MAAGCS

August 1995

Turfgrass Matters

Mid-Atlantic Association of Golf Course Superintendents

Why Chelates?

The growing use of micronutrients, and their effect on overall plant health and yield has spawned an increasing amount of misinformation and confusion on the differences between inorganic micronutrient sources. The following attempts to clarify at least some of the major sources of confusion between chelates and sulfates.

Each micronutrient will react, both in fertilizer mixes and in the soil, in different ways. This is mainly due to the inter-reactions in the fertilizer blends of each micronutrient and eventually in the soil. To explain chelation and the advantage of chelates, zinc has been chosen simply due to the widespread use of zinc and the high areas of zinc deficiencies in most states.

Solubility, availability and protection of the zinc molecule are the three key words to chelation. In a gallon of 10% zinc chelate, there are approximately 30 to the 23rd power zinc molecules which are chelated. This protection

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allows the zinc to remain soluble and available. The zinc will not convert to zinc carbonate, zinc ammonium phosphate or other unavailable forms, because of the chemical shield which surrounds the metal, either in the soil or the fertilizer blend.

Each crop planted requires different levels of zinc for optimum yield. Again to make zinc chelation simple, let's use one crop example of corn, with a crop yield of 150 bushels to the acre.

Many soil labels consider 1.3 to 1.7 ppm or above (using the DPTA extraction test) as sufficient. At .5 ppm or less, a recommendation of 10 lbs per acre of elemental zinc may be given. (1)

Tissue testing would require 10 to 50 ppm in the ear leaf at silk; 20 to 50 ppm in the whole plant at the 30 to 4 leaf stage, to be in the sufficient zinc range for the crop. (2)

Using the same analogy as above, a 150 bushel corn crop would remove approximately .15 pounds of zinc from the soil. Again, not much zinc. (3)

The reason for this point is that it simply does not take much zinc to raise a 150 bushel corn crop, <u>if</u> the zinc is available and water soluble.

But what would cause the zinc to be unavailable? To look at this, we must consider what happens when we put zinc sulfate in the soil. First, we need moisture to break the granule down. Then the area surrounded by the acid from the sulfate allows the zinc to be available, chemical reactions in the soil start to work and the zinc or a percent of the zinc is converted to zinc carbonate, zinc oxide, zinc ammonium phosphate or zinc phosphate. Thus, a chelate protects the metal from conversion to a source that is not available to the plant. (4)

Senior V.P., Ruffin Micronutrients

This is exactly the point about chelates. Chelates are soluble and available to the crop during the season. If we put down one quart of zinc per acre this equates to .29 lbs of soluble zinc per acre, nearly double the amount removed by the crop.

When we take a soil test and receive the report back, it tells how much zinc is in the soild, not how much is soluble or available. For zinc deficiencies to appear, a high soil pH, a soil low in organic matter with a high pH or a cool wet soil may be the reason or a high phosphate level that could cause a zinc deficiency.

Due to the unique ability of chelating agents to protect the zinc molecule in the soil this allows the zinc to become and remain available, while preventing zinc tie up in the clay structure of the soil. It is this ability which allows zinc chelates to be sold on efficiency ration of 1 part chelate to 10 parts inorganic zinc. When we place an

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MAAGCS Board of Directors

President

Scott D. Wagner Leisure World of Maryland 3701 Rossmoor Blvd. Silver Springs, MD 20906

Home Phone: (301) 253-1110 Office Phone: (301) 598-1580 FAX Phone: (301) 598-1079

Vice President Frank (Bill) Shirk, CGCS Queenstown Harbor Golf Links 310 Links Lane Queenstown, MD 21658

Home Phone: (410) 827-9157 Office Phone: (410) 827-7518 FAX Phone: (410) 827-5258

Secretary Mike Gilmore Turf Valley Country Club 2700 Turf Valley Road Ellicott City, MD 20143

Home Phone: (410) 823-4350 Office Phone: (410) 465-0595 FAX Phone: (410) 465-9282

Treasurer Dean Graves

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Home Phone: (410) 647-3064 Office Phone: (410) 222-7923 FAX Phone: (410) 222-7320

Director - Communications Chris Ayers Lakewood Country Club 13901 Glen Mill Road Rockville, MD 20850

