

[1979]

# NORTHERN MICHIGAN TURF MANAGERS ASSOCIATION

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SEP 25 REC'D

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TUESDAY, OCTOBER 2nd, 1979  
GREEN HILLS GOLF CLUB  
PINCONNING MICHIGAN

The next meeting of our Association will be as shown above with the same program of golf, dinner and our business meeting. For those of you that are not familiar with the location, Pinconning is north of Bay City on Michigan 13. Anyone coming either north or south that can use Interstate-75 should get off at the Pinconning Exit, go east to M-13 and turn south on M-13 at the light, then 4 3/4 miles south to Green Hills on the west side of the road.

Tom and Dan Courtemanche have extended to you an invitation for you to play their fine golf course. Lunch is available, no starting times are necessary and golf carts are available, so ----- bring along your best game and enjoy yourselves.

As usual, we must know the number that will be there for dinner so please fill in the enclosed postcard and get it back into the mail. Dinner will be as close to 6:15 P.M. as possible depending upon some getting off the golf course and this will be our target time so pace yourself to be available. If you like "Happy Hour", please allow time for it in your calculations.

Our speaker for the evening will be Dr. Jos. M. Vargas, one of the country's outstanding authorities on turfgrass disease. It is always interesting this time of the year to hear "Joe" and his latest info because we are not far away from the time when we do what we think is correct to prevent winter disease problems. His guidance over the years has been very beneficial and helpful to our members. We are indeed fortunate to have someone like him to call upon when in trouble.

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Election of three Directors was held at our meeting at Frankfort on Sept. 12th. Fred Bond, Dave Longfield and Leon Powell were elected to serve for a term of three years. At this meeting at Pinconning, the Board will elect the officers for the year of 1980. Remember our fiscal year starts Nov. 1st and ends October 31st.

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October 20th, is the date of the big social party for the gals. It will be held at Hidden Valley, Gaylord. Further details will be forthcoming in another letter however mark your calendar now gals, so the old man can't change your plans to attend.

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New membership cards will be yours when you pay your 1980 dues. The Board has approved something that you will be very proud to show to anyone plus it will make an excellent display on your office wall. If you have not paid 1979 dues, this new card will not be available to you unless you pay both years. Get on the band wagon.





## OLDER FORMS OF NITROGEN FERTILIZER FOR TURFGRASSES

James M. Latham, Acting Manager  
Product Utilization  
Milwaukee Metropolitan Sewerage District

Just How Old Is Old? This title is a little misleading, since some so-called "new" nitrogen sources have been around for about 30 years. Nevertheless, this will be limited to pre-World War II materials.

We normally think that man, in his infinite wisdom, created or found use for existing forms of this vital nutrient. No so, for if one goes back far enough he finds that the origin of all nitrogen forms was and is in fundamental rocks. Even today, these rocks contain almost 98% of the earth's total nitrogen. The air contains a little over 1%. The total of all the terrestrial humus, sea-bottom organic compounds, and all living things amount to a negligible quantity.

True, nitrogen sources as we know them are a part of a vast recycling job. From atmospheric precipitation, we receive 4 to 8 lbs. of N per acre per year and soil organisms provide about 3 to 6 lbs. Industrial air emissions are also contributory on a local basis.

In man's time, the earliest nutrient nitrogen sources came from plant and animal residues, a scavenger business. Manures from all sources have been used since intentional agriculture began. Their continued longevity is due not only to their nutrient supplying capabilities, but also to contributions of organic matter and non-nitrogen nutrients.

Surprisingly, one of the first inorganic N sources was reported in 1733 by Jethro Tull. It is now considered new. He realized the nutritive value of saltpetre (potassium nitrate). He also noted that such soluble salts could damage plants and all excesses should be avoided. He wrote, "Too much nitre corrodes a plant; too much water drowns it; too much heat burns it; but too much earth a plant can never have unless it be therein buried."

During the 18th and early 19th centuries an inorganic vs organic controversy raged among agriculturists. Justus von Liebig, in 1840, put things in order through his experiments. He said, "The primary source whence man and animals derive means of growth and support is the vegetable kingdom...Plants, on the other hand, find new nutritive material only in organic substances."

Chilean saltpetre (sodium nitrate) shipments began in 1830 and became very popular in Europe. This is probable due to its alkaline reaction in soils. Some is still being used on that account and because of its nitrate form in N.

