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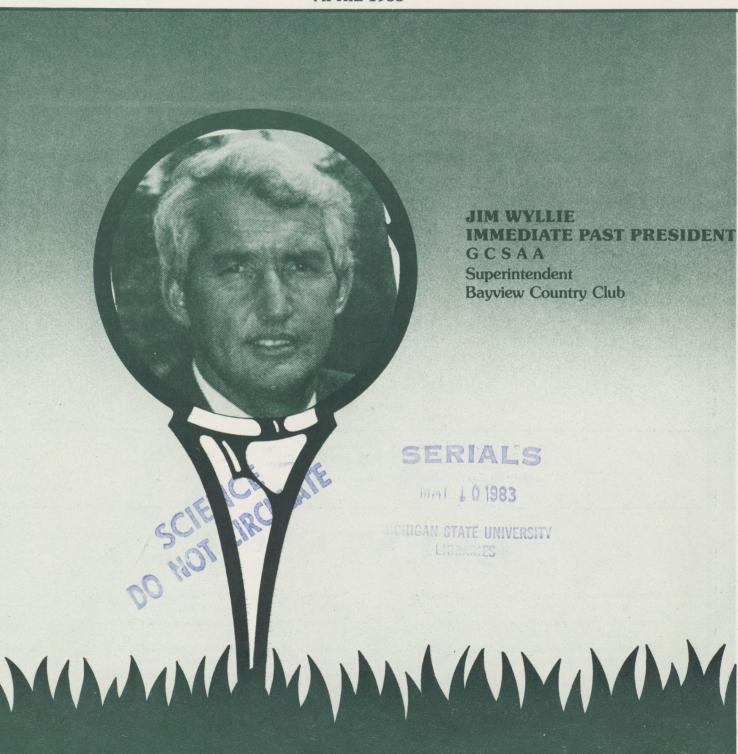
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APRIL 1983





ONTARIO GOLF SUPERINTENDENTS ASSOCIATION

BOARD OF DIRECTORS FOR 1983

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NEWSLETTER EDITOR

Barry Endicott

NEWSLETTER CORRESPONDENTS

John Hutchinson

Bill Fach

Robert Kennedy

EVENTS' 83

OGSA/Southwestern/Michigan Border Cities Meeting

April 26 - Roseland Golf Club - Windsor

Joint Western Greenskeepers Assoc/OGSA Meeting May 5 - St. Catharines Golf and Country Club

Joint South Western Superintendents Assoc./OGSA Meeting May 24 - St. Clair Parkway Golf Club - Mooretown

Galt Field Day and Turf Trials

June 9 - Galt Country Club and Cambridge Turf Plots

Pro-Superintendent Golf Tournament

June 24 - Islington Golf Club - Toronto

Western Ontario Greenskeepers Assoc. Meeting

June 28 - Nanticoke Golf Club

President, Greens Chairman, Superintendent Golf Tournament July 18 - Essex Golf and Country Club - Windsor

Western Ontario Greenskeepers Assoc. Meeting

July 21 - Beverley Golf Club

Joint Western/OGSA Meeting

August 23 - Beaverdale Golf Club - Cambridge

New Members

Douglas Meyer - Cedarbrook Golf & Country Club, St. Sophie, Quebec Class A

Gordon Walkinshaw - Toronto Ladies Golf Club, Toronto Class A

Paul Weidmark - I.B.M. Golf Club, Markham Class A

Stewart Picken - Royal Downs Golf Club, Utopia Class A

Tom Kenyon - Southern Pines Golf & Country Club, Mount Hope Class DD

John Cowie - Thames Valley Golf Club, London ClassF

Christopher Dew - Sarnia Golf Club, Sarnia Class F

Wayne Rath - Victoria Park Golf Club East, Guelph Class F

Julien Gremonprez – St. Thomas Golf Club, St. Thomas Class F

Eric Kingston Sales Limited, Toronto, M. D. McDowell Class E

ON THE MOVE

Kim Hanley Blue Mountain Golf Club

Kim is a native of Kitchener Ontario. He is a graduate of the turf short course at the University of Guelph. Kim has been working at Brooklea Golf and Country Club for the past three years where he has been the assistant superintendent under the direction of Neil Acton.

