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EMIL MASHIE DIES

Emil Mashie, former superintendent at On-wentsia in Lake Forest, Illinois is now playing that great golf course in the sky that never has any trouble. A good friend of everyone, Emil died November 3. He was 62 years old. Memorial services were held at St. Mary's Church in Lake Forest November 12. Many of Emil's friends; superintendents, golfers and suppliers attended the services.

He worked at the club for 32 years. The professional at the club and Emil's best friend, Hubby Habjan, calls him "one of the most outstanding agronomists in his field, a very accomplished golfer and a fine gentleman."

Emil had been champion of the Golf Course Superintendents Association many times. He had led the Tam O'Shanter tournament and made money there consistently. He was also a money winner on the professional tours in the 1930's.

The New Hampshire native had played with such golfing greats as Gene Sarazen, Francis Ouimet, Walter Hagen, Byron Nelson, Jimmy Demaret, and Ben Hogan.

Emil is survived by his wife, Betty, and two children. The family requests that in place of flowers, contributions be sent to the Community Service for the Visually Handicapped, Room 1700, 160 N. LaSalle St., Chicago, Ill. 60601.



PHOTO QUIZ

- 1 correct — you're astute
- 2 correct — you're a golfer
- 3 correct — you're cheating

Hints on next page

Illinois Turfgrass Foundation, Inc.

We know you will not want to miss the 12th ANNUAL TURFGRASS CONFERENCE being held December 2nd and 3rd at the RAMADA INN, 1501 So. Neil Ave., Champaign, Illinois (Phone: 217-352-7891).

This year, for your comfort and pleasure, the Illinois Turfgrass Foundation Officers announce that the entire Conference will be held under the roof of the Ramada Inn. No waiting for shuttle buses, no driving around the University looking for parking spaces, nothing to be concerned about now except the return of your hotel reservation card and your pre-registration forms.

Form a car pool, come in a group with congenial colleagues — this is a program you will not want to miss.

PROGRAM

Thursday, December 2, 1971

10:30 - 12:00 A.M. REGISTRATION

FIRST SESSION

MODERATOR: Dr. T. D. Hughes,
University of Illinois

1:10 - 1:30 P.M. WELCOME ADDRESS
Dr. K. E. Gardner, Director
Resident Instruction
College of Agriculture

1:30 - 2:00 P.M. THE POA ANNUA PROBLEM
Dr. A. J. Turgeon
University of Illinois

2:00 - 2:30 P.M. PESTICIDE LEGISLATION
IN ILLINOIS
Dr. J. Gartner
University of Illinois

2:30 - 2:55 P.M. DEACTIVATION OF HERBICIDE
RESIDUUS IN THE SOIL
Dr. F. W. Slife
University of Illinois

2:55 - 3:10 P.M. BREAK

MODERATOR: Roger La Rochelle,
Woodmar Country Club

3:10 - 3:35 P.M. HOW A MANUFACTURER
LOOKS AT DISEASE CONTROL IN TURF
Mr. R. T. Miller
E. I. DuPont de Nemours & Co.

3:35 - 4:00 P.M. CURRENT TURF DISEASE
CONTROL RESEARCH
Dr. J. M. Vargas
Michigan State University

4:00 - 4:20 P.M. TURF NEMATODE PROBLEMS
Dr. P. B. Malek
University of Illinois

4:20 - 4:40 P.M. TURF INSECTS AND THEIR
CONTROL
Dr. R. Randell
University of Illinois

4:40 - 5:00 P.M. QUESTION AND ANSWER
SESSION
Above Speakers

7:00 P.M. I. T. F. BANQUET

GUEST SPEAKER DR. M. P. BRITTON
Flathead Junior College
Kalispell, Montana

Friday, December 3, 1971

SECOND SESSION

MODERATOR: Thomas Guttschow,
Highland Park Country Club

8:30 - 9:00 A.M. CURRENT TURF FERTILITY
RECOMMENDATIONS
Mr. J. Latham
Milwaukee Sewerage Commission