Home Phone: (301) 977-7978 Office Phone: (301) 762-0570 FAX Phone: (301) 424-1421 Director - Membership Gregg Rosenthal Little Bennett Golf Course 25901 Prescott Road Clarksburg, MD 21209

Home Phone: (301) 831-8610 Office Phone: (301) 253-6072 FAX Phone: (301) 601-9208

Director Education Sean Remington Chevy Chase Club 6100 Connecticut Avenue Chevy Chase, MD 20815

Home Phone: (301) 794-4391 Office Phone: (301) 656-6323 FAX Phone: (301) 656-4653

Director - Social & Benevolence Gordon Caldwell, CGCS Greenspring Valley Hunt Club P.O. Box 755 Owings Mills, MD 21117

Home Phone: (301) 581-0590 Office Phone: (410) 363-2248 FAX Phone: (410) 363-9499

Director - Golf Jim McHenry Caroline Country Club 24820 Pealiquor Road Denton, MD 21629

Home Phone: (410) 479-0998 Office Phone: (410) 479-0666 FAX Phone: (410) 479-0666

Director - Financial Bernie Beavan, CGCS Breton Bay Golf & Country Club Route 3 Box 25K Leonardtown, MD 20650

Home Phone: (301) 475-5913 Office Phone: (301) 475-8070 FAX Phone: (301) 475-8070

President's Message

Many thanks to both our June host, John Newcomb, and our July host, Ed Gasper. Both of them provided us with outstanding days for our meetings, and excellent golf courses. Our August picnic will be held at Bretton Woods Recreation Center and our host for the day will be Ken Ingram. As always this will be a day of enjoyment for the entire family, with plenty of games for the children and plenty of drink for the adults.

I would like to take this opportunity to inform the entire membership that we have canceled our contract with the Tharp Group. The Board of Directors took this step to ensure that the membership was being served in the best possible way. The new address is: M.A.A.G.C.S., P.O. Box 4465, Lutherville, MD 21094-4465, and the phone numbers are: (410) 825-4653 and (800) 726-6501. Please feel free to call this number or any Board member with questions you might have. Just think, September is only 30 days away!

From the Editor...

As Director of Communications, I realize the role and importance that good communication plays in our daily lives. It is our intent to put together an informative newsletter and get it to you by the middle of each month. We have not accomplished this recently. In the future, look for a one page announcement, containing all the necessary information for the upcoming meeting, to reach you **prior to the R.S.V.P. date.** The monthly newsletter should arrive around the middle of the month. We want everyone to have the necessary meeting information in a timely manner and we believe a one page flyer is the answer.

Our newsletter can be an important communications tool. We want and need your input in order to provide you with a quality newsletter. So, please help us by continuing to send articles about what you are doing at your course, what works, what doesn't, or articles of a technical nature that can be educational. Also, we are always looking for small tidbits of information that can be used in the "News & Notes" section of the newsletter. Whether it is a re-routing, birth, illness, marriage, simple announcement, or a change to your course, we are interested in adding it to our "News & Notes" portion of the newsletter. Remember, our newsletter can only be as good as you help make it.

Attention Class "F" members, many of you have not responded to the mailer sent out in April outlining the advertising and sponsorship programs. Supporters are listed in the back of each newsletter and the center section of the annual directory. I have contacted all of the supporters from last year to personally make sure you were aware of the programs. As one of the first places a superintendent looks when he needs help, the supporter list is an affordable marketing tool. Any class F member who has questions or would like to be included on the list should contact Chris Ayers at (301) 762-0570

Lastly, I mentioned earlier, that we want to continue to send out a one page flyer designed to arrive prior to the meeting R.S.V.P. date. This flyer will detail all the necessary meeting information and will be sent to all members of the Association. In order to continue this useful service, we need additional sponsors to defray the cost of the mailing. Each flyer will have an exclusive advertising opportunity for a class F member. All those interested should contact me at the above number.