Guano, bird manure retrieved from low rainfall islands, has been used since the 12th century. About 1830 to 1840 Peruvian guano shipments to the U.S., England and Germany began. It became widely used as a fertilizer and later as the organic base or conditioner for mixed fertilizers. It was so popular in the southern U.S. that even in the early 1950's, mixers

there had to add fish oil before farmers would believe they were fertilizers. "The nose knows."

With oilseed processing, came seed meals of cotton, castorbean, etc. Now, all except castor are used as animal feeds.

Animal byproducts became available with the advent of food processing, etc. Dried blood, process tankage and the like have also largely passed from the fertilizer industry into feeds, because of the higher financial return.

Today, we still use many byproducts as N sources, but the majority of this nutrient is from synthetics. The cyanamide process from Italy started it all in 1869, by fixing atmospheric nitrogen. The real breakthrough, however, came in 1913, with the development of the Haber-Bosch methods of synthesizing ammonium using atmospheric nitrogen. From this process, most of the N fertilizers we know today originate:

Beginning with ammonia  
add oxygen to produce nitric acid  
add more ammonia, produce ammonium nitrate  
with calcium carbonate, produce calcium nitrate  
add carbon dioxide and produce urea  
with formaldehyde, produce ureaform

Almost add infinitum.

Byproduct sources still continue. In code production from coal, gases are evolved from which ammonium sulfate is produced.

Nightsoil and its attendant problems is now used only in the orient. Past ideas and recent laws in Canada and the U.S. have made processed sewage sludge a viable source of N in agriculture. In the 1920's Milwaukee, Chicago and Houston developed activated sludge processes to produce 5 to 6% heat dried fertilizer materials. Milwaukee chose to identify and market its material, while the other cities chose to market sludge as a bulk commodity. Numerous smaller towns have done this on a local basis.

Many of these materials are of low analysis and require more handling than newer materials. They do have several redeeming characteristics that continue their popularity:

1. Of all soluble nitrogen sources, the one that produces the best turf quality is ammonium sulfate (21% N). It has consistently produced excellent quality turf, probably because of its sulfur content (about 27%). It can burn the turf because it is a salt with a high salt index. Its high solubility, however, makes it easily watered in. Sulfate is still widely used on alkaline soils in the west.

2. Of the many natural organics, Milorganite is one of the few survivors. As with others in this category and some synthetics, nitrogen release is through microbial activity in the soil. Nitrification is thus controlled by temperature, moisture and particle size. The first two factors also control plant growth to a great degree. Sludges contain a large number of useful and non-useful constituents. Plant toxicity has not been a problem but potential heavy metal uptake by vegetables is a problem on acidic soils.

3. While not considered a fertilizer per se, spent mushroom soil still draws a premium price as a topdressing component in many areas. Residual nutrients from the composting process was, at one time, the major fertilizer source for golf greens.

4. Castor pomace is still used as a nitrogen source in many areas. It is an excellent organic (5% N), but contains ricin, a toxic compound. Many people get an allergic reaction in handling it.

5. Loss of seed meals to the feed manufacturers was a major loss to turf growers. Even though of low analysis, they were easy to use, dependable and generally available.

6. Sodium nitrate and calcium nitrate are still used in many areas with acidic soils. They reduce, somewhat, the need for frequent timing and are readily soluble.

7. Ammonium nitrate is still the most widely used soluble N source in the South and some other areas. It is cheap, readily available and new processing methods make it easier to handle.

8. Urea is probably the most widely used soluble N source in North America. It has a lower burn capability, a high N content and is easy to apply either as a solid or liquid.

To summarize, the older N forms are not as glamorous as the new chemical concoctions, but have not lost their usefulness. The soluble types are useful because of solubility and consequent fast action. Some contain valuable side effects such as pH response and may contain useful minor nutrients. Their solubility also enhances their sprayability when needed.

The natural organics still have a wide use in turfgrass production. Their bulk is beneficial since spreader calibration is easier and they are difficult to misapply. Nitrogen release being dependent on soil microorganisms makes them useful in formant applications in which the major N release does not occur until spring. The large variety of minor elements available reduces the likelihood of deficiency and the form in which they occur makes toxicity unlikely. Nitrogen release is not as prolonged as some synthetics so sudden flushes of available N are not likely during hot, wet summer weather when N is not wanted.