9:00 - 9:30 A.M. SLOW RELEASE NITROGEN
FERTILIZERS FOR TURF
Dr. T. D. Hughes
University of Illinois

9:30 - 10:00 A.M. SODDING TECHNIQUES
Mr. B. Warren
Warren's Turf Nursery

10:00 - 10:15 A.M. BREAK

MODERATOR: Jack Moffitt, Drake-Scruggs Equipment

10:15 - 10:45 A.M. WINTER INJURY PROBLEMS
IN TURF
Mr. R. Mazur
University of Illinois

10:45 - 11:15 A.M. PROFESSIONAL IMPROVEMENT
FOR THE TURF MANAGER
Mr. James Brandt
Danville Country Club

11:15 - 11:30 A.M. QUESTION AND ANSWER
SESSION
Above Speakers

11:30 - 11:50 A.M. I. T. F. ANNUAL MEETING
President Guttschow, Presiding

Following the business meeting — a luncheon meeting of the Board of Directors of the I.T.F. will be held.

We hope the attendance will be 100% — and — we know many of you will not want to miss visiting and renewing acquaintances with Dr. Mike Britton.

GENERAL INFORMATION

REGISTRATION: The registration fee for this conference is \$13.00. A copy of the proceedings, coffee and rolls, and admission to the banquet Thursday, December 2nd are included in the registration fee. The registration fee does not include other meals or housing. To insure a place for yourself at the conference, enroll in advance by completing the enclosed registration card and mail it with your check to the ILLINOIS TURFGRASS FOUNDATION, 15515 Wolf Road, Orland Park, Ill. 60462.

All registrants are requested to check in at the Conference Desk, between 10:00 and 12:00 A.M.

HOUSING INFORMATION: Rooms have been set aside at the Ramada Inn — make your reservations for housing direct to the Inn or Hotel of your choice.

ADDITIONAL INFORMATION: Additional information about the conference may be obtained by writing to Dorothy Carey, I.T.F., 15515 Wolf Rd., Orland Park, Ill. 60462.

PHOTO QUIZ

Hints

All shots taken from the southeast.
All shots from north of the Eisenhower Expressway.

Answers on page 7.

Irrigation Drainage Time

Douglas A. Bruce, P. E.
Vice President — Miller Sprinkling Systems
Royal Oak, Michigan

It's the time of year again to think about protecting your irrigation system against the damaging freezes of winter.

The deep frost of last winter caused more damage to irrigation systems in the Midwest than any two winters combined in the last 10 years. Frost damage to an irrigation system occurs from the following causes and in the following order of frequency:

1. Low temperature at periods of light or no snow cover.
2. Poor drainage procedure — drain entire system poorly.
3. Incomplete drainage — forgot to drain part of system.
4. Water standing on the ground surface above an open drain valve or sprinkler head.
5. Contraction of piping and ground heave due to temperature change.

"Blowing out" of irrigation systems with an air compressor has gained in popularity in the last five years. Coupled with good procedure, blowing can minimize most of the above causes.

The following sequence for drainage should be followed in order and tailored to your particular installation:

1. Several days or a week before actual draining:
 - A. Locate irrigation drawing.
 - B. Turn off water supply.
 - C. Open drains that flow directly into tile lines, creeks, or ponds.
 - D. Insert sprinklers at the high and low points of the lines to allow air to replace the water as the low head drains.
2. Connect suitably sized air compressor near the source of water.

(Note) A piping system of 3" and less can be blown quickly with 1-125 cfm compressor. Piping systems 4"-8" can be blown faster with less chance for error with 2-125 cfm compressors.
3. Beginning at the pumphouse, open each sprinkler outlet until you get air and no water, then close, on one branch of the main line and follow it to the dead end. Do the same on each branch of the main line until you have air and no water coming from each outlet. **(Note)** Several men "leap frogging" with golf carts makes this quite fast. Be sure to allow compressor to build up pressure so the water will be moved with a large volume of air.
4. Repeat step 3 to check drainage.
5. Starting again at the pumphouse and working toward the end of each lateral, crack the drain

valves slightly to be sure air and no water escapes. Close the drain, wait a minute, and repeat. Water may have collected at the low points. **(Note)** Drains and standing surface water usually occur at low points in the terrain. Closed drains will prevent the surface water from entering the pipe line through the drain valve, along with stones from the drainage sump, and eliminate the drain closing chore during spring turn-on.

