

If the storage area is not insect tight, as is true of many closets, trunks and boxes, use a fumigant, residual spray treatment (0.5% dizinon—available in pressurized spray cans) or cloth impregnation treatment.

Fumigation: Either naphthalene or PDB (paradichlorobenzene) is the active ingredient used in moth crystals, flakes, or balls. These are gases that will kill the insects. These chemicals used as space fumigants will protect your clothes for months on end. In other words, when you place so much of the product in an enclosed area, such as a storage trunk, a gas is released to control clothes moths larvae, carpet beetle larvae and other types of clothes-destroying pests. The gas is absorbed into the insects' respiratory system, the system by which they breathe.

Use one pound of crystals, flakes or balls to every 100 cubic feet of space. Multiply length by width by depth in feet to obtain the cubic-foot capacity. No-pest resin strips also provide protection against the carpet beetle and clothes moth larvae and can be used in closets and storage trunks. In fact, the no-pest strip might be preferred as they leave little odor in the clothes and are not attractive to children as are the moth balls which resemble candy.



John Jackman, Host Superintendent



L. Bob Kronn M.A.G.C.S. Champion. R. Peter Voykin Runner-up.



Albert Staudt, Sr. Champion.

23RD ANNUAL TURF CLINIC

Wednesday, December 3, 1975

Medinah Country Club

- 8:30 Registration Howard Baerwald
Bert Jannes
- 9:00 Moderator Carl Grassl
- 9:05 Call to Order Fred Opperman
- 9:10 Host Superintendent John Jackman
Communication & Motivation
- Session I*
- 9:15 Keynote Address Dr. Al Turgeon
- 9:45 Environmental Protection Agency
-Effects on Supt. Richard Lamkey
- 10:05 Environmental Protection Agency
-Effects on Pesticide
Manufacturer Donald Maske
- Break
- 10:25 Supt. - Greenchairman
Relationship Donald Johnson
- 10:45 Supt. - Manager
Relationship Roger LaRochelle
- 11:05 Supt. - Golf Pro
Relationship Bruce Burchfield
- 11:25 Relating the Rules
of Golf John Marshall PGA
Questions
- 12:00 Lunch
- 1:15 Moderator Carl Schwartzkopf
Guest Speaker Walker Williams
Marriott's Dept. of Personal Development
- Session II*
- 2:15 From Assistant to Supt. Carl Langrebe
- 2:35 Benefits of the Supt. John Berarducci
- 2:55 Budgets & Inflation Robert Siebert
- Break
- 3:15 New Ideas Donald Hoffman
- 3:35 New Pythium Kenneth Quandt
- 3:55 Maintaining Turf '75 North Gene Palrud
- 4:15 Maintaining Turf '75 South Oscar Miles
Questions
- 5:00 Cocktail Hour
- 6:30 Banquet
After Banquet - U.S. Open
Slides John Jackman

From one pro to another



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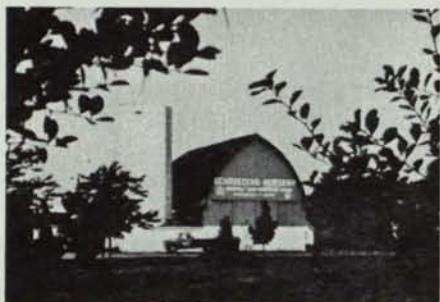


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DEW IS NOT DEW

by Tom Mascaro

Dew, in the popular sense, is water of condensation. Dew forms on a cold surface when the air is warm and water is present as humidity.

The "dew" we find on turfgrass areas is not water of condensation. This water is the plant sap being pumped out or "exudated" from the hydathodes. The hydathodes are relief mechanisms that transport excess water out of the plant system.

Relatively speaking, very little research has been done on this important function of turfgrass culture. In 1887, Dr. Marloth in Egypt studied the Tamarix (salt cedar) and found that it exuded salts and identified them.

Dr. J. K. Wilson, Cornell University, in 1923 found that the difference in dew on a turfgrass area was not due to soil moisture, but to the species that grew. He classified the different grasses in the following manner:

1. Bentgrasses, Bermudagrasses, and Poa Annua are prolific pumpers of exudate and rated them high.
2. The Bluegrass family (with the exception of Poa Annua) were medium pumpers of exudate.
3. Zoysiagrasses, fescuegrasses and ryegrasses were low pumpers and produced the least amount of exudated water.

This difference in the rate of exudation explains why we can observe patches of heavy "dew" on turfgrass areas that are not pure stands.

Dr. Endo, University of California in 1969 found that spores of dollar spot fungus grew sparingly in ordinary water, but when the spores were germinated in exudated water they grew sparingly to well and caused a variable amount of infection. In other words, exudated water increased infection and disease. It induced acceleration and increase in spore germination.

Dr. G. N. Hoffer, Purdue University, in 1949 demonstrated that quickly available nitrogen was rapidly transported through the leaf tissue and into exudated water. The high salt content of the exudate caused leaf, stem and root burn.

With this background information we can begin to understand better why the United States Golf Association Green Section advocated syringing of greens many years ago. Their findings indicated that the Superintendent who syringed his greens in the early morning had less disease than the man who didn't.

This practice very simply diluted the concentration of the exudated water and rendered it harmless.