Dave Chapman Glendale Golf Club

Dave is 32 years of age and he has a Diploma in Agriculture from the University of Guelph. He has been the assistant superintendent at the Cutten Golf Club for the past 6 years. Prior to this he was Superintendent at Victoria Park Golf Club for two years and Cambridge Golf and Country Club for 1 year. His duties at Glendale began in mid-February.

Do you have any OGSA newsletters prior to 1968? If you would send them to our office, photo copies will be made and your originals will be returned to you at your request.

Thank you.

GCSAA CONFERENCE REPORT

William R. Fach, Grounds Manager, Essex Golf and Country Club.

The 54th Annual Golf Course Superintendents of America Show is now over, with expected attendance to be well over 8,000 (35 which were from Ontario) and over 252 exhibits this years show has proven to be a complete success.

The pre-conference golf tournament which started the week before was also well attended. 14 Ontario Superintendents participated in this event which was won by Roger Null from St. Louis, Mo. Although they had to fight wind, cold and rain the majority of the participants still enjoyed themselves and most of them said they couldn't wait until next years competition. Congratulations goes out to the Ontario winners, Bob Cherry, Ken Wright and Steve Miller.

The conference started the week of February 20th, 1983 with the key note speaker Vander Jagt (congressman)

remarks which settled the whole mood for the rest of the week. One of his remarks that stood out more and told the story for most of us Superintendents is that he thought Superintendents today wear many, many hats. He said, "We must be an expert in agronomy, horticulture, entomology, plant pathology and soil science and you must also be a landscape architect and construction engineer. Plus to top it all off you must be knowledgeable in business management and an expert when it comes to public and labour relations." Isn't this so true.

The education programmes that followed in the next three days provided 80 different subjects to choose from. The Thinking Superintendent session which featured 14 prominent professionals (one of these was our own Gordon Witteveen) was the session that provided the most interest.

These professionals covered a broad array of topics in the field and providing practical tips on how to better ac-

complish tasks associated with their respective subject.

On Thursday the U.S.G.A. greens section provided an excellent programme on controversial issues related to the stipmeter, topdressing of greens, course design for lower maintenance and the necessity of "green mess" for "good" turf. Jim Wyllie was one of the speakers on this programme and his topic was related to course design to cut maintenance cost. Jim talked about contouring of fairways and providing landing zones and how they can lower maintenance cost and still provide an interest for our members.

To make the whole week that much better the weather in Atlanta was sunny with temperatures between 55 - 68. We had little rain and no "ice storms".

In conclusion I would personally like to commend Jim Wyllie and Gordon Witteveen on their excellent speech presentation and I know others feel the same way I do.

34th Annual Canadian Conference and Show

March 13-16 Edmonton, Alberta

At a time when many golf courses were starting to green-up, due to an unseasonably warm winter, many golf course superintendents headed west to Edmonton to attend the winter's last turfgrass conference. This is the time of year when everybody has pretty well finished preparing themselves and are eager to get back on to the golf course. This conference provides an excellent time for one to get that last minute tip that might help to make this season that much more smoother and successful than that of last season.

The conference was well organized and well attended. The talks varied from serious, light hearted to hilarious. This proved to be a good combination as the mind will only absorb what the seat will withstand.

I don't think anyone will deny that the western hospitality was superb. The Western Hospitality Party on the Monday evening was a gala event with the Edmonton Eskimo cheerleaders leading the way. On the Thursday morning, after the conference, the Alberta Superintendents

challenged the rest of Canada to a hockey game which they lost 7 to 5. It has been rumored that if Blake McMaster had of been playing we would have won by a larger margin (inside joke). Another example of Edmonton's hospitality was further illustrated by the fact that the city donated the ice time at the Edmonton Coliseum. I wonder if Harold Ballard will do the same for us next year. I had to rush off to catch a plane, but I understand that Wayne Gretsky and the Edmonton

Oilers dropped around for a practice and signed autographs. A few Super-intendents managed to enjoy a little skiing prior to or after the conference. It would of been a shame not to have gone skiing when the mountains were so handy.

This conference is what I consider to be the lull before the storm. With memories of a conference that have not had time to fade, one must think of tomorrow and the job that lies ahead. Winter has a habit of quickly turning into summer.



