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LETTERS TO THE EDITOR

Dear Ray:

First, I want to wish you a belated Happy 80th Birthday. Second, pass on to those responsible my special thanks for the honorary membership in the Midwest Association.

Continued success to both the Association and to you, Ray.

Roscoe Randall Extension Specialist in Entomology

Dear Ray:

So they put one over on you when Vol. 33 No. 4 was printed! I am glad to be able to say "Happy Birthday" and wish you well.

The effluent-water project is a worthy one. Have the project leaders availed themselves of the data from a long term similar study at Penn State? Some of the findings may be useful.

To indicate my long-term concern for water use on turf I enclose my personal check in the amount of \$25 to be forwarded to Dr. Turgeon to be used in support of this work. It isn't much but I want to stand and be counted. Please give The Musser Foundation credit for the donation. By sending it directly it saves book work.

M.I.T.F. is supporting a WATER-USE project on the graduate level at Texas A&M. In 1946 I found Jim Watson at Texas A&M and sent him to Prof. Musser at Penn State to do his Ph.D. thesis project on "WATER-USE". We seem to be back at Square One. It was important then but it is infinitely more important now.

The **Bull Sheet** ranks at the top and I'm glad that you continue to send it to me.

Keep up the good work!

Sincerely Yours For Better Turf, Fred V. Grau, Pres. The Musser International Turfgrass Fdn.

Dear Bob:

Many, many thanks to you and your board for my Honorary Membership in the Midwest Association. I treasure this and am very proud to be a member. Please call on me anytime I can be of any help to your organization.

> Donald F. Johnson, Pres. Chicago District Golf Association





Editor

MIDWEST BREEZES

Congratulations! On August 22nd, 1979, **Alissa Gene**, weighing in at 9 lbs. 15 oz., came to live with her parents, **Jim & Sue Reed**. The paternal grandparents are **Russ & Ruth Reed** and the maternal grandparents are **Ed & Jean Stewart**.

Recently this editor stopped in to visit with Supt. **Peter Leuzinger** at the St. Charles C.C. Peter gave me a tour of the entire grounds. The golf course was in magnificent condition. The apples were superb. The many varieties of flowers on the grounds were just beautiful. Peter is deserving of an A + for the fine job he is doing.

Art Benson, Sr., former Supt. at St. Charles C.C., retired at the age of 70. During his first year of retirement Art decided this was not for him. He was offered the position of consultant with the Oak Brook Landscaping Co. They will be responsible for the building of the new Village of Oak Brook's golf course. This should keep Art busy during the summer months after his winter months in Florida. Not a bad deal for a senior.



Ken Goodman

M.A.G.C.S. Sept. 4 meeting at Crystal Lake C.C. was enjoyed by over 90 members. 71 of these took part in the golf championship and all reported the golf course in magnificent condition. This was made possible by the know-how of Supt. Jack Hanson. We all thank him. The championship was won in the A bracket by Supt. Ken Goodman with a 74; in the senior class by John Stephenson - 81. In the 2nd division 1st Tom Rader - 78, senior Ben Kronn - 82, associate Vern Rascker. Nearest to the flag on #2 - Harold Michels, on #11 - Thomas Rader. Longest drive - Ray Schei. Longest drive seniors - Al Bertricci.

Peoria - Ray Schei 64, Wayne Trometter 65, Tim Miles 67, Frank Krueger 67, Domenic Grotti 69, Roger Jury 68, John West 68, Mike Bavier 68, Darryl Taggart 69, Bob Williams 69, Bob Malpede 69, Bob Heal 69. Blind Bogey 75 - Clarence Mitchel, Richard Kensinger, Rick Hahn, Russ Reed; with 83 - Jack Hanson, Sean Hoolihan; with 80 - Charlie Shiley, Ed Fischer, James Halloran, and Jim Knulty.

Fischer, James Halloran, and Jim Knulty. The report is Walter Fuchs threw one of his golf clubs 45 yards. I think Bonnie should be on the watch when he is around. The M.A.G.C.S. thanks every one who helped make this day a most enjoyable one. Just to mention a few; the members of Crystal Lake C.C. for the privilege and permission to hold this meeting at their wonderful club, all the employees - just super, Chicago Toro, Illinois Lawn, Turf Products, Lake Shore Equipment and many more that contributed prizes.