Mid Atlantic Association of Golf Course Superintendents

Government Relations... Summary of Maryland Legislature Activities

Our immediate Past President, Lou Rudinski, reports that the 1995 Maryland Legislature had a relatively "slow" year where golf courses were concerned. There were a total of three bills that were of concern to the Maryland Association of Green Industries (MAGI) and its lobbyist, Maxine Adler. The two House Bills were narrowly defeated in committee and the Senate Bill passed committee with amendments, but was defeated by the appropriate House committee. The following is a summary of the three defeated Bills:

House Bill 738 would have established a pesticide incident reporting system within the Department of Agriculture with cooperation from the Departments of Environment, Water Resources, Health and Mental Hygiene, as well as the MaryInd Poison Center. The Department would have been required to set up a "hotline" so that **anyone** could report suspected misapplications, reactions to pesticides and potential threats to human, animal, or plant-life. All reported incidents would have to be investigated, verified, logged into a permanent record and remedial or corrective action taken. A data base of statistics regarding specific information about each incident would have to be developed, maintained and compiled into an annual report.

House Bill 742 would have required pesticide licensees to provide all golfers with at least 48 hours notice of a pesticide application.

Senate Bill 569 would have required golf courses to use Municipal water, if it was in the proximity, limit use to an average of 25,000 gallons per day, if a permit was granted, and the user would have been required to prove that they were adequately protecting and preserving the adjacent property owners from environmental degradation of the existing ground water and natural resources.

These Bills were scary, not only because of the cost and hardships involved to implement, but because they all would have had a detrimental effect on the daily maintenance of our golf courses. Nothing happened this year, but the writing is on the wall, so whenever you have a chance to get involved and be proactive, please do so!

A Productive Relationship Between Golf Professional and Golf Course Manager

Tom Beidleman, Head Golf Professional Cattail Creek Country Club, Glenwood, Maryland

In the ever increasing world of golf management companies and downsizing of club management structures, the changes in Golf Course Manager and Golf Professional roles have put a tremendous strain on working relationships between the two positions. In an attempt to cut out "fat" in payroll budgets, clubs have lost an important ingredient in the success of golf programs - the healthy relationship between the two positions that allow each professional to show his expertise.

On a daily basis, the two positions interact to provide a golf atmosphere that is seen and enjoyed by members and guests of a facility. If this interaction is interrupted, either by a poor working relationship or lack of communication, what is ultimately produced is a program that appears to be lacking organization and direction. In either case, the argument for combining or eliminating one of the two positions becomes stronger. However, if the Golf Course Manager and Golf Professional work harmoniously, both positions become stronger and create a management team that is respected and supported by their superiors.

Communication is the key to all successful working relationships and cannot be limited to a series of "memo writing". Communication starts with a clear understanding of another's goals and thinking in terms of the overall mission of a program. It is not enough to deal with problems as they arise, but rather, to plan in order to avoid problems. If each professional has the same objectives, this process is certainly made easier. However, if two opinions differ as to the overall direction of the program and club, it does not mean that the communication process is over. It simply means that it will require more work on each person's side to compromise for the good of the program. And the more work spent on improving this relationship, the more each position will be elevated, creating a better and more satisfying work environment.

Maryland Turfgrass Council Scholarship Program

The Maryland Turfgrass Council (MTC) Scholarship Program was established to assist individuals pursuing formal turfgrassrelated education.

The Board of Directors of the Maryland Turfgrass Council awards the scholarships annually. The selection criteria for the scholarship are as follows:

1. Applicant must be currently enrolled in a college-sanctioned turfgrass program, in his or her second year or third semester.

2. Applicant must have worked at least 6 months in a turfgrass-related field-golf course, sod farm, etc.

3. The student must have a G.P.A. accumulative of 3.0 or higher.

4. Applicant must be sponsored by an individual in the turfgrass business.

5. Sponsor must write a letter of recommendation for the applicant.

There will be three \$1,000 scholarships awarded. The Scholarship Committee will recommend applicant(s) to the Turfgrass Council for final approval.

Application deadline for the Fall of 1995 and Spring of 1996 semesters is September 15, 1995. Applications should be mailed to:

> R. Wayne Evans CGCS 16473 Old Frederick Rd. Mount Airy, MD 21771

Any questions concerning the application process can be directed to Wayne Evans at (301) 854-6709.

inorganic zinc in the soil, the chemistry of the soil begins to attack the zinc, as explained about the zinc sulfate earlier. What percentage of the zinc is really available when the plant needs the zinc? We don't know. This depends on the factors pointed out earlier. A point made many times is that with applications of zinc sulfate, zinc is building up in the soil, no wonder at 10 lbs or more zinc metal per application. 100 lbs of zinc metal in the soil would build it up also, but it <u>may not</u> <u>feed</u> the crop if it is not soluble or unavailable or tied up in the soil.

