

SEPTEMBER, 1968

VOL. 22. NO. 4.



# The Bull Sheet

*Official Bulletin*

*Midwest Association of Golf Course Superintendents*



**M.A.G.C.S. ANNUAL FALL  
GOLF TOURNAMENT  
SEPTEMBER 19 AT  
ROLLING GREEN C. C.**

**Host Superintendent  
Dennis Straus**

#### ARTICLES

1. What's in the Bag.
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THE BULL SHEET, official publication of THE MIDWEST ASSOCIATION OF GOLF COURSE SUPERINTENDENTS.

DICK TREVARTHAN, Editor  
122 Evergreen Drive  
Frankfort, Illinois 60423

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### *The President's Message*

My wife and I were saddened when told of the tragic death of Gerald Dearie Jr. We will all miss Jerry. It just doesn't seem possible that this has happened. We send our heartfelt sympathy to Berry Dearie and their children and to Mr. and Mrs. Gerald Dearie Sr.

I am sorry I was unable to attend the joint meeting with Wisconsin August 12th at the Tuck-A-Way Country Club. I was meeting with the ABC Network that day and also the installation of underground cable is being done in preparation for the National Amateur Golf Tournament. I am sure everyone enjoyed themselves at Tuck-A-Way. I'm very anxious to hear about it. I called Lester White in Wisconsin and told him I could not attend the meeting. I wanted to attend but just couldn't.

Congratulations to Oscar Miles for the tremendous job he did in planning, conditioning and maintaining Olympia Fields Country Club for the 65th Western Open Golf Championship Tournament. We watched it on television here in Columbus, Ohio and everything looked just great.

We will have our meeting and annual golf tournament September 16th at Edgewater Golf Club. Mr. Chester Randby will be our host Superintendent. Our annual get together with our managers will be held at Lincolnshire Country Club the latter part of September. Mr. Mel Odle will be our host. I am sorry that I do not know the exact date on this but I am sure we will all be told the date.

Labor Day weekend will be over and we will be busy with our fall work. I hope the weather man will be in our favor for any rebuilding of tees and greens that we might want to do. We can look back over our accomplishments and begin planning for next year, making improvements where they are necessary.

I sincerely hope I will see all of you at the Edgewater Club for our September meeting.

Walter H. Fuchs, President



Your Educational committee for 1968, is planning the biggest fall clinic yet to date. Plan now to attend. L. to R. Ed Wollenberg, Howard Baerwald, Julius Albaugh, Chairman Ted Sokolis, and Ray Gerber.

**HERE IS YOUR CHANCE TO GAIN FAME, BUT VERY LITTLE FORTUNE. WRITE AN ARTICLE FOR THE "BULL SHEET".**

---

Coming in the October issue of the "BULL SHEET" Stan Frederiksen's article "ARE YOU UP TO DATE".

## WHAT'S IN THE BAG?

By Robert T. Miller

Industrial & Biochemicals Department  
E. I. du Pont de Nemours & Company  
Wilmington, Delaware

What's in that bag of fertilizer you purchase? Obviously, when you buy fertilizer, one of the first things you check is the printed analysis to determine the amount of nitrogen, phosphorous, and potash it contains.

Once line requirements have been met, the production of good turf depends on the application of the proper quantities of those ingredients. Of the three, nitrogen is the primary growth-producing element, and a continuous and sufficient supply is needed to produce season-long turf growth.

With any nitrogen carrier the best results will be obtained if you know the breakdown mechanism, the amount of area to be nourished, the recommended rate per acre, and the frequency of application.

All forms of nitrogen, if used properly, will produce excellent turf and will maintain active and uniform growth over the entire growing season. Where they differ is in their availability to the grass and their lasting qualities. Some nitrogens are quickly available, but do not last in the soil. Others may not provide a quick surge of growth, but they continue to release nitrogen uniformly over a long period.

For your turf program you have a choice of three types of nitrogen—solubles, natural organics and ureaform, which are identifiable, generally, by the rate at which the nitrogen is converted to the nitrate (NO<sub>3</sub>) form. They differ in the frequency of applications and in the amount per application required for a well-managed program.

The soluble nitrogens are quickly available because they are readily soluble in water, and all the nitrogen is converted to a form available to the plant in a matter of days. The principal products in this group are ammonium nitrate, ammonium sulfate, and urea.

