly diverging set of conditions. From the plant's point of view one means "keep me going at a good pace"; another means "catch-me-up"; and a third means "slow me down". Obviously, the entire fall season exists in which to accomplish this. Fall seasons however, vary from year to year, so turfgrass managers need to have maximum control. Control which allows you to stage each of these conditions at the appropriate time. One good method to achieve this level of control is by using liquid fertilizers. Full formula liquid fertilizers offer the capability to best manage valuable turf.

Secondly, and more specifically, a fall fertilizer program must improve the turf through

- (1) plant propagation;
- (2) root proliferation; and,
- (3) plant hardiness.

With a decrease in temperature and moisture stress, fall provides an opportunity to revitalize turf vigor. Deep rooting, healing and general vigor need to be promoted. Cooler temperatures and abundant moisture only facilitate stress relief, whereas sound nutrition promotes health and vigor.

**Plant propagation** is simply thickening the stand. After the mowing, traffic, temperature and moisture stresses of summer, the plant is weakened. Consequently, so are tiller and rhizome development. Since Bentgrass tillers and rhizomes develop most during September and October, N, P and K are required to stimulate that development. N is required for foliar coverage. Growth responses also result from P and K applications. The 3:1:2 N-P-K ratio has been cited as a well-balanced feed for turfgrass. Applications of a balanced fertilizer at bi-weekly intervals promote rejuvenation by supplying nutrients without causing excessive growth.

Liquid fertilizers provide an easy and efficient means for

"limited feeding". With nutrients being more available and coverage more thorough, each plant is nourished at the desired rate and to the desired level. In Bentgrass, high soil levels of P and K favor *Poa annua* invasion. Frequent, low rate foliar applications can mitigate against raising soil levels for these elements. Where P and K levels are already high, liquid fertilizers can provide a means for feeding without exacerbating the soil problem. Also, University of Illinois research suggests that greater emphasis be given to late summer-fall fertilizer programs since high N rates applied in spring caused a higher incidence of disease (*Fusarium* and *Helminthosporium*) in susceptible varieties.

**Rooting proliferation**, as is the case with plant propagation, is retarded by stress during the summer. Fall then becomes the time to play catch-up as well as improving root growth. Even though rooting activity is at a maximum in the fall, research shows that N and K nutrition increase the rate of activity. The benefits resulting from improved rooting are obvious, yet the situation of supplying nutrients without over-stimulating top growth can be tricky. The means for accomplishing this follows the same rationale used in plant propagation. Caution must be used however, since excessive N can restrict rooting by shifting the plant's metabolism too much towards foliar production. Hence the need to control the balance between top growth and root growth.

**Plant hardiness** for winter survival requires preconditioning. Here too, turfgrass plants often must be brought from sub-optimal conditions to a high level of condition. In that conditioning phase, the plant's metabolism shifts towards increasing levels of protein and total non-structural carbohydrates in the tissue. Although temperature has an effect on these functions, proper nutrition enhances metabolism. Balanced N-P-K feeding improves winter hardiness. Studies have shown that raising the level of K enhances the effects of N on winter hardiness. However, high and unbalanced N rates will reduce hardiness through increased tissue hydration.

Micronutrients make the plant's utilization of the major nutrient even more efficient than the balancing of N, P and K. They increase enzymatic activity, and in many cases, the protein and carbohydrate metabolic functions necessary for winter survival.

The liquid fertilizer system gives good control and allows the fertilizer management system to meet the three objectives of **maintaining, relieving and preconditioning** the grass.

The keys to a fall fertilizer program should be 'balanced' and 'controlled' nutrition. **Balance** means providing nutrients in the proper ratios. Plant growth must continue throughout the latter part of the growing season and provisional nutrition must be made for it. However, feeding must not supercede the plant's endogenous rhythm that is taking it into the hardening process. That is, sufficient nutrition in the correct balance will promote plant vigor without delaying the winter hardiness process. Feeding limited quantities throughout the fall season allows the turf manager **control** over the amount and rate of feeding, according to the plant's needs and the type of season.

To review what your fertilizer program must do, it must be: adequate for plants' to recuperate from summer's stress; sufficient to maintain good growth necessary for a playable, well-conditioned course; and subsequently, allow the plant to harden

(cont'd. page 9)



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(Working Smarter cont'd.)

for winter. These can only be achieved through good management. Don't rely totally on climate to control the release of nutrients. Remember, each year varies from the other end and you may end up with an undesired release of nutrients. Excessive top growth has an adverse effect on the plant. (In addition, it can have negative consequences for the manager when summer help is gone and additional mowing is required).

The question then is: How can liquid fertilizers meet this challenge? The very characteristics that make it desirable for a summer fertilizer program are the attributes you want for a fall program.

- Safe - low burn potential
- Controllable - low rates uniformly applied every 14 days supplies the plant's requirements of fertilizer nutrients without overstimulating growth. As the season winds down you can fertilize according to the plant's need.
- Effective - plants perk-up and maintain vigor and health. A 3-1-2 ratio amended with micronutrients provides efficient fertilizer utilization by the plant.
- Complimentary - tank mixes of fertilizer with fungicides or

herbicides (if necessary) can be made. This provides the basis for implementing an efficient, effective total **preventative** program.

- Easy to handle - totally water soluble which allows precise feeding. Sprayed uniformly over the entire area, each plant is fed, regardless of the rate of application.
- Cost effective - (1) high valued greens as well as tees are fertilized with the correct fertilizer formulation and treated independently from fairways. (2) Minimal amounts of fertilizer are lost when greens etc. are clipped since fertilizer on leaves is partially absorbed foliarly while the remainder runs down towards the crown and roots. (3) Fertilizer is applied at rates which allow it to be **consumed** 'to the max!', not left to the consequences of the environment.

**The Final Analysis.** Fertilizing at ¼ lb N every two weeks costs approximately 0.5 cents per square yard. Good nutrition is a primary factor in maintaining a healthy green. By comparison if weedy species, Poa annua for example, or disease encroach forcing replacement, that square yard will cost a minimum of \$4.00. NOW LET'S BE SMART.



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