There is still a place for the old timers in the business. If they weren't good, they wouldn't be here at all.

## NEW ROUNDUP USES ARE APPROVED

Monsanto Company has now received Environmental Protection Agency registration acceptance expanding the use of its Roundup herbicide in several areas.

—The following weed, tree, and brush species have been added to the label for Roundup: Texas blueweed, kikuyugrass, reed canarygrass, cattails, Oaks, Maples, Berries, Willows, Honeysuckle, Kudzu, Multiflora Rose, and Trumpet Creeper.

—dry ditches, dry canals, and ditchbanks—may be treated when not carrying water or after final drawdown in irrigation systems. In crop sites, furrows and ditches within labeled crop sites may be treated when not carrying water as long as timing is in accordance with the specific crop label.

—Non-crop use of the recirculating sprayer—controls the same labeled species as recirculating sprayer applications in cotton and soybeans.

—Ornamentals—any ornamental species may be planted following an application. When a directed spray is used, applications may be made only around particular species on the label.

Roundup is a foliar-applied, non-selective herbicide sprayed when weeds have reached a vigorous stage of growth. When applied directly to foliage, it is described as trans-locating throughout the plant, destroying above and below-ground plant tissues, including the reproductive root system. Application rates and timing vary according to the weed species being treated.

Following an application of Roundup, visible effects in most annual weeds occur within two to four days; but, in most perennial weeds, visible effects may not occur for seven days or more.

In commemoration of the tenth anniversary of its Pro-Turf Division, O.M. Scott & Sons, Marysville, Ohio, is republishing its series of ten full color frameable prints of the most popular turfgrass plants in America.

Jim Converse, recognized as one of the world's leading botanical artists, was "commissioned" by the company to do the highly detailed paintings.

Converse has been with O.M. Scott & Sons for over twenty years. His work has been reprinted in many major turf publications, and can be found in university botany departments worldwide. Jim's many years of research experience, combined with his talent as a writer and illustrator of technical information for Scotts, is demonstrated in his published identification guides to dicot and grassy turfweeds. These books have become standard identification aids throughout the turf industry.

The ten paintings represent each region of the country, with the most vivid color and the finest detail, depicting key distinguishing characteristics of each plant.

Five of the paintings illustrate a group of cool season grasses: Tall Fescue, Perennial Ryegrass, Kentucky Bluegrass, Fine Fescue and Creeping Bentgrass. The warm season plants are: Bermudagrass, Zoysiagrass, St. Augustinegrass, Dichondra and Bahiagrass.

All ten 12" x 16" frameable reproductions of these beautiful paintings are available for \$2, to cover postage and handling. (Either the Cool Season or Warm Season Group may be ordered separately at \$1.) Orders should be sent to Scotts Paintings, Dept. A.O., Marysville, Ohio 43040.

"CONSERVATION... OUR KEY TO THE FUTURE"

# 51st INTERNATIONAL Turfgrass Conference And Show

**FEBRUARY 17-22, 1980  
ST. LOUIS, MISSOURI**

## GOLF IN THE LATER YEARS

My muscles are flabby;  
I can't hit a drive.  
My mind often doubts if  
I'm really alive.  
My chipping is lousy,  
I never could putt,  
I guess I'll stay home and  
just sit on my butt.  
My iron plays awful,  
my woods are as bad,  
I'm describing my game as a  
shade short of sad.  
So the outlook today is for  
grief and for sorrow.  
Say! who can we get for a  
fourth tomorrow?

★ ★ ★

*A husband is a man who thinks he  
bosses the house — when in reality he  
only houses the boss.*

★ ★ ★

## Ten Commandments for Living with People

1. *Speak to people.* Nothing is so nice as a cheerful greeting.
2. *Smile at people.* Takes 72 muscles to frown, 14 to smile.
3. *Call people by name.* Sweetest sound is one's own name.
4. *Be friendly and helpful.* If you want friends, be a friend.
5. *Be cordial.* Speak and act to prove everything you do is a genuine pleasure.
6. *Be genuinely interested in people.* Just try and you can like almost everyone.
7. *Be generous with praise*—and courteous with criticism.
8. *Be considerate* with others. There are often three sides to a controversy; yours, his and the right side.
9. *Be alert* to give help. . . . what we do for others lives and is immortal.
10. *Add to all this* a good sense of humor, loads of patience, a dash of humility and you will be rewarded many fold.