The soluble form of nitrogen is the least costly per pound, but its feeding period is relatively short and care must be taken in application or discoloration or burning of foliage may result. Rapid turf growth quickly follows application of the solubles, and, for best results, they must be applied frequently in small amounts. As a result, their cost in terms of labor and time may be excessive.

Seed meals, sludge and tankage are forms of the natural organic type of nitrogen. They do not injure plants at time of application and are longer-lasting than the solubles. However, their breakdown may be erratic because of a dependence on soil temperature and moisture. Release of nitrogen may be slow during a cool, wet spring, but more rapid as soil temperatures rise.

Because fewer applications of the organics are necessary, labor costs are lower than with solubles. However, they usually are low in nutrient value and larger quantities are needed in each application, and they are more expensive per pound of nitrogen than the solubles.

Ureaform nitrogen is a combination of quickly-available and long-feeding nitrogens. It is more expensive than the solubles, but about equal in cost, or less expensive, than the organics. Ureaform outlasts other sources of nitrogen.

In terms of labor ureaform is the cheapest nitrogen source because it can be applied at relatively high rates without discoloring or burning the plant. The nitrogen becomes available due to solubility and soil organism activity with no excessive breakdown.

Unlike other forms of nitrogen, all the ureaform nitrogen applied in a single year will not become available to the plant in that year. A residual level is built up, and once it has been reached the efficiency of recovery is as good, or probably better, than from similar annual amounts of soluble materials.

An interesting study was conducted by Dr. Roy Blaser at Virginia Polytechnic Institute. In an experiment on bent grass he applied nine pounds of each of the three types of nitrogen per 1000 square feet. With solubles, 13 applications were made, for a total of 27 pounds of 33-1/3 per cent product. The organics required seven applications and 164 pounds of 5.5 per cent product. He applied the ureaform twice and used 24 pounds of 38 per cent product. Results were excellent in each case, but the number of applications and the amount per application varied greatly.

In summary, all nitrogen products will produce excellent turf. They differ, as indicated, in the timing of their availability to the plant and in the interval between applications. The superintendent using any of these materials should adjust his fertilization program to the product he is using.

All forms of nitrogen are aids in good turf management programs. They are not intended to take the man out of management.

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## TEEN-AGE ADVICE

We hear the Teen-agers complain: "What can we do? Where can we go?" The answer is "Go Home." Hang the storm windows or screens, paint the woodwork, rake the leaves, mow the lawn, shovel the walk, wash the car, scrub the floors.

Help the Minister, Rabbi, or the priest, the Red Cross, the St. Vincent de Paul Society. Visit the sick, the poor. Study your lessons. And when you're through, if you are not too tired, read a book. Your parents **do not owe you entertainment**. Your city doesn't owe you a recreation center. The world doesn't owe you a living. You owe it to your time and energy and talent, so that no one will be at war or in poverty or sick or lonely again. You're supposed to be mature enough to accept some of the responsibilities your parents have carried for years. They have nursed, protected, excused and tolerated you.

They have denied themselves comforts so that you could have luxuries. This they have done gladly, for you are their proudest treasures.

In Heaven's Name, **GROW UP AND GO HOME.**  
(Bill Smart — Hudson Valley GCSA)

**HATS OFF TO THE IOWA GOLF COURSE SUPERINTENDENTS ASSOCIATION NEWS** letter called the "Reporter". The Reporter with its August issue is six months old. May you continue to receive the support from your superintendents as you do now. Looks great.

WHAT IS A CROSS BETWEEN A HIPPIE AND A YIPPIE?

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## HOLMES' CORNER

by James L. Holmes  
 USGA Green Section  
 Mid-Western Agronomist

The hot, humid spell finally broke before Pythium approached very far north. But, brown patch simply blossomed out everywhere. Those who were regularly using a mercury-containing fungicide had far less incidence of this disease than those who were not applying same. Without a doubt, the fungicide which contains inorganic mercury chlorides is significantly superior for the control of this malady.

Dollar spot is active on bent-*Poa annua* fairways and tee turf. No doubt it will continue to be active for the remainder of the season. Cadmium containing compounds, a phenyl mercuric acetate and iron sulfate mixture and Actidione-thiram are being applied for controls. PMA plus iron is especially effective if brown patch also is a factor. Cadmium containing fungicides seem to give control for the longest period of time against dollar spot.