The Banff Ski Bums (left to right)
Barry Endicott, Dave Keith, Bob Heron, Ken Olsvik, Gord Witteveen, Ron Heesen.

O.G.S.A./O.T.R.F. Meeting

March 13, 1983 Thornhill Golf Club

Approximately 40 people attended this early spring meeting. The OGSA directors reported that the association is moving in a positive direction and regionalization is becoming a reality. There are many regional meetings planned during the next few months and all members are welcome to attend any meeting. The Ontario Turfgrass Research Foundation reported on their financial situation and on their projects which they are working on as well as planning for the future. If anyone is having a problem that they think should be researched then they should bring it up to the attention of the directors of the OTRF. Steve Miller, CGSA vice-president and representing the Canadian Turfgrass Research Foundation, presented Keith Nesbit, president

of the OTRF, with a cheque for \$4,000.00.

After lunch Jim Myslik of the Ministry of Agriculture and Food in Brampton delivered an interesting talk on pond construction.



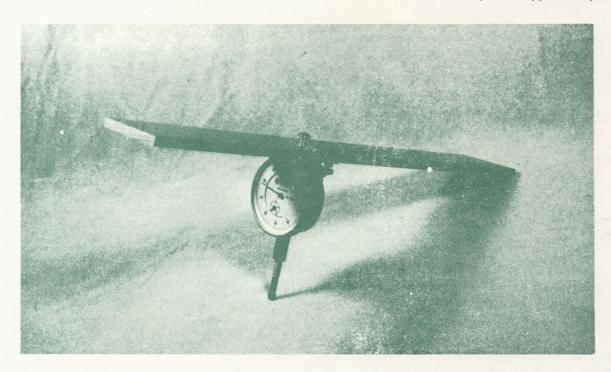
Steve Miller presenting a turfgrass research cheque of \$4,000.00 to Keith Nesbit.

Following the speaker the curlers took to the ice. The winning team was: Bob Cherry, Tom Murphy & Jack Austin. The runners-up were: Paul Scenna, Paul Dermott & Paul White. We would like to thank Bob Moote for his continuing support of this annual curling event. Without Bob, we would not have a trophy.

Reminder: Please complete and return your survey which is being carried out by the University of Guelph in conjunction with the OTRF. The turf industry in Ontario is a multi-million dollar business and one of the aims of the foundation is to present a dollar figure to the government. Research grants are given by the government to most agricultural crops, yet turfgrass receives little. Help support this project.

ACCU-GAGE

(Patent Applied For)



FEATURES OF THE ACCU-GAGE

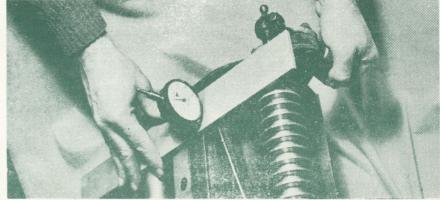
- Adjustments can be made with the gage on the mower. Simply read the gage while turning the adjusting knob.
- Measurements are made at the front edge of the bedknife regardless of bedknife wear.
- Eliminates the inaccurate "feel" method of old-type adjusting bars.
- Front and rear roller defects can be measured as well as bedknife defects.
- Fits all makes of greensmowers, both riders & walkers.
- Works on both grooved and solid rollers.
- Available read-out in .001" or mm.
- Instructions and conversion chart included.

WHAT IS IT?

Accu-gage is a precision measuring instrument for making highly accurate height-of-cut adjustments on greensmowers or other precision mowers. By incorporating a dial indicator with a unique adjusting bar apparatus, highly accurate measurements can be made at the cutting edge of the bedknife (to .001 inch), virtually eliminating operator error in both setting of the adjustment bar and the mower.

HOW IT WORKS

Accu-gage is as simple to use as old type adjusting bars.
As shown below on Toro Greensmower.



Adjustments can be made with Accu-gage on mower...simply read Accu-gage until desired setting is reached.

Genesis of a warm winter

Instead of trudging through snowdrifts, slush and northern winds, Canadians have been enjoying one of the tamest winters of the century. Two weeks ago many Calgarians spent their lunch hours suntanning on the 8th Avenue Mall in 15-C weather. And last week in Toronto, tennis players sidestepped mud puddles in High Park to play mixed doubles and Mickey Rooney, in town to open a musical, played golf. In Halifax people washed their cars on a balmy five-degree day — even though knee-deep snow still lay nearby.

