GLEN OAK COUNTRY CLUB COMPARISON TESTING OF FUNGICIDES

In the spring of 1983, my assistant Joe Purpur* and I decided to try some comparison testing of other fungicides besides what we had been using to see the kind of control we would have on our fairways. Looking back on all of this now it certainly was the year to test various fungicides on our fairways.

The weather was unreal this past year as we all know. We had a cold, miserable spring. It rained every weekend in May. It set an all time record low on May 26th of 34 degrees and some low areas had frost. It set records of the wettest spring with 17.51 inches of rain from March thru May. Then of course this wet spring followed a winter that was one of the mildest in the record books and a winter where we had no frost in the ground. All of the compaction from 1982 was still with us when we started the golf season in 1983. Who can say just how much trouble this had on our year with all of the other problems piled on top? I feel that without the ground being frozen to loosen up the soil, we paid dearly in lost turf due to this compaction during the stress periods during the summer.

Now summer comes roaring in with record highs and extended lengths of high temperatures, 42 days in the 90's which made it the second hottest on record! We never had spring, it went from wet and miserable to hot and unbearable. We ended up with nine days of 90 degrees or more in June, 14 days in July with one stretch of 9 consecutive days of 90 degrees plus, 13 days in August and 6 days in September.

Well, that is the weather for the past year and now we'll get on with the fungicide trials with our fairways. These trials were carried out for the summer diseases, mainly looking at the control of Dollar Spot, Brown Patch and Pythium.

Our fairway spray program in the past has usually been with Acti-Dione TGF. The chemicals we picked to test were Bayleton 25WP, Vorlan, and Daconil 2787 (flowable). Our 1st fairway we had Vorlan and Bayleton; and 2nd fairway we had Vorlan and Acti-Dione TGF; 3rd fairway was Bayleton and Acti-Dione TGF; 4th fairway was Daconil 2787 and Acti-Dione TGF; and the 5th fairway was again a comparison of Vorlan & Bayleton. All of the tests ran the length of the fairway from tee to green. Our test spraying dates were: June 6th, July 5th, August 2nd, and August 15th. We did continue our regular program of spraying with Acti-Dione TGF on the above dates plus on June 19th, July 15th, August 1st, August 29th, and the final application September 17th.

Our application rates and quantities were:

Bayleton - No. 11/300 gals water per 4 acres equals 1 oz/M Vorlan - No. 22/300 gals water per 4 acres equals 2 oz/M Daconil 2787 - 22 oz/25 gals water per 11M equals 2 oz/M (1st two applications)

Daconil 2787 - 16.5 oz/25 gals water per 11M equals 11/20z/M (Thereafter)

Acti-Dione TGF - 1 case/300 gals water per 4 acres equals 1 oz/M

Observations:

July 5th, Vorlan had the best performance of the test fungicides. It showed excellent control over a four week period with little or no disease symptoms. Bayleton was second best showing small amounts of disease in scattered areas. Bayleton did show to be best in stress situations in the dry periods where the turf did not show signs of wilt as quickly. Daconil 2787 showed less control with heavy disease in the fourth week. Acti-

(cont'd. pg. 14)



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Take a trip back in time with this old catalog page. This page is from a 1942 George A. Davis catalog. Credit John Ebel with sharing it with us.



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MIDWEST BREEZES

Future Meeting Dates

March 5th at Nordic Hills Golf Club April 23rd at Woodridge G.C. May 14th - Joint meeting with Central Illinois at Kankakee Elks C.C. June 4th at Old Elm Golf Club July - We need a place August ? at Riverside Golf Club

September - We need a place October - We need a place

Mark your calendars now for the next NCTE which will be held December 11-12-13, 1984 at the Rosemont O'Hare Exposition Center.

Joe Williamson will be touring the British Open in July this year. We knew his golf game was good, but never that good!

Greg Thalmann, Elk Grove Park District, is looking for an assistant superintendent for the golf course. Call him at (312) 529-5822.

FOR SALE: 1971 Jac F-10, 7 gang rough unit with blitzer reels 1954 Toro Tractor, 1973 Toro Pro 81, 1970 Toro Pro 70 Two 12'' Ryan Sod Cutters.

Call: Bob Lindeman, Lake Barrington Shores G.C. (312) 382-4240 ext. 23.

Don't forget to register and attend the Midwest Regional Turf Conference which will be held at Purdue on March 12, 13 & 14th, 1984. For further registration information, call 1 (317) 494-7231.

Steve Biggers, Supt. at Woodmar C.C. is looking for an assistant. Call Steve at (219) 844-0330.

Ed Stewart is recovering from surgery and we wish him a speedy return to normal activities.