It certainly was a pleasure visiting with the Midwest and Wisconsin group on August 12 and playing the Tuckaway Country Club. Positively fantastic progress has been made toward "bringing the course in" by Les White since this spring. The course will be in great shape for the 1968 Italian Open. I wonder how an Irishman can qualify?

While making calls in the Twin Cities area earlier this month it was a pleasure to observe that the superintendents have their courses in superb condition. Slit trenches in fairways and greens were evident on all courses and seem to be working well. Milt Wiley and Ted Mattson, Hazeltine National Golf Club, are making great strides toward conditioning the grounds in anticipation of the 1970 National Championship. It was a shame that the local heroes lost to the Detroit Tigers the Sunday Carl Anderson took me to the ball game. You should consult on some of those off-season trades, Carl.

I am trying to make somewhat of a study as to rounds of women's golf vs. rounds of men's golf played at private clubs. So far I have arrived at the conclusion that women are out-playing men by 2 to 1. There must be some kind of a story here.

Dear Mr. Dearie:

I was very surprised and sad that your son Gerald, passed away at such a young age.

He died in nature on his golf course as a soldier in the battle field. You have lost his pleasant personality as well as his wife's husband and his children's father. America has lost one of the few top, modern golf course Superintendents, not only in the Chicago area, but I think, in America.

I have lost one of my best friends on the American Continent whom I will never forget in my life.

Please, accept my deepest sympathy.

Sincerely yours  
 Vaclan Zolman

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## The Search For Controlled Nitrogen Release

If you can control nitrogen release, hopefully you can control:

- A. Grass burn from high as well as low nitrogen rates.
- B. Leaching which prevents nitrogen efficiency.
- C. Labor costs in application and maintenance.
- D. Rate of growth for more uniform results.
- E. Flexibility in scheduling fertilizer application.
- F. Wear on machinery.

Organic materials offer safety but result in mineral buildups that cause rapid release during hot periods and little or no release in cold periods. They are hard to handle and are not usually complete mixes.

The first major breakthrough came with the aldehydes and combinations of ion exchange resin fertilizer. Users experienced good steady release but little or no release in cool weather. Microorganisms played a role in the release of N. as well as temperature. Many aldehyde combinations were tried, e.g., urea formaldehyde. The urea-formaldehyde combination worked well but became very expensive. Over one-third of the Nitrogen was rendered insoluble and very slowly available over many years to the grass plant. Many combinations with so-called "hot" fertilizers were tried which resulted in too fast a release or too slow a release. Still they offered better results that had previously been obtained with other products.

To improve upon organics and urea aldehydes, slowly-soluble materials were developed. These products worked but had great variations. To eliminate the variation, coatings were developed. These coatings worked well until a hole developed. Then a rapid release resulted. The idea of mixing coated particles with small non-coated particles resulted in time capsule release. Unfortunately, the coatings broke down.

After the coatings and aldehydes came the idea of mixing slowly soluble compounds with urea. These then depended upon hydrolysis for rate of release. The material I.B.D.U. (Isobutylidene Diurea) became very popular. Its use was expanded from rice to tree

crops to grass and then vegetables, etc. With this material the requirements for a slow controlled release nitrogen were found. Cost then became a factor. While cheaper than organics and urea-forms and several combinations, it still was more expensive than urea. With cheap and adequate labor, urea still was king.

In an effort to come close to the urea cost, sulphur coated urea was tried. Here urea was coated with sulphur in varying degrees. This worked well but could only be used in areas where the excessive sulphur could be tolerated. Cracks developed in the sulphur and urea leaches out which results in a loss of control.

At present the golf course superintendent uses several combinations of all the sources mentioned. Each through experimentation has settled upon the material that best fits his labor, finances and master plan. Each still searches for the best combination, e.g., organics, urea, urea formaldehydes, I.B.D.U., coated materials and many combinations of the above.

The search still goes on.

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1. Keep each worker guessing about how to get along in your organization.
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3. Let people find out for themselves about changes that will effect them. Then make them take it and like it. If they squawk, tell them the board of directors ordered it.
4. Do all the thinking yourself. Let them know that they are being paid to work not to think. When a worker turns in a good idea, belittle it or tell him you thought of it before, then use it as your own.
5. Let each worker know how unimportant he is. You can get along without him. You did once and you can do it again. Never let him forget it. Treat your people as your servants. The war is over, you're the boss. Your word is law.
6. Get tough. Tell, don't ask. Remain aloof. You can lead a man to a job but you gotta make him work.