Climatologists have been loath to pinpoint the cause of the exceptional weather. But many weather experts now agree that an unusually vast body of warm water in the Southern Pacific has been responsible (see map). Peruvian fishermen first noticed the current along their coastline around Christmas in 1795 and eventually dubbed it El Niño (Spanish



National Golf Foundation BULLETIN

February 1983 U.S. Leads World in Golf Courses, Golfers

NORTH PALM BEACH, FL—Did you realize that there are more golf courses in the United States — 13,013 — than in the rest of the world *combined?*

Did you know that there are more golfers in the U.S. than the rest of the world altogether?

Those are two results of a list compiled by the National Golf Foundation, which found there are an estimated 21,000 golf courses and 30 million golfers in the world.

As of Jan. 1, 1983, there were 13,013 golf courses and 17.6 million golfers in the United States. Those figures

were compiled by the NGF, with the number of golfers including "casual" players who play less than 15 rounds a year.

Listed below are figures supplied to the Foundation by 14 golf associations in foreign (non-U.S.) countries, indicating the number of courses and golfers. Among the countries whose official figures have yet to be received are Germany, Spain, Mexico and those in Africa and South America. The estimated number of golf courses and golfers in the world is, therefore, conservative.

Country		Golf Courses	Golfers		
1)	United States	13,013	17,600,000		
2)	Great Britain (& N. Ireland)	2,035	1,128,469		
3)	Australia	1,324	350,000		
4)	Canada	1,140			
5)	Japan	1,200	10,000,000		
6)	Scotland	444	600,000		
7)	New Zealand	380	120,000		
8)	S. Africa	360	60,000		
9)	Argentina	250			
10)	Sweden	162	101,000		
11)	Korea	83	(incl. 58 ranges) 160,000		
12)	Italy	68	14,859		
13)	Netherlands	36	15,000		
14)	Switzerland	28	8,000		
	TOTAL	20,523	30,157,328		

for "The Child") after Jesus. Since then, it has occurred sporadically, with the last major one in 1972. But, as the 40- to 70-m-deep surface water expanded from fewer than three million square miles last October to more than eight million square miles this month, scientists concurred that El Niño has been placing its stamp on weather from Australia to Newfoundland.

According to Amir Shabbar, a climatologist at Toronto's Canadian Climate Centre, the enormous thermal pool with temperatures as high as 32 C generates warm winds high in the atmosphere which move northward and accelerate the warming subtropical winds sweeping from the Pacific across the southern United States. Even the so-called polar jet stream, an air current that cools Canada, has been moderated by El Niño's balmy zephyrs.

Everywhere in the country, except the northeastern Arctic and Labrador, record or near-record mild temperatures and light snowfalls were set this season. Toronto, for one, chalked up its thirdwarmest winter since 1840. In the West, Albertans, Saskatchewanians and Manitobans luxuriated in temperatures that were, on average, 6 C above normal. And from the Ottawa Valley to the Rockies seasonal snowfall was down 25 per cent. Indeed, by late January only 48 cm of snow had fallen in Montreal, compared to 216 cm the year before.

While El Niño has been warming Canada, it has also been generating massive cloud systems - the source of the devastating torrential rainstorms that have drenched Peru and Ecuador since November and it could be responsible for the heavy Pacific storms and rain in California and Arizona since early January. That was not all. El Niño was also suspected to be the culprit behind the snowstorms that beset Newfoundland and New England last month. So far, El Niño has shown no signs of diminishing, and. according to Shabbar, El Niño occurrences may last for two winters. Since the last double season was two decades ago, Canadians may well have one more winter of warm, wet weather and out-ofseason golf. — CAROL BRUMAN, with Jane Mingay and Ann Walmsley in Toronto.

Credit: Macleans News Magazine March '83.

Hoekstra! Hoekstra! Read all about it!

by Thom Charters

The 1983 hockey season for members of the golf business proved to be a tremendously successful one. Two groups met on a weekly basis during the winter months to stretch out the leg muscles, shoot the breeze and wet the whistle.

Greg Aljoe organized the Tuesday afternoon scrimage in downtown St. Jacobs. This group from the Cambridge area played a lively brand of hockey that was good enough to steal one of two contests from John Paterson's team of golf professionals.