*John S. Swift Company, Inc.*

To accuse others for your own misfortune is a sign of lack of education; to accuse yourself shows that your education has begun; to accuse neither others nor yourself shows that your education is complete.

*Epictetus*

# 6 ANSWERS TO QUESTIONS WE NEVER THOUGHT YOU'D ASK (BUT DECIDED TO ANSWER ANYWAY)

**1** **Yes, GCSAA can help you become a better superintendent.** One way it does this is through educational seminars and conference sessions it sponsors each year to help you become better informed about turfgrass diseases, pesticides, landscaping and management practices.

**2** **Yes, GCSAA is helping to further the advancement of the turfgrass industry.** Through the GCSAA Scholarship & Research Fund, Inc., GCSAA provided more than \$13,500 last year in research grants to leading turfgrass programs. GCSAA also provides educational opportunities to turfgrass students through annual turfgrass scholarships.

**4** **Yes, GCSAA offers recognition for superintendents.** Through its public relations efforts, its magazine, and its award programs, GCSAA helps promote the image and the professionalism of the superintendent. GCSAA also provides information to superintendents about how they can use public relations to promote their own image to their course, their community and their association.

**3** **Yes, GCSAA provides a meeting ground for superintendents.** Each year, GCSAA sponsors an annual conference and show for its members. Last year more than 6,500 educators, industry representatives and members from all over the world attended. GCSAA's executive committee decided at its last board meeting that the conference experience is so valuable that first-year members should be encouraged to attend by being given free admission.

**5** **Yes, GCSAA provides each member with a life insurance program.** Supplemental insurance, disability and pension programs also are available.

**6** **No, GCSAA can't help you with your golf handicap.** You'll have to work on that yourself.



## GCSAA

The association that offers you  
more than just a name.

1617 ST. ANDREWS DRIVE • LAWRENCE, KANSAS 66044  
913 / 841-2240

Since we operate on a fiscal year starting with November 1st, dues for the fiscal year of 1980 can now be paid to our Sec.-Treas. Frank Heminger. We prefer that we do not have to send our invoices for dues and ask your cooperation in your sending in your check along with any change in classification, address, telephone number, club affiliation, commercial connection, firm or anything that you would like us to incorporate in our 1980 membership roster booklet. For your information dues are as follows:

Class "A" Membership	\$15.00
Class "B", "D",	\$10.00
Class "E"	\$ 7.50
Class "F", "G"	\$25.00
Class "S-1", "S-2"	\$ 7.50

Name .....(Please print)

Home Address .....

City, State, Zip Code .....

Club Affiliation or Firm .....

Residence Phone, include area code .....Business phone.....

Send Mail to .....

Are you a member of G.C.S.A.A.? Yes.....No.....Do you want an application?

Type membership Class.....Any Recommended Change?.....

If you are a new applicant for membership in our Association and do not understand the category of membership that you might fit into, please ask any of our Officers or Board Members for assistance.

We would like to remind you that if you as a member wish to reclassify your present classification. NOW is the time to do so because we do not automatically reclassify members. A written note must be initiated by the member desiring change and must be sent to our Sec.-Treas. Frank Heminger. If you have any question, ask any officer at this meeting.

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"Remember, son," said father, trying to teach a lesson, "a job well done need never be done again."

"What about cutting the grass?" asked the skeptical boy.  
*The Kleinknecht Encyclopedia*

I can complain because rose bushes have thorns or rejoice because thorn bushes have roses.

*John S. Swift Company, Inc.*

"Oh, please don't trouble yourself," said the departing guest to the weary host. "I can see myself to the door all right."

"It's no trouble," said the host. "In fact, it's a pleasure."

YOU KNOW IT'S A BAD DAY WHEN . . .

. . . you turn on the morning news and they're displaying emergency routes out of the city.

or, your boss tells you not to take off your coat.

or, the bird singing outside your window is a buzzard.

or, your horn goes off accidently and gets stuck when you're following a group of Hell's Angels on the freeway.

or, when your Income Tax Refund check bounces.

or, when the 60 Minutes news team is waiting for you in your office.

or, when your only son tells you he wishes Anita Bryant would mind her own business.

NINTH NATIONAL INSTITUTE ON PARK AND GROUNDS MANAGEMENT, October 28 - November 2, Opryland Hotel Nashville, Tennessee