Bud Hall C.C.M., Pinehurst CG

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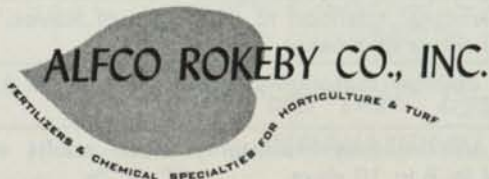
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# TREE AND SHRUB INSECTS

by Stan Rachesky  
Entomologist, University of Illinois

Regardless of their size or cost, trees and shrubs used as ornamentals are highly prized by their owners for their shade or beauty. Very important are insect destroying pests. Insects may damage trees and shrubs in many ways. Caterpillars stripping foliage from twigs or branches, aphids and scale insects sucking

plant juices from new growth causing them to wilt or die, borers invading the bark and wood, and insects that carry fungus as in dutch elm disease. The insecticides listed below are readily available and effective:

Insects	Insecticide	Suggestions*
Aphids	Diazinon Malathion	Spray foliage thoroughly with force. Repeat as needed.
Bagworms	Carbaryl Diazinon Malathion	Spray foliage thoroughly. Apply June 15. Later sprays are less effective.
Borers	DDT	Spray trunk monthly in summer, beginning about May 15. Do not spray foliage. Wrap trunks of newly set trees with heavy paper for first two years or until trees are growing vigorously.
Catalpa sphinx	Carbaryl	Spray foliage when feeding or worms are first noticed.
Eastern tent caterpillars	Same as for Catalpa sphinx	Spray when nests are first noticed.
Elm leaf beetle	Same as for Catalpa sphinx	Spray as soon as damage is noticed.
European pine shoot moths and Nantucket pine moth	DDT	Spray ends of branches thoroughly in mid-April and late June.
Fall webworms	Carbaryl	Spray when first webs appear; clip off and destroy infested branches or burn out webs.
Galls		
Elm cockscomb Hickory	Lindane	Spray foliage thoroughly when buds unfold.
Hackberry blister	Diazinon Malathion	Spray foliage thoroughly in late May. Kills psyllids in galls.
Cooley spruce Eastern spruce	Either spray above	Apply in late September or October or early spring just before buds swell.
Green-striped mapleworms	Same as for Catalpa sphinx	Spray as soon as damage is noticed.
Leaf miners Boxwood Hawthorn Oak	Diazinon Malathion	Spray foliage thoroughly when mines first appear. Repeat treatment in 10 to 12 days.
Mealybugs	Malathion	Spray foliage thoroughly and with force. Repeat in two weeks.
Mimosa webworms	Carbaryl Malathion	Spray foliage thoroughly when first nests appear (June, July). A repeat treatment may be needed.
Mites	Aramite chlorobenzilate  dicofol	Pay particular attention to underside of leaves. One treatment is effective for several weeks.  Pay particular attention to underside of leaves. Apply 2 or 3 times at weekly intervals.
Oak kermes	Malathion	Spray foliage thoroughly about July 1 to kill the crawlers.
Periodical cicadas	Same as for fall webworm	Spray all branches thoroughly when adults appear. Repeat in 7 to 10 days.
Sawflies	Same as for fall webworm	Spray as soon as worms or damage is evident.



Scales Cottony maple European elm	Malathion	Spray foliage thoroughly in late May for pine needle and sweet gum scale; in early June for scurfy, oyster-shell, euonymous, Fletcher, and European elm scales; and again in early August for oystershell scale; in early July for cottony maple, Juniper, and dogwood scales; and between July 10 and 15 for spruce bud scale.
Oystershell Pine needle Scurfy Spruce bud Sweet gum		
Putnam San Jose Tuliptree	dormant oil diluted according to label	Apply when plants are still dormant in late winter. Do not use on evergreens. For tuliptree scale, a malathion spray in late September is also effective.
Spring cankerworms	Same as for catalpa sphinx	When leaf buds open in spring, while worms are still small.
Spruce budworms	Same as for fall webworm	Spray when caterpillars are noticed.
Sycamore lace bugs	Carbaryl Malathion	Spray when nymphs appear, usually in late May.
Thrips	Same as for aphids	Mainly on privet. Spray foliage thoroughly. Do not use DDT on privet.
Yellow-necked caterpillars	Same as for catalpa sphinx	Spray foliage when worms are small.
Zimmerman pine moths	DDT	Spray foliage thoroughly in early August.