Exudated water contains glutamine, a form of sugar that is ideal for bacterial and fungal growth. If you touch your hand to exudated water you will feel the stickiness of this material which is identically the same as the plant sap.

The salt index of exudated water will rise sharply when quickly available plant foods, (especially nitrogen) are applied. If these salts are allowed to accumulate in the thatch or compacted soil surface root, stem, or lower leaf, burn may occur. The potency of the exudate can be demonstrated by gathering a cupful from a well fertilized green and pouring it in one spot. A chemical burn will result.

These combinations of factors can and do have a profound effect upon the survival of turfgrasses under certain conditions. Until more research is conducted to supply more information, the wise turf manager will:

1. Practice early morning syringing to dilute exudated water.
2. Use sufficient water to wash the exudate into the soil. Aerify to insure water intake.
3. Use slowly available plant foods to minimize the salt concentration in the exudate. If quickly available plant foods are used, split the feeding into light amounts on a frequent basis.
4. Control thatch to minimize the accumulation of exudate. Frequent vertical cutting, light top dressing, dragging, brushing, all help to keep excess thatch under control.
5. PH is a factor that can be related to exudated water. The lower the PH, the more susceptible turfgrasses are to disease attack. Dusting (during periods of stress) with 5 to 10 lbs. hydrated lime per 1,000 sq. ft. when grass is dry, or applying Dolomitic limestone 10 to 20 lbs. per 1000 sq. ft. will change to PH in the thatch layer, which can become very acid.

I hope that this discussion "Dew is Not Dew" has given you a better understanding of this rather unrecognized subject.

Some will continue to call it "Dew", others will call it "Exudated Water". Another common name is "Guttated Water" or "Guttation Water". Poets will eternally call it "Fairy Rain". By whatever name we call this liquid that is exuded from the Hydathodes of the grass leaf, we must always remember that this is a normal function of the plant. The turfgrass manager that recognizes this basic principle and adapts his management practices to it wisely, is the one who will produce superior putting surfaces for better golf.

The South Florida Green

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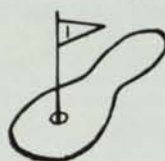
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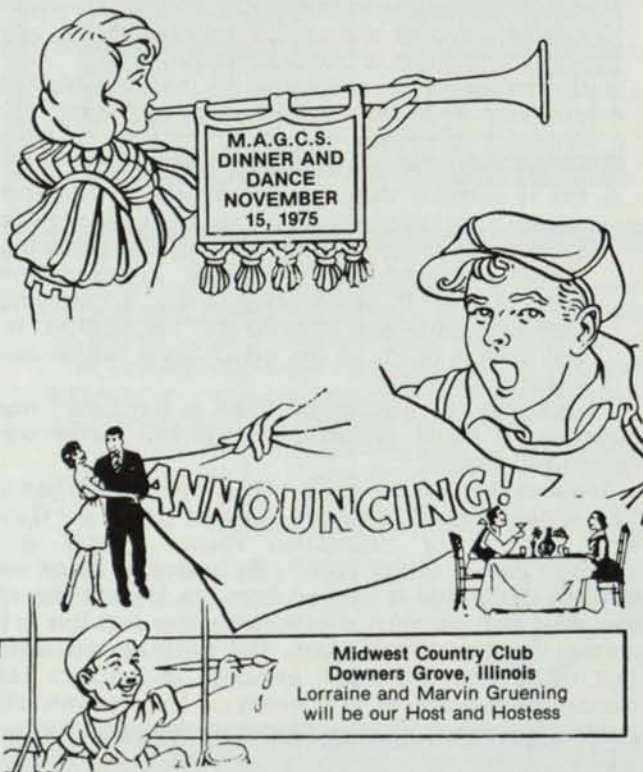
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CHLORDANE AND HEPTACHLOR USE CANCELLED

The Environmental Protection Agency (EPA) has issued a cancellation notice for chlordane and heptachlor insecticides effective December 19, 1974. Only two registered uses of these chemicals are *not* affected by the notice. These are "subsurface ground insertion for termite control, and the dipping of roots or tops of non-food plants." All uses for turfgrass insect control *are* affected by the notice.



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The G.C.S.A.A. nomination committee has selected Mike Bavier M.A.G.C.S. Pres. as a candidate for Director in the G.C.S.A.A. All of us should give Mike our support.

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SELECTING AND STORING FIREWOOD

When selecting firewood - the kind and the dryness of the wood should be major considerations. Two distinct types of wood exist - the softwoods and the hardwoods.

The softwoods are pines, spruce and other evergreens, and are not commonly used in Illinois as firewood.

The degree to which oak, hickory or elm produce good heat is dependent on wood fiber. The heavier woods have large amounts of wood fiber and thus burn better. In addition, firm wood will burn hotter than decayed or rotten wood.

Oak, hickory, birch, apple and sugar maple are the best. Ash, black cherry, elm, silver maple and black walnut are good. Aspen, basswood and cottonwood are some of the poorest.

If you have lost an elm tree and have had it cut up for firewood...you should either remove the bark or make sure you burn it all before next spring. The reason is that the beetle that transmits the Dutch Elm Disease could overwinter under the bark of the elm firewood. Therefore, in order to help reduce the spread of the disease, burn or destroy the dead elm trees and logs before the beetles hatch next spring.



Benn Kronn Sr. M.A.G.C.S. Golf Runner-up.