The basic piping system is now drained and special attention is needed to properly drain the pumphouse. One small slip at this state of drainage could be very expensive.

6. Pumphouse drainage:
 - A. Starting at the discharge line in the pumphouse wall, trace the flow of water in the piping through gate valves and check valves and open necessary drains.
 - B. Drain pump volutes by removing the bottom plug or opening drainage cock.
 - C. Remove or drain suction drop pipe.
 - D. Remove water from pressure reducing valve covers by blowing out or loosening cover bolts.
 - E. Turn pump motors off and protect windings against possible rodent nesting.
 - F. Drain water from pressure gauges, switches, tank sight glasses, tank air chargers, and other special items subject to freeze in the pumphouse.
7. Program automatic valves to operate once a day for 5 minutes to prevent the solenoid plunger from sticking and reduce the moisture in the solenoid coil and automatic controller contacts.

Before going out and renting an air compressor and blowing your system, take several hours with your blueprint and the above procedure. Write down in sequence the steps you plan to take when you start actual drainage. The steps can be listed by thinking of yourself as entering the pipeline at the source of water and your job is to push the water out on top of the ground as you move through the pipe. What routes will you have to follow to push all of the water out the dead end of every line? What will you do when you come to a branch tee that feeds another fairway or splits and goes both ways at the front of a green? When do you get to the end of the line when the system is looped? The same routes you took entering the pipes at the source to get to the dead ends must be followed by the wall of air you will put into the system when blowing out.

Frost damage repairs have got to rate near the top of the bad job list. In addition, they occur at a critical time of year from a manpower standpoint, and can cause several weeks of anguish if the dirt is not properly flushed after the repair is made. Now is the time to think about any necessary pump and sprinkler repair required for next year's operation. Get the necessary part on order and make the repairs conveniently in the winter rather than wait for the spring rush.

Good luck in your drainage this fall. The old adage "you make your own luck" was never truer.

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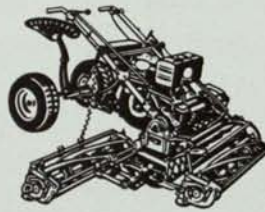
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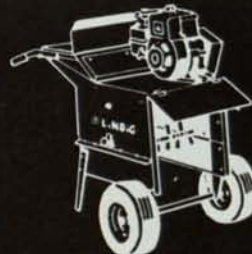
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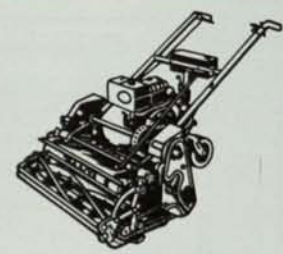
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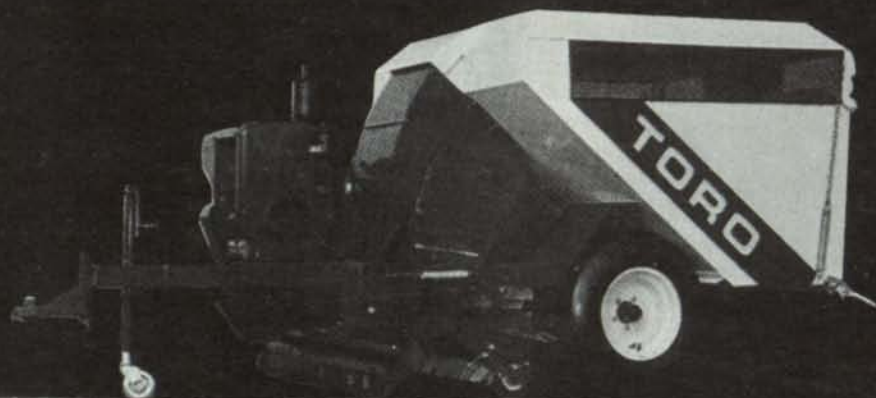
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RAKE-O-VAC FROM TORO.