\* Treatment dates are listed for central Illinois. In southern Illinois apply 2 weeks earlier and in northern Illinois 2 weeks later.

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## THE BALANCE OF NATURE

HEALTHY, BALANCED LIVE SOILS GROWING STRONG, HEALTHY PLANTS BALANCED WITH NATURAL PREDATORS HAVE RESISTANCE TO DISEASES AND INSECTS . . .

Our firm belief that if the conditions are favorable and your soil is of good structure and well balanced so that it can grow a strong live plant that this plant will have resistance to insect and diseases (we did not say immune to) has been greatly reaffirmed again this past season. Today we are more convinced that there are many things involved in a good balance of Nature. We are the first to admit our program also needs decent weather or growing conditions. We are also convinced if we have soil that is of good structure (soil that is loose and absorbs water well and holds water well) will support and grow a plant better in adverse weather conditions. We are also convinced that this type of soil will grow larger and better roots than hard compact soil this also will support a plant better in adverse weather conditions.

When we speak of a balanced soil, we are not only thinking of a balance of Minerals such as Nitrogen, Phosphorous and Potash. These are included, of course, but a balanced soil goes a lot further than that. In fact, we perhaps do not know what the best balance of, or, in a soil really is. Until recent years all but a very few soil tests considered nothing but pH, Phosphorous and Potash. Even when we have the pH reading, we still don't know if that part of soil is in or out of balance. The pH reading could be in the safe margin and we could still be either low or high in either Magnesium or Calcium. It is a known fact we cannot grow good healthy plants when either one of these is seriously deficient. It is quite possible that the pH could be within range 6.8 and yet we could be seriously deficient in Magnesium. We could be low in pH, and bring it up by applying high Calcium lime and suppose we were quite deficient in Magnesium, would this bring the soil into balance? Would this solve our problem? We could even be high in Calcium and actually compound our problem by adding a high Calcium lime.

Then there is also the balance of the Trace Elements. Many of these deficiencies can also cause a lot of problems in our soil, perhaps not only in the actual deficiency itself but by the deficiency of some of these we tie up or lock up some of the other elements that do directly effect the growth and health of the plant. There is so much to be said about this that we will not really get into it at this time.

There is another very important factor or element in the soil that we dealt with to quite a length in the last Micro-News, April-May issue, the organic matter in the soil. Some farmers seemingly are not even conscious of the fact that this element plays an important part in making a good soil and growing a good crop both in quality and quantity. Many farmers do not know how or where or why to test for this element. Organic matter or humus are not for sale as such, these are or are not in your soil due largely to management. This is one of the qualities that is very essential in the soil to grow a crop of good quality and quantity.

As far as I am concerned, if your soil test does not contain the information of most above mentioned elements then I would consider it a waste of time to gather the soil samples. We also find it very

helpful to know the exchangeable basis or saturation of the soils capacity.

We would not want to miss mentioning one of the most important factors in good soil which is so very dependent on so many of the previous mentioned items and at the same time this in return is responsible for making many of the previous mentioned items available to the plant.

What we are talking about now is this mysterious life in the soil. The best test we have at the present time for this life is observation, here again management has so much to do with the presence of, activity or absence of this life in our soil.

Then there is also the life above the soil. I am now again speaking of something that seems to be forgotten and ignored by so much of agriculture today. I am talking about the parasitic and predatory life which will help us to keep the damaging insects under control. And may I ask how in the world do we expect to keep this life and, or the life in the soil healthy and on the job if we constantly douse it with poison.

The above things are what we refer to as the balance of Nature. Nature has provided for us ways and means of keeping things under control or in balance if we permit it to take place.

Micro News, June-July, 1968 — Edition 5.