The Toronto area squad continued to meet at the Downsview arena on Monday afternoons. Strong turnouts over the nineteen week schedule led to some of the liveliest matches in recent years. This group was not as successful against the golf professionals as we were humbled in the one game we played.

The highlight of the season for some of these players came in March when the Alberta supers took on all comers at the Edmonton Coliseum. The Niagara Connection of Bill Glashan, Bob Kennedy and Cec Hoekstra were most impressive, leading the visitors to victory. The hosts are to be commended for organizing such a successful event. This was the third time that a hockey game was played in conjunction with the Canadian Conference and a fourth is guaranteed next year.



AT THE GLEN CANYON COURSE ARIZONA A LOCAL RULE PROVIDES, "THAT IF YOUR BALL LANDS WITHIN A CLUB LENGTH OF A RATTLESNAKE YOU ARE ALLOWED TO MOVE YOUR BALL"...

OGSA Meeting Region 4

March 3, 1983 Kawartha Golf Club Host: John Smith

Visitors were welcomed by Rusty Warkman, Tom Simpson and John Smith. The benefits of belonging to an association such as ours was explained and it is hoped that we will be seeing these individuals at future meetings. During and after lunch there was a bull session with full participation. Ice damage seemed to be everybodies concern at this time.

Tom Simpson

EXTRA! EXTRA!

Do you want to receive extra newsletters each issue. This can be arranged by calling Jackie Dermott at our OGSA office. (416) 622-9929.

Construction at the Oshawa Golf Club

A Brief History

The Oshawa Golf Club was granted its charter on November 21, 1906. The land which comprised the original golf course consisted of 37 acres costing \$65. an acre. In the early days, members contributed pieces of equipment in exchange for shares. R. S. McLaughlin, for instance, contributed hose and sprinklers in 1917, a year before he became the first president of General Motors of Canada.

We've come a long way since 1906 with many more members than the original 49 and we found that the majority of our greens were too small for the amount of play they have to endure. Consequently they were severely compacted and contained mostly **Poa Annua**.

Construction 1981

I had drawn up a five year plan for greens reconstruction, etc. back in 1974 but it had fallen on deaf ears. Suddenly in

the late fall of 1980 I was informed that we were going to rebuild six greens and two tees the following summer and that the architect would be Robbie Robinson.

Finally, after seven years we were going to be able to rectify some of our problems although I was wary of the number of greens to be done in one crack. The reasoning of the Board was that the members would only be inconvenienced during one season not two or three.

Bruce S. Evans was the contractor chosen to do the construction while our crew was responsible for the irrigation and trap sand. On top of this it was decided to add 25 new traps around the course, dig out the old ones and replace all of the trap sand and have the course in A-1 condition for June. Everyone likes a challenge don't they?

Greens and tees construction commenced on July 17, 1981 and was com-

by Rusty Warkman

pleted on October 10, 1981. (We lost about 21 days to wet weather.)

To those embarking on a reconstruction project, I would advise:

- Choose your architect and contractor carefully. We got our architect because he had done some work for a Board member's father-in-law. There was absolutely no consultation with anyone. Evans on the other hand was hired after a lot of inquiring.
- Keep your committee as small as possible. Ours was 12 people.
- Don't take on too much work. (I think six greens is unrealistic.) Get started as early as possible and wrap everything up by mid-September unless you are planning on sodding.
- Plan your equipment traffic routes carefully to minimize damage and inconvenience to golfers. We had to cut

two fords across the creek. Don't forget to get permission from your local Conservation Authority.

- I think one of the most important lessons learned was one Gord Witteveen told us at a symposium back in the early '70s construct decent playable temporary greens where they are required. We just cut them out of the fairway as the architect said to do very poor judgment on my part.
- With reconstruction there is a chance to improve on former mistakes and styles. Sharp mounds and ridges were smoothed out to facilitate maintenance, traps were moved in closer to the greens. (Some of the old traps were 12-15 feet away from the aprons.) Make use of good drainage. Our old greens didn't have any. Reduce the severity of slopes on greens so that players have a chance to putt with accuracy and confidence. (We had two greens that were totally unfair.) You don't have to subtantially enlarge a green to increase the number of pin placements — just recontour the green to give more useable area.