What To Do About Spiders

by Stanley Rachesky
Entomologist, University of Illinois

The brown recluse spider, is it in Chicagoland? The answer is definitely yes. This past week 5 brown recluse spiders were positively identified by our office. All were from one residence in the Bloomingdale, Roselle, Keeneyville area of the western suburbs of Chicago.

Many area residents are concerned over the presence of this particular spider. In the past 4 years over 4,300 spiders have been submitted for identification. A total of only 12 have been identified as brown recluses.

This is the time of the year that many different kinds of spiders will gain entrance into your homes. They're seeking warmth and nesting sites for the winter.

All spiders are poisonous to some degree. They kill their prey by injecting them with their toxic substances. In Illinois we have 2 species of spiders which are considered poisonous to man; the brown recluse (violin spider) and the black widow. However, that doesn't mean that so-called non-poisonous species won't give you a problem. If you are an allergic-type person or hypersensitive to the toxin of these other spider species, you may exhibit symptoms of nausea, headache, abdominal cramps, general malaise, etc. after being bitten.

Because spiders feed on insects, they could be considered a beneficial type of animal, when they are found in their natural environment. However, when they're found in your environment, your home, it's now a question of family health and safety. When found living indoors, they should be controlled.

Your house can easily be made spider-free by foundation spraying with either chlordane or Diazinon. Both of these insecticides are readily available at your local garden center, hardware store, or farm supply.

These materials are applied as a spray around the outside foundation of your home. Treat 2 or 3 inches up on the foundation wall and the same distance out onto the soil. The average size home requires 4-6 gallons of the diluted spray material. Follow label directions carefully for dilution rates. These materials can also be applied indoors on the baseboard areas with a compressed air sprayer, paint brush, or in pressurized spray cans. Write for our University of Illinois brochure #887 — "Keep Outdoor Pests Out of Your Home" — Send a self-addressed, stamped (8¢) large size envelope.

PHOTO QUIZ

Answers

1. Inverness — Mike Bavier
2. Medinah — John Jackman
3. Indian Hill — Bill Saielli

Don't send answers in for a prize. There isn't any!

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The following article was contributed by Paul Bando of SISCO.

LIGHTNING

The occurrence of rainfall brings positive charged ions from the air to the ground, leaving a surplus of electrons in the air. When the potential difference between the earth and the surrounding air builds to a certain limit, an arc is formed as the electrons move at the speed of light toward the positive charge. Ionization of air between the two areas of positive and negative charge generates the flash of light and discharge of energy called lightning.

Protection of Sprinkler Equipment From Lightning

Lightning, or any other form of electricity, will seek the path of least resistance in its attempt to reach the ground potential. If lightning strikes an area where both an electrical insulator and a metal object are present, both tied to the ground, the lightning will strike the metal object, since it is the path of least resistance to ground.

A sprinkler system which uses electrically operated remote control valves will usually have a common wire tied to all valves in the system. If this wire is not grounded and lightning strikes it (with many thousands of volts) an instantaneous current will flow through all the solenoids to the control wires and eventually through the insulation to ground. This instantaneous high voltage and current will destroy any solenoid through which it passes.

It is recommended that in order to protect against destruction of all solenoids in areas susceptible to lightning, that the common wire to the valves be grounded to any good electrical ground. This ground can be a metal water pipe, a third ground wire provided with the 115 volt service, or a steel rod driven into the ground a minimum of 6 feet. The electrical path of least resistance will then be through the water pipe (or other ground connection) and not through the solenoid. If lightning does strike a solenoid or a control wire to the solenoid, the current will pass through only that solenoid to ground. The other solenoids will therefore be protected.