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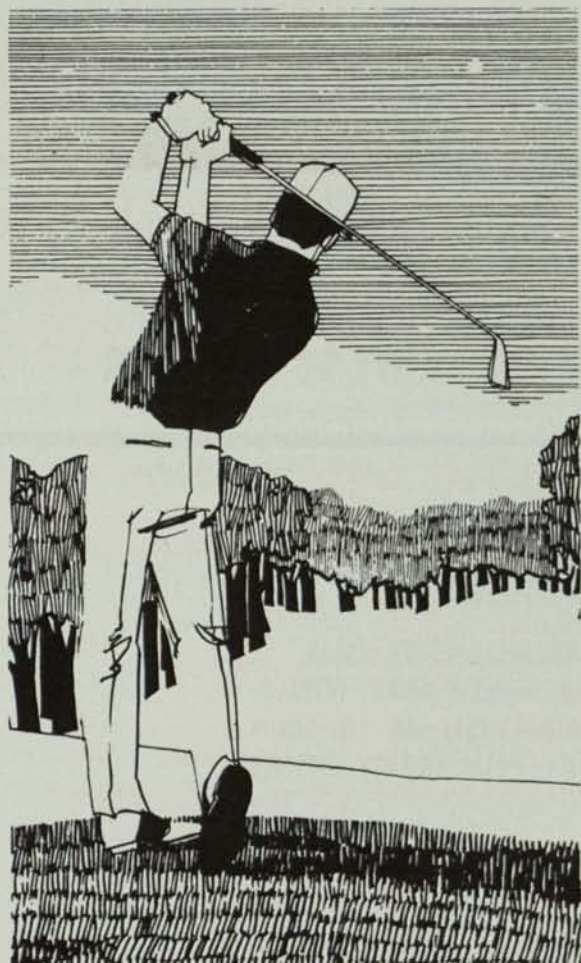
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### WHAT IS A "PROFESSION"?

"This is no easy answer, because with the proliferation of specialized knowledge, the number of highly skilled and learned human occupations has increased so much in recent years that the former simple listing of the professions as the clergy, law, medicine, the ministry, and a few others has become obsolete.

There are, however, several hallmarks of a profession. One is its possession of an organized body of special knowledge which cannot be acquired except by long and difficult study. A layman seeks the services of a professional man—a lawyer or doctor, for example—because of what he knows that the ordinary layman cannot know: The right of its citizens under the law or the effect of medicine upon disease. Another hallmark is the requirement of a recognized standard of competence to practice. Sometimes this may be schooling alone; often it includes examination and licensing or certification by the state or by an association of the profession involved. Another professional characteristic is independence. The professional man does not have to work as part of an organization. He carries his assets primarily in his head and can practice anywhere that his services are in demand, either as an independent practitioner or as a hired part of an organization. Finally, the professional man undertakes a responsibility to use his talents for the public welfare. The doctor vows to assist whenever his aid is needed in an emergency. If he makes a discovery, instead of hiding it, he shares it with his fellow and with the world by reporting it in a medical journal or elsewhere.

... Although the clergy are usually closely organized into associations, they do not strike as a means of protesting and fixing their compensation, but instead negotiate individually. Almost always codes of

practice prevent professional men from advertising their merits directly; they must become known by their good works and by actions which might be called public relations."

From *The Nature of Public Relations* by John E. Marston, page 90-91. **Rocky Mountain G.C.S.A.**

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### INFORMATION PLEASE

by Alexander M. Radko  
Eastern Director, USGA Green Section

May we help? How often has this been said in sincerity, no matter what your station in life or vocation? Golfers are no exception, and they too are willing to do most anything that will help keep the course in fine playing condition. After all this is their course, their pride and joy, and they truly get enjoyment from guest praise, just as you and I do, who are concerned with turfgrass management.

Last month while visiting clubs in the Cleveland area, discussions with the superintendent and green committee led to the observation that long tees are seldom used. They are seldom used because members prefer to gain as much advantage as possible when playing a course. However, if they knew that this advantage leads to turf problems, then they would react differently. Most would readily say, "If it's good for the course, it's O.K. with me!" We who know a little about turfgrasses know that it must be used to stay healthy. We all have observed mounded areas, slopes, terraces, and other such areas on greens that are not cupped; here bentgrasses become very thatchy and very much a management problem. Tees react the same way when not used, and they become susceptible to all problems concerned with thatch. This past winter where **desiccation** occurred, thatched areas were harder hit than areas with little thatch. Thatch causes grass roots to become shallow and unthrifty — in every day terms, JUST PLAIN LAZY — they grow laterally through the heavy thatch, they

don't work to penetrate the soil . . . why should they when they can grow so easily in thatch.

During adversity weaknesses are quick to show, and one of the weaknesses is caused by not using some portions of the turf and overusing others. Therefore why not spread the wear around. Tell your members why they should be using all the turf, and I'm sure you will be surprised at their cooperative response. They will do it if they know why, so provide this information, spread the turf gospel. You know it, they don't, so it's up to you to educate your playing members.

Northern Ohio Turfgrass News

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