— Pay close attention to traffic areas on and around the greens to minimize compaction e.g. leave a wide enough gap between traps and provide as much access and as many exits as

possible.

— Water for your new greens is very important not only to aid in germination but on down the road. We used Rainbird pop-ups controlled by globe valves around half of the greens and Toro hydraulics in around the other half to replace the hose and keys around the old greens. (Most of the old greens had only one valve in an inconvenient location, up to 40 feet away from the apron in some cases.)

Make use of the excellent soil testing services and advice available both from the University of Guelph and in the private sector when choosing your greens mix be it 100% sand or a combination of sand, soil and peat.

— On our greens we used a 75% sand mix with equal parts of top soil and peat. The architect's specs called for the old greens mix to be used which in my opinion was not sound. I now have a brand new green with 15-20% Poa in its first year. If I had it to do over again I would definitely look for a good outside source of clean top soil. Make sure that your soil mix is well worked up and not contaminated. We have one green that got some clay in it and has had a lot of problems — thin turf,

slow recovery from disease and the hard pan areas on the green make it difficult to hold approach shots.

— When it comes time to seed don't overdo it — more is not better. It causes too much competition between plants. I feel Evans used too much seed on most of our greens — two pounds plus in most cases.

— Don't make any rash promises as to when the greens will be in play and don't be pressured into opening them too soon. (We had a board member tell everyone the greens would come along faster the earlier they were in play — and a lot of people believed him!)

Four of our six greens came out of the winter in A-1 condition (Nos. 16 and 18 were very sparse due to their late seeding) and flourished until mid-May when

disaster struck. We had an 8 o'clock shotgun for Men's Opening so we put our triplex on the new greens to get them cut in time. By that afternoon they looked as if they had been scalped royally even though the triplex was cutting higher than the walking units. Was I in the doghouse - and confused. We overseeded, fertilized, top-dressed and applied fungicide. We closed them down again as well. Nothing seemed to work. The greens were getting worse so after discussing the situation with Hugh Kirkpatrick we called in Dr. Lee Burpee to have a look at our problem. Samples were taken on several occasions and Fusarium nivale was diagnosed as the problem. I saw the spores from one sample in Dr. Burpee's office. The frustrating part was that none of the chemicals applied seemed to have any effect on the disease.



Fifteen Years Ago To-day

1968 OGSA Board of Directors

(left to right, back row) — Herbert Creed, Doug Suter, Tom Unsworth, John Arends, John Grightmire, Bernie Macdonald.

(left to right, front row) - Edward Charman, Whitey Jones, Dave Gourlay, Bob Moote, Bill Hynd.

Dave Gourlay was the president of the OGSA. Keith Nesbit, Gord Witteveen and Dave Moote were retiring directors and Bob Moote was the past president. Tom Unsworth moved from Clearstream C.C. in Oakville to St. Thomas Golf Club and Bob Heron, assistant at the Board of Trade Country Club was appointed Superintendent at Brampton G.C. Dave Baker moved to Glen Ceder G.C. and Don Creed left London for Orchard Hills Golf and Country Club in Michigan. Ian Williamson moved to Castlegar Golf Club in B.C. Tom Johnston replaced John Steel as President of the CGSA.

On January 8th there was a curling meeting at Bayview Country Club with Ed Ortlieb as host. The rink skipped by Curly Endicott and comprising of John Stoughton, Carl Wagner and Bernie Macdonald won the trophy defeating Bob Moote's rink. President Gourlay reported on a possible Greens Chairman/Super-

indentent Day and a Pro/Superintendent Day. On July 9 at Richmond Hill Golf and Country Club the first Greens Chairman/Superintendent Day was held. Tom Mascaro, president of West Point Products, was the guest speaker and George Darou was the host.

OGSA dues were \$15.00 for superintendents and \$25.00 for associates. CGSA membership dues were \$15.00 and GCSAA dues were \$50.00. Bill Forrester was made an Honorary member of the OGSA after retiring from 20 odd years at Weston Golf Club. Robbie Robinson was also presented with an Honorary membership on his retirement as Director of the Greens Section of the RCGA. James Hickman, chartered member of the OGSA recently passed away in London. The CGSA held their first Turf Research Foundation meeting at the Skyline Hotel on March 19 in Toronto.

Are you so busy you have no time to think? Even though you take work home at night, do you keep postponing important projects because you can't get to them? Do you find that work piles up whenever you're away from the job? That your subordinates aren't any more help today than they were a few years ago?

Any or all of these could be a symptom of the fact that:

(a) you don't have enough help, or

(b) you're hanging on to too much responsibility and refusing to delegate.

Many bosses are too busy for their own good — or their company's good. Everyone would be better off if they delegated a few chores to someone else and spent more time on the things which they alone can handle — and will never get done unless they do.

The wheel that squeaks gets the grease. When people are pressed for time, they tend to concentrate on things which call for action right now. Consideration of long-range problems, which may be of equal or greater importance, is postponed — sometimes indefinitely.

Being "too busy" sounds like a wonderful excuse. But it's a poor reason for not getting around to problems which are vital to a department or the future of the business. The boss who is "too busy" should unbusy himself or herself by passing along less important matters to someone else.

A big reason why many of us don't delegate more work to subordinates is that we know we can do it better ourselves. So we'd rather do it — and be



sure it's done right — than take a chance on trusting it to someone else.

That may be true — up to a certain point it makes sense. But when the boss — in order to do these jobs — must neglect others which are more important, it doesn't make sense. It's extremely shortsighted.

People can learn.

People can be trained. And they'll be much more valuable to the company in the future if we do train them.

Maybe they won't do the job too well at first. Perhaps they'll never do it quite as well as we could do it ourselves. But if there are more important things we ought to be doing, what choice is there?

The executive who doesn't delegate intelligently, who doesn't keep free to concentrate on the most important problems in the job, becomes a serious liability. No matter how well some matters are handled, vital aspects of the job are being neglected. Instead of moving up, he or she is more apt to be shunted off into some dead-end assignment.

CREDIT — BITS & PIECES MARCH'83

EFFECTS OF DIFFERENT FORMULATIONS OF GROWTH REGULATORS ON TURF

A. Darlington and C.M. Switzer

The presently available growth regulating chemicals, although useful in many situations, have certain weaknesses. None of them give long-lasting retardation and all cause some turf discolouration at higher rates. The possibility that some formulations might be more effective than others was considered and an experiment was set up to test different formulations of three chemicals.

RESEARCH PROCEDURE

Mefluidide (2 S and 1.5 S), maleic hydrazide (MH) (potassium and diethanolamine salts) and EL-500 (1 G and 50 W) were compared. Treatments were applied to triplicated 6 m² plots of mixed turf at the Cambridge Research Station on May 21, 1982. The area was mowed (4.7 cm) on May 19. This was the fourth mowing of 1982. The average height of the grass in each plot was measured on June 4, 17, July 7, 28 and August 11.

RESULTS

No discolouration was noted in any plots except those treated with the higher rate of the potassium salt of MH, which had a slight bluish caste for two weeks.

Best growth inhibition over the period of the experiment was brought about by the granular formulation of EL-500 at both rates. This was followed by the higher rates of both formulations of mefluidide. The potassium salt formula-

tions of maleic hydrazide appeared to be slightly more effective than the diethanolamine. Although the granular formulation of EL-500 was significantly better than 50 W at 1.5 kg/ha, there was considerably less difference at 2.0 kg/ha.

	Average Height of Turf (cm)						
Treatment	Rate (kg/ha)	Day 15 June 4	Day 28 June 17		Day 69 July 28	Day 83 Aug. 11	
MH (Pot. salt)	3.0	10.4	12.4	17.8	• 21.3	23.8	
MH (Pot. salt)	4.0	9.6	8.5	16.7	18.8	23.9	
MH (diethanolamine)	3.8	9.9	12.6	17.6	21.8	28.2	
EL-500 (50 W)	1.5	11.5	17.8	21.1	23.0	26.4	
EL-500 (1 G)	1.5	10.0	10.7	13.3	14.0	17.6	
EL-500 (50 W)	2.0	9.7	12.6	14.8	19.7	19.0	
EL-500 (1 G)	2.0	9.7	10.3	12.3	12.9	15.7	
Mefluidide (2 S)	0.25	8.4	8.2	17.7	18.4	23.0	
Mefluidide (1.5 S)	0.25	10.4	11.7	18.3	20.0	20.6	
Mefluidide (2 S)	0.40	7.8	7.7	15.5	17.6	21.9	
Mefluidide (1.5 S)	0.40	7.8	7.1	15.6	19.9	24.6	
Untreated		11.8	23.3	29.3	30.3	27.0	

Least significant difference 4.1 at 90% CI Credit: Turfgrass Research Annual Report OAC Univ. of Guelph 1982

FAIRWAY OVERSEEDING WITH EMBARK

J.L. Eggens and C.M. Wright

One of the main problems in overseeding fairways with high content of annual bluegrass is to decrease the competition of the established annual bluegrass to the developing overseeded grasses. Current techniques involve the use of a non-selective herbicide such as Glyphosate 4 to 7 days prior to overseeding. The disadvantage of Glyphosate is that the fairway grass is dead and is a bright yellowish-white for a 4 to 6 week period until the overseeded grasses reestablish the fairways.

Embark is a growth retardant which reduces turf shoot and root growth for a period of 6 to 8 weeks. If properly applied, the turf retains a dark green color. Embark significantly decreases the competitive ability of established grasses and allows the overseeded grasses to establish.

RESEARCH PROCEDURES

Five independent studies, started in 1978, were conducted on the effectiveness of Embark in increasing the overseeding success in swards of annual bluegrass maintained as fairway turf. In one study, a pure annual bluegrass sward was established in August 1978 and Embark treatment applied to the mature sward from 20 June to 17 Aug. 1979. Embark was applied at 0.1 to 0.3 kg per ha, 8, 6, 4 and 2 wk prior to overseeding.

RESULTS

Embark significantly increased the establishment of the overseeded grasses while maintaining a reasonably green playing surface during the establishment of the overseeded grasses (Table 1). In the untreated (control) plots overseeding success was very low but increased significantly for both the 0.1 and 0.3

kg/ha rate. The optimum time of treatment appeared to be less than 2 weeks prior to overseeding. As Embark significantly reduced annual bluegrass growth and its recuperative potential to disease and stress, there was some decrease in sward quality (Table 2). However the decrease was not greater than 35% of control for the worst plots.

When thin annual bluegrass plots were treated with Embark, some residual effect

occurred but appeared to be minimum when the plots were treated at least 8 days or more prior to overseeding. A rate of approximately 0.2 kg/ha, applied 8-14 days prior to overseeding appears to be optimum. The 0.4 kg per ha application rate was too high as significant injury occurred to the annual bluegrass sward.

On established annual bluegrass — Penncross turf Embark is **not** effective in selectively removing annual bluegrass from the sward.

Table 1. Content of overseeded grasses (% of plot) in annual bluegrass plots overseeded 17 August, 1980 in plots treated with 0.1 and 0.3 kg/ha.

Date	Manh	attan	Jamestown		Sydsport		Penncross	
treated	0.1	0.3	0.1	0.3	0.1	0.3	0.1	0.3
Control	20	20	7	7	0	0	0	0
20 June ^z	27	48	12	30	10	15	0	0
4 July	37	43	25	18	20	18	3	12
18 July	35	37	15	22	23	30	3	10
3 Aug	42	63	22	43	23	33	7	18

²Overseeded 8, 6, 4 and 2 weeks after Embark treatment.

Table 2. Plot quality (1-10, 10 best) on 3 Aug. 1979, 6, 4 and 2 wks after Embark treatment.

	Embark (kg/ha)			
Date treated	0.1	0.3		
Control	8.0	8.0		
20 June, 1979	7.0	5.7		
4 July, 1979	7.3	5.2		
18 July, 1979	6.9	6.2		

Credit: Turfgrass Research Annual Report OAC Univ. of Guelph 1982



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FOR SALE: Used Equipment — LAMBTON GOLF CLUB

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Paul White

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St. Clair Parkway Commission

(519) 862-2291

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Next Meeting St. Catharines Golf and Country Club May 5, 1983 10:00 meeting 11:30 lunc 12:30 golf lunch 5:30 equipment demonstration

7:00 dinner Jacket and Tie

Cost \$25.00 Host John Piccolo



Green is Beautiful" **Ontario Golf Superintendents Association**