John Stephenson

The editor saved the best report to the last. The occasion was a wonderful surprise on my 80th birthday. This could have only been made possible by associating with a wonderful group of people. The large birthday cake with all the appropriate design on top and all the 90 members plus the waitresses standing and singing Happy Birthday is something I will never forget.



Birthday Cake

The M.A.G.C.S. October 9 meeting will be held at St. Andrews C.C. John Lapp, Supt. will be our host.

Our M.A.G.C.S. Annual Turf Clinic will be held at Medinah C.C. on November 27 and 28. **Don Pakkala**, Supt. will be our host.

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ELIMINATE BEES AND WASPS ONLY IF THERE IS DANGER

Q—Will bee and wasp problems be as big a problem this year as they have been the last three years? A—That's a hard question to answer because insect populations are dictated by their environment. Indications so far show that populations are on the increase again and usually peak out about the end of August.

Hornets, yellowjackets, paper wasps, mud daubers, and cicada killers are the wasps that commonly occur in Illinois. The world has 110,000 different species of wasps. They are great pollinators, and it has been said that life would cease to exist without them. However, when they build their nests near homes or in recreational areas, they become pests and should be controlled.

Wasps often are identified by the nests they build. Hornets build large, football-shaped paper nests in tree limbs or under eaves. Yellowjackets usually build their nests below ground but sometimes choose attics or wall voids. Paper wasps build small, umbrellashaped nests under eaves or in trees and shrubbery. Mud daubers construct parallel clay or mud tubes as nests in attics or under eaves. Cicada killers dig holes in the soil to establish their nests. Hornets, yellowjackets and paper wasps abandon their nests in the fall.

Mated queens are the only survivors. These queens live out the winter in protected areas, such as under tree bark or in attics. Mud daubers and cicada killers overwinter as larvae in their nests.

Hornets, yellowjackets and paper wasps are social insects. Queens (fertile females), workers (infertile males) and males make up the colony. Social wasps will defend their nests by stinging. Mud daubers and cicada killers are solitary wasps. They rarely sting.

Wasp and bee control usually is not difficult. First of all, I am not advocating the destruction of any wasp nest or bee hive you see, but only those that pose a direct threat to health and safety. For best results apply your controls in the evening after the sun has set or in the early morning hours when all the insects are in their nests. Treat the nests directly. Wet aboveground nests thoroughly with a spray.

Soil nests are best treated with a dust or granular formulation of insecticide. The most available insecticides of choice are sevin and diazinon. They may be purchased at your local garden center. After the nests have been treated, wait at least 24 hours before removing. Read and follow all label directions carefully when using an insecticide.

Stanley Rachesky, Entomologist University of Illinois



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SNOW MOLDS

Malcolm C. Shurtleff and John R. Street 1

The winter of 1978-79 has provided ideal conditions for the development of one of our more serious winter injury problems--snow mold. Golf courses and other turfgrass areas in Illinois were blanketed with several inches to a foot or more of snow depending on location. Snow cover in the northern areas of the state occurred in mid-to-late November and extended well into March. In many areas, the turf and soil underneath the snow cover were not frozen, and in the central areas of the state, ice cover preceeded the snow. These conditions resulted in serious snow mold injury in many areas, especially northern Illinois. Snow mold pressure and damage was extensive even on turfgrass areas receiving preventative fungicide applications.

Snow molds damage lawns and fine turfgrasses from December to April especially in shaded or wet areas where the snow is slow to melt. Roots, stems, and leaves may be rotted over a wide range of temperatures (25° to 60°F.). Injury may take place under the snow, as the snow is melting, or during cold, drizzly periods when snow is absent. Snow mold damage frequently conforms to footprints, paths, ski tracks, etc., because compaction of snow favors the disease. Attack by snow mold fungi ceases when the grass surface dries out; however, infection tends to reappear in the same areas year after year.

Snow molds are favored by mid-to-late fall applications of nitrogenous fertilizers or by a cover of straw, leaves, or other moisture-holding debris on the turf. Disease is most serious when