The last factor is environmental. With many zinc products, we are placing high amounts of lead or other heavy metals in the soil.

Per part CFR 503 sewage sludge technical regulations the monthly application rate of lead is 300 parts per million. For zinc it is 2800 parts per million, cadmium 39 parts per million. How much heavy metals are you spreading on your soild with each micronutrient application? With the current OSHA and EPA laws on record don't you think it is time to ask how much is there?

To summarize the 10 to 1 ratio:

A) Chelates move with the water, to provide season-long nutrients to the plant. The EDTA begins to break down after 6 months leaving carbon, nitrogen, a very weak acid and zinc mol ecules in the soil. None of these would cause problems in the soil, or get into groundwater.

B) There are approximately 30 to the 23rd power molecules of zinc in one gallon of chelate which equals to over 12 million molecules of zinc per acre.

Why Chelates?

cont. from page 1

C) They are soluble, available and are free in the soil to move with the soil moisture.

D) They feed the crop all through the growing season.

E) They are cost effective.

F) Lastly, they work and have worked for over 40 years.

Coming Next...

MAAGCS Picnic Wednesday, August 9th

Bretton Woods Recreation Center welcomes back the MAAGCS Picnic Wednesday, August 9th. There have been a lot of changes at Bretton Woods since our last meeting in 1993. It's hard to imagine BWRC without Gerry Gerard and Larry Ott, but both gentlemen have left the center and are off to bigger adventures. Beginning in January 1995 our owners, the International Monetary Fund, entered a management arrangement with the Marriott Corporation and we are operating as a Marriott Conference Center. The facility itself is relatively unchanged, however, and the purpose of this article is to highlight some recreational activities nearby that we have overlooked in the past.

Bretton Woods is located on the Potomac River roughly 25 miles from downtown Washington. The C&O Canal National Park borders the course and offers some of the best hiking, biking, and canoeing found in the area. BWRC is located between Violet's Lock and Riley's Lock, both locks have access roads off River Road or you can park at our soccer fields and use a gate onto Violet's Lock Road. Violet's Lock was an inlet lock bringing water into the canal and the river is navigable to the north. To the south there are about five miles of beautiful white water and rocks culminating at Great Falls. Riley's Lock is also a historic lock, having one of the four aqueducts on the 60 mile canal taking the canal over Seneca Creek. You can see Loew's Island Golf Course directly across the river. The tow path is perfectly flat and you can walk or ride for miles. My favorite ride is to the north to Summit Hall Turf Farm about six miles. At Swain's Lock, two miles outside downtown Potomac, you can rent bicycles and canoes. If the weather is too hot for exercising and you have never visited Great Falls Park on the Maryland side, or if you haven't been since the bridges to Olmstead Island were completed, you really should go, it's beautiful and not far out of your way to BWRC. Turn left in Potomac on Falls Road about two miles, then right at the end on Canal Road and follow the signs to the park.

Once you reach Bretton Woods, we have golf, tennis, swimming, soccer, basketball, beach volleyball, fishing and plenty to eat and drink. Leave work early, bring the family and make it a day to remember.

Picnic Information

Time: 4:00 pm to 8:00 pm at the Tennis Pavilion.

Golf: 11:00 am Shotgun, no exceptions. We need to resemble a golf outing as much as possible. \$25 per person.

Swimming & Tennis: Sign in and state that you are with the MAAGCS.

Directions: BWRC is 13 miles outside the Beltway, 8 miles past Potomac on River Road (MD 190) at the intersection of River Road and Seneca Road (MD 212).

DON'T FORGET!!!

R.S.V.P.

1-800-726-6501 410-825-4653

WE WILL BE ACCEPTING RESERVATIONS FOR THE PICNIC UP THROUGH FRIDAY, AUGUST 4TH

> PLEASE BRING A COVERED DISH OR DESSERT AND KIDS!!!



Are We Taking Ourselves Too Seriously?