Automatic controllers should have their cases grounded. Controllers which actuate pumps should use the pump switch to actuate only a pump relay. This will isolate the pump circuit from the controller and isolate any possible electrical overload in the pump circuit from acting on the controller.

The 115 volt power lines to the controller should have a lightning protection device installed in each controller between these two lines. This device will protect the input side of the controller against high voltage transients caused by lightning striking the power lines.

There are two basic types of lightning arresters presently available. The most common is the spark gap type of arrester. This is a device which has two electrodes mounted in a capsule filled with gas. When voltage reaches a predetermined maximum the gas is ionized creating a direct short between the two electrodes. With one of the electrodes connected to ground, the high voltage transient is shorted to ground, thus protecting any devices down the power lines. Spark gap type of protectors generally protect against voltage surges above 1000 volts with response times anywhere from instantaneous to one second. Some are good for only one shot and then must be re-

placed. Others may be reset or are good for 50 to 100 strikes.

Zener type protectors are solid state devices which can be purchased to protect against voltage surges of 6 volts and up. Due to the precise firing level that can be obtained from this type of device, they are excellent for protecting sensitive electronic circuitry. They will dissipate up to 1500 watts of peak pulse power or 200 amps for 1/120 second.

In summary, grounding of all common wires and insertion of lightning arresters in incoming power lines where necessary, will virtually eliminate mass damage to irrigation systems caused by lightning.



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2. Do you neglect to point out unguarded work hazards?
3. Do you allow the use of bad tools and of machines out of order?
4. Do you place men together who irritate each other?
5. Do you place men on jobs for which they are not fitted?
6. Do you transfer a man to another job without explaining the reason, or without letting him know whether his work has been satisfactory?
7. Do you fail to recognize the varying importance which workers attach to different jobs in the same labor grade?
8. Do you expect an employee to be able to do a job after being told or shown only once, or not at all?
9. Do you use unfamiliar trade terms without explaining them when speaking to an inexperienced worker?
10. Do you allow a new employee to repeat his mistakes without correcting him?
11. Do you leave a new man alone on a job he does not fully understand long enough so that he becomes discouraged?
12. Do you ignore an employee's complaint or handle it with snap judgment?
13. Do you neglect to offer help and counsel to an employee occupied with a personal problem?
14. Do you endeavor to "jump in" and set the pace of workers without first discussing low output with them?
15. Do you say you are "too busy" to listen to an employee's troubles or grievances?
16. Do you appear to be "high hat" to your employees, even if you don't mean to be?
17. Do you leave the worker alone on a job for a long time without a friendly word?
18. Do you neglect to speak a good word for a job well done?
19. Do you make of a man's mistakes and keep still about his successes?
20. Do you take the credit for yourself of an employee's suggestions?
21. Do you give orders without giving reasons?
22. Do you reprimand a man in the presence of others?
23. Do you lose your temper easily?
24. Do you threaten a worker directly or indirectly with the fear of losing his job?
25. Do you "drive" men rather than "lead" them?
26. Do you delegate responsibility?
27. Do you have incentives?
28. Do you have benefits other than wages?
29. Do you have a training program?
30. **Do you think you could work for a man like yourself?**

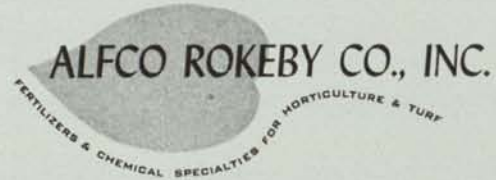
Perhaps we are asking a lot of questions and we are, but labor management today is of greater concern to the manager than ever before. Most of these questions were asked in 1945 in Extension Bulletin 666, we added a few of our own and probably you could add some as well.

The operator who has the least problems with his labor force is the man capable of giving the correct answers to these questions.

Jan L. Jansen, Cooperative Extension Agent

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