BACK ISSUES OF THE BULL SHEET STILL NEEDED

We are still looking for many back issues of "The Bull Sheet". I still need all of the following years and months. (I will put the number of the month after the year for the issues that we still need)

1977 - 7	1956 - All except Dec.
1967 - 4	1955 - 4,5,6
1962 - 2,6,12	1954 - 2,3,4,6,7,12
1961 - 2,3,4,5,8,9,10,11,1	
1960 - 6,7,8,9,10,11,12	1952 - 2,5,9
1959 - 2,3,4,5,6,7,8,9,10	1951 - 2,3,4,5,7
1957 - 3,4,6,7,8,12	1950 - All except 11 & 12
Before 1950 we	e need all of the issues
	Fred D. Opperman, Editor

Membership dues deadline to meet the membership directory is March 5th, 1984. Don't be let out of the directory and also end up not receiving "The Bull Sheet". Check with your club to see if your dues have been paid.

FOR SALE

1967 F-10 Jacobsen Tractor - no mowers - \$3200

1969 EZEE-Flow Spreader - Model 111 - \$200

1970 Jacobsen Edger Trimmer - \$50

1981 McLain Trap Edger - \$100

1975 Dedoes Fairway Aerifier, 5 drum & spiking units - \$1500 1979 Dedoes Green & Tee Aerifier, Model TCA 501 - \$1200 Call: Steve Biggers, Woodmar C.C. (219) 844-0330

Bervac S73 Snowblower, hydraulic 3 point hitch, used very little. \$950.00. Pete Mirkes, 584-6300.

WANTED: A good condition used PTO utility cart. Call Albie Staudt, 232-0624.

FOR SALE

1958 Toro Dumpbox Tractor with extra tailgate, new spare tire and miscellaneous repair parts. Ford 6 cyl. 233 cu. in., running condition. \$500.00 min.

80 used Buckner Rotary Pop-Up Sprinklers, #360 full circle. Make offer on some or all. Contact Tim Kelly, 469-2077.

James W. Timmerman, CGCS, of Orchard Lake Country Club, Bloomfield, Mich., was elected February 2, 1984 as president of the 5,500-member Golf Course Superintendents Association of America (GCSAA). He succeeds Robert W. Osterman of Easton, Conn.

Eugene D. Baston, CGCS, golf course superintendent for the Country Club of Birmingham, Alabama, was elected vice president.

Elected to the Executive Committee were James W. Taylor Sr., CGCS, superintendent of golf courses and grounds for the Kanawka County, West Virginia, Parks and Recreation Commission; John E. Laake, CGCS, of Columbus, Ohio; and Riley L. Stottern, CGCS, of Park City, Utah.





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(Comparison Testing cont'd.)

Dione TGF showed the worst control with disease symptoms scattered in the third week. Remember now that all of the test fairways went four weeks with no additional fungicide treatments.

July 19th, no disease noticed on the Vorlan and Bayleton treated fairways. The Daconil 2787 and Acti-Dione TGF test fairways did show Dollar Spot on its way in.

August 2nd, Vorlan and Bayleton showed excellent results in checking Dollar Spot. Bayleton side of the fairways had healthier looking turf during the stress periods. Vorlan showed a slight tip burn the days following the last application. Pythium was more severe on the Bayleton side of the fairways compared to the Vorlan side, but the Bayleton sides looked better due to less stress than the Vorlan treated areas. Daconil 2787 and Acti-Dione TGF both showed alot of Dollar Spot. On the fairways where Bayleton and Vorlan were used side by side the overlap area in the center of the fairway was picture perfect with no disease or stress the entire length of fairway. Yet on the Vorlan side the Pythium was controlled, but it showed stress. The Bayleton side had Pythium but showed little stress and as stated before the center of the fairway was beautiful.

August 15th, Vorlan treated areas the Poa annua is extremely stressed and turf loss is experienced. Bayleton treated areas showed excellent control of disease for Dollar Spot plus healthier looking turf. The Bayleton areas were always the last to show wilt on the golf course. Acti-Dione TGF and Daconil 2787 treated areas showed considerable Dollar Spot starting and wilting.

August 29th, Bayleton treated areas showed better quality and less disease than the other fungicides. Vorlan treated fairways were second best in turf quality.

Our overall observation on the past testing would be that Bayleton and Vorlan both showed excellent results in the control of Dollar Spot. Vorlan treated areas had less Pythium than the other chemicals. Bayleton showed excellent results in helping during the stress periods. Acti-Dione TGF and Daconil 2787 could control Dollar Spot if applied every 10-14 days if the stress wasn't too great.

*Joe Purpur is now Superintendent at Bartlett Hills Golf Course. Fred D. Opperman, CGCS



Dudley Smith & Walter Fuchs, Sr. enjoying a cool one on the equipment show floor at Vegas.



Albie Staudt, Bob Breen, Bob Johnson in background, Vickie and Julius Albaugh relaxing in the Midwest room.

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Arnold Palmer & Bob Hope in the background at the banquet in Las Vegas.



Pastor Porgeson and Jim Otto speakers at the annual Prayer Breakfast.



Dan & Jill Murray, Sandy & Dave Fisher, with their "old" boss Peter Leuzinger in the Midwest Room.

EGG-LAYING STIMULANT DEVELOPED FOR BENEFICIAL WASP

Scientists have developed a chemical mixture that stimulates **Trichogramma**, a beneficial parasitic wasp species; to lay eggs by the thousands — enough for biologically controlling many insect pests. **Trichogramma** is a genus of miniscule wasps (45 adults can be lined up head to tail in one inch) that have excellent potential as biological control agents because they parasitize eggs, thus preventing insect pests from hatching and damaging plants.

U.S.D.A. Agricultural Research Service entomologist William C. Nettles formulated the new egg-laying stimulant, which is a simple salt solution of potassium chloride and magnesium sulfate. Both of these salts are present in relatively large amounts in insect blood.

Trichogramma is present in nature but doesn't reproduce well enough to be effective for biological control, according to Nettles. His new chemical stimulant will serve as the basis for an inexpensive way to produce thousands of **Trichogramma** eggs and will allow scientists to mass rear the wasp for release. **Trichogramma** parasitizes at least 75 families of insects, including beetles, flies and moths, and will help protect vegetables, fruits, forest trees and such crops as cotton, corn and soybeans.

An artificial diet for the wasps still needs to be developed if they are to be produced successfully in large quantities. The Chinese use a natural diet composed of insect blood, egg yolks, milk and salts; however, the use of insect blood is expensive, so scientists are still looking for an inexpensive artificial alternative.



Credit: American Horticulturist 1/84

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BUDGETING & PURCHASING IMPORTANT FACTORS IN THE BUSINESS OF GOLF COURSE MGMT.

I think we can assume that the majority of American Golf Course Superintendents today share equal levels of agronomic skills. It is apparent that the number of highly qualified turf managers in this country is increasing each year with better education and research. But if we are all good turf managers than what qualifies an individual to be an outstanding golf course superintendent? I believe the answer lies in the competence of managerial and business skills that the superintendent has developed. In every part of the United States, the most sought after jobs, the best maintained golf courses, and naturally the highest salaries are all going to the superintendent that has skills above and beyond Turfgrass Management. Those business skills include: (1) Personnel Mgmt.; (2) Basic Contract Law; (3) Public Relations; (4) Labor Relations; (5) Accounting; (6) Public Speaking, (7) Business Management; (8) Budgeting; (9) Purchasing.

Budgeting and purchasing are important elements in the business of golf course management. Each year the golf course superintendent either prepares or helps to prepare his budget for maintenance and improvement of the golf course. Four basic principles in budget preparation should be followed:

1. A budget should be based on a long range plan. Using the basis of long range planning we can look at the condition of the golf course and evaluate what we have, where we want to be, and what it will take to get there.

2. A budget should be based on a stated objective. A stated objective may be written in the foreword of a budget. A stated objective should eliminate any grey areas and define the level of excellence a club desires. If you want a top conditioned golf course state that fact and prepare a budget accordingly. If you want an average golf course then state that fact and prepare a budget and prepare a budget and maintenance program with moderation. It is important to realize that on a scale of 1 to 10 we cannot operate a golf course with a playing condition of 10 with a budget rating of 6. Inversely, if a club is spending money comparable to the better clubs in their area it should show in the high quality of playing conditions.

3. A budget should fit into the guidelines of the total club fiscal picture. In most cases the golf course is only one part of the total club budget. Be aware of total income and expenses of your entire club. All departments must work together to achieve the standards desired by the membership.

4. A budget should be consistant with other comparable clubs in your area. It is difficult to compare budgets but club members do it all of the time. Open the lines of communication among your peers and discuss your golf course as a business.

Once the needs of your golf course are established and converted into a financial forcast of dollars and cents, the next step in the budgeting process is the presentation. The presentation of the budget is usually done on both the Green Committee and the Board of Directors levels. The following items are helpful in the presentation:

 Be prepared. Know your budget. If there are any questions be prepared to answer them intelligently and confidently. A well prepared budget will speak for itself.

2. Neatness counts. Be sure that your budget is typewritten and easily understood by your members. I suggest that you mail



a copy to the necessary members for their perusal prior to the date of a meeting. Use visual aids, if necessary, to explain items in the budget. This might include slides, charts, graphs, blueprints, etc.

3. **Personal appearance**. When you are presenting a budget show your members that you are a businessman in the way you dress.*

Once your budget has been approved shoot for 98% accuracy. Although the golf course superintendent is dependent upon weather conditions to establish his annual expenditures, a good superintendent can stay within 2% over or under his forecasted figures. Labor continues to be our single largest expenditure in golf course maintenance. Other large accounts include the purchase of chemicals, materials, parts, and expendable supplies.

The purchasing of the aforementioned items is an area where we, as purchasing agents, can save our golf courses thousands of dollars each year. The best example is a recent set of price quotes on chemicals which showed a price variance of as much as 30% for specific items. With golf courses spending between \$30,000 and \$100,000 annually on chemicals and supplies it is our job to get the proper materials, to do the proper job, for the best price.

The following guidelines will help in purchasing:

1. Know the materials you will need. Using past records and current research results, develop a program for the upcoming year and forecast the types and amounts of material you will need.

2. Develop a purchasing strategy relative to the club's financial position. Be aware of early order discounts and early payment discounts. Be sure that your payments for purchases fit into the cash flow of the club comfortably.

3. Shop around and compare prices. Buy only reputable products from reputable distributors. Send out a list of materials you are purchasing and let the distributors that you deal with quote you a price. If you are not currently doing this, the results will shock you! Prices for identical products may vary a great deal between different distributors.

For further help in budget preparation refer to **The Budget Process on a Golf Course** available from the Golf Course Superintendents Association of America. When purchasing items such as chemicals, fertilizers, paint, repair parts, etc. shop around and spend your clubs' money as if it were your own. Add to your foundation of agronomic skills and manage your golf course like a business - it is one.

Bruce R. Williams, Bob O'Link G.C.

MUCH NAMES NGF EXECUTIVE DIRECTOR

NORTH PALM BEACH, Fla.--Sheridan (Joe) Much has been named executive director of the National Golf Foundation by David Hueber, the NGF's new president.

Much, 60, joined the Foundation staff in 1968 after a 20-year newspaper career. He traveled the West Coast as a field representative and served as Western Director before moving to headquarters in 1982 as director of field services. He was named acting executive director in July, 1983.

National Golf Foundation



FLOWERING SHRUBS CAN BE FORCED INDOORS NOW

This year spring can come early to your home. How? Just snip some branches from your flowering shrubs and force them into bloom. By now many shrubs have flower buds that are formed and ready to bloom. The recent cold weather was sufficient to break dormancy and all they require to burst open is warmth and moisture.

This procedure is quite simple. Anyone, even apartment dwellers, can succeed with this project. Start by selecting branches loaded with flower buds. You can identify the flower buds because they are more plump and more round than leaf buds. When cutting, select branches that have curves or bends that will create interesting blooming arrangements.

Since the branches will be in water several weeks, many of the clean cut ends will have a tendency to heal or form callus. This is not desirable because it restricts the water uptake. To prevent this healing, thoroughly pound with a hammer and shred the cut ends of the branches.

After the ends are prepared, submerge the bundle of branches overnight in a deep pail or tub of water, or wrap them in a damp cloth and put them in a plastic bag for a few days. This moistening and soaking loosens the bud scales and helps them to readily fall away as the flower expands.

After moistening operation is completed, stand the branches in a pail of water. A temperature of 60 degrees to 70 degrees F. is best for the developing flowers. Although the branches will force at higher temperatures, the color, size, and keeping quality of the blooms will be reduced. For this reason, it is also best to keep the branches out of direct sun.

Most branches will be well on their way to full bloom in two weeks or sooner. They will stay attractive for about one week. So, if you cut a few branches each week, you can have a succession of fresh flowers the rest of the winter.

Some of the most popular shrubs to force are forsythia and flowering quince. Other good plants for forcing are flowering crab, flowering almond, and spirea ... especially the double flowered spirea. Magnolia forces easily, too.

Although white flowering dogwood can be forced, it opens slowly and the bracts never develop as fully as outside. Lilac, because it is a complex compound flower, is also a challenge to force.

Finally, don't overlook trees when collecting branches for forcing. Red maple has an attractive but seldom noticed flower. Oak branches produce very interesting tiny leaves that change color as they unfold. And don't forget the pussy-willows. They are almost the trademark of spring.

> James A. Fizzell, Sr. Ext. Adviser Horticulture

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March, the month in which a new Spring is born, Bringing blessed delights, in various form.

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To welcome a new Season back from Winter vacation. Yes, We're all already, anxious to go,

Let's get rid of that Ice and that Snow.

Bring on that Springtime in high gear,

We're eager and waiting, it's that time of year.

Kenneth R. Zanzig



-20-