Michael Gilmore

While attending a seminar at the GCSAA conference in San Francisco, one that dealt with the Human Resources end of our business, I was amazed at the seemingly negative attitude of the majority of people in the room. Negative about dealing with OSHA, employees, employers, and just about everyone and everything, they deal with on a day to day basis. It gave me cause to consider if this was representative of the majority of Golf Course Superintendents or just a fluke. After a good bit of thought, I was somewhat amazed that it doesn't seem to be a fluke.

Ask a Golf Course Superintendent how things are going and a common reply is started with "aghhhh! ... " and what follows is a laundry list of problems. And if a person says "Things are going pretty good, the course looks good, my staff is great and my employer treats me pretty well" then he or she is looked upon with a very skeptical eye. I have spoken with Superintendents whose course were almost perfect, and they have sounded as if they were ready to jump off the highest building. I heard one line from a local superintendent, who at one time was a high stress kind of guy, and after I commented about his new, somewhat relaxed, attitude, he said he realized that when grass dies, only grass dies, not people. Some people may be inconvenienced in their golf game, but that's it! A relaxed attitude is not a sign of weakness or lower standards. It is a way of dealing with things, some in your control, and most not in your control. In an environment that is always changing, it is important to be flexible and to be able to deal with change in such a way that you do not compromise your sanity.

Teachers have a salary that caps at \$40,000-\$45,000 (in a good system), police and firefighters reach that if they are lucky. People who make a daily contribution to the quality of everyone's life are under stress, they can start conversations with "aghhh..." and everyone understands. When someone, making a bit more money than these people, and in many cases a lot more money, and being in our business, starts complaining about things it does not seem to sound so important. We are faced with many obstacles in our jobs, but in the end we need to remember exactly what it is we do - we provide a place of recreation!

Think about how lucky we are to be part of a profession that provides us the opportunity to protect our environment, provide wildlife habitats, and produce spectacular scenery for the people we serve and those around us who marvel at our work. Take credit for all of these and don't be afraid to pat yourself on the back, now and again, and take pride in your accomplishments. When someone pays you a compliment, say thanks and enjoy it. When they criticize, don't take it personally. I have a number of friends who are well paid lawyers, doctors, and other professionals, who see our business and have told me they would trade places with me in a heartbeat. Either they are crazy or they see a neat profession! In a time when defense contractors are scaling back their work forces by thousands, and the business world seems to be downsizing its labor force, we in the golf business are enjoying a booming, thriving growth spurt. We are lucky to do what we do. A number of years ago, I heard Steve Martin, the actor/comedian, say something about his line of work that I feel is one way to view our business and remember, "The most amazing thing to me is...that I get paid for doing this!" Good luck.

Golf Notes

The 1995 2-man championship had one of the largest fields ever. We had 32 teams competing this year at Springfield Golf & Country Club. Everyone that played owes Ed Gasper a big thank you. He and his staff had the course in excellent shape for us. Ed, thanks and congratulations on a job well done.

Some great golf was played and the winners were:

Gross	1st	Scott Wagner Jim McHenry	71
	2nd	Paul Brandon Bill Appel	71
	3rd	Bill Shirk Tim Sage	72
	4th	Nick Vance Glenn Smickley	
Net	1st	Mike Evans Dave Osterhous	57 e
	2nd	Jeff Facto Todd Cowing	59
	3rd	Ted Savia Dave Fetzer	60
	4th	Lee Dieter Dave Fairbanks	60
	15.9		

Our thanks to G.L. Cornell and Turf Equipment & Supply for sponsoring part of our gross and net Prizes.

Closest to the Pin winners were:

- #4 Bill Appel
- (Egypt Farms: sponsor) #6 Sean Remington
- (Davisson Golf: sponsor) #11 Gregg Rosenthal
- (LESCO: sponsor) #13 Dave Osterhouse
 - (O.M. Scotts: sponsor)

Long Drive winner was:

#15 Keith Pitchford (Turf Equip. & Supply: sponsor)

Mid Atlantic Association of Golf Course Superintendents

Golf Results

May The Superintendent / Pro Tournament was held at Suburban Club on May 9. Bob Miller and his assistant, Doug Fleming, had the course in excellent shape for our annual event. The winners for the day were as follows:

Paul Krout/Bob Leeman-Bonnieview 63 Net 1st 2nd Lester Tanner/Frank Stoppa-Enterprise 64 3rd Scott Wagner/Luther Showaker-Leisure World 65 4th Bruce Steinmiller/Dave Hansinger-Cambridge 66 5th Lou Rudinski/Bill Molloy-Eisenhower 66 6th Jim McHenry/Bob Rementer-Caroline 66 7th Lentz Wheeler/Dave Newsome-Hidden Creek 67 8th Steve Potter/Barry Fuhrman-Woodholme 67 Gross 1st Mike Larsen/Lyle Williams-Woodmont 69 **Closest to the Pin** #2 Joan Lovelace Pro at Fairway Hills #6 George Renault Supt. at Burning Tree #13 Frank Stoppa Pro at Enterprise Walter Montross Supt. at Westwood #16 Long Drive Nick Vance Supt. at Rattlewood #7

#10 **Bob Rementer**

Sponsors

Closest to the Pin: Davisson Golf #2 and #16 Egypt Farms #6 Helena #13 Long Drive: Turf Equpment & Supply #7 Soft Spikes #10 Hole in One: Waterworld/Earthtec-Par 3's Other Sponsors: Finch Turf Equipment-Luncheon **O.M. Scotts-Net Prizes** G.L. Cornell-Beverages Turf Equip. & Supply-Gross Prize Hole Sponsors: Ace Tree Nurseries Ault, Clark & Assoc. Finch Turf Equipment G.L. Cornell Harford Minerals Hydro-Drain (Ken Cominsky) Lesco Prolawn (Mark Bujac)

Pro at Caroline

Challenge Cup Results (Held at Eisenhower)

This year's competition among superintendent associations was won by the Philadelphia Association. The MAAGCS representatives were: Scott Wagner, John Newcomb, Nick Vance, and Jeff Blind - Gross/Lou Rudinski, Bill Neus, Paul Massimore, and Steve Potter - Net.

Pro Seed

Turf Equipment & Supply (2)

United Horticulture Supply

June Our gross/net tournament at Forest Park Golf Course had 43 players competing over a fine golf course that was a lot of fun to play. Many thanks to John Newcomb and his staff for having the course in such good shape. We should also thank BMGC for hosting our June meeting.

Our winners for the day were:

Gross:	1st	Paul Brandon 75 Net:	1st To	m Cassat 65
	2nd	Ken Braun 76	2nd	Tod Cowing 67
	3rd	John Newcomb 77	3rd	Kevin Mathias 68
	4th	Scott Wagner 77	4th	Dave Fairbanks 68

The long drive winner, sponsored by Finch Turf Equipment, was Sean Remington. Closest to the pin winners and sponsors were: #2 (O.M. Scotts) George Renault, #6 (Egypt Farms) George Renault, #12 (Harford Minerals) Ken Ingram, and #13 (Prolawn-Bujac) Jeff Facto. Congratulations to all the winners and thanks again to our sponsors.

Player of the Year points are starting to accumulate, with two tournaments counting toward total points. Look for an update.

News & Notes

Congratulations to Dino Psaroudis, assistant superintendent at Lakewood Country Club, and his wife Debra who had a daughter, Stephanie Nicole, on April 20.

Our condolences to the family and friends of Frederick C. "Fritz" Zeller who passed away on May 2nd. Mr. Zeller was a member of the Mid Atlantic Association of Golf Course Superintendents and the GCSAA. He was a superintendent at Fredericksburg C.C., Shannon Green, and Aquia Harbor. Mr. Zeller was 76 years old.

Michael Koeritzer, formerly a superintendent at Baltimore Country Club, has moved to the Cleveland, Ohio area to accept the superintendent position at Aberdeen G.C., a brand new course still under construction.

Congratulations to Greg Rosenthal, C.G.C.S., who recently earned his Certification from the GCSA. Greg, A MAAGCS Board Member, is Superintendent at Little Bennett Golf Course.

John Newcomb, C.G.C.S., is the new Superintendent at the South River Golf Links.

Steve McKisson, formerly at Carrol Park G.C. is now at Forest Park. Steve succeeds John Newcomb.

Mid-Atlantic Newsletter Supporters

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Mid Atlantic Association of Golf Course Superintendents

Newsome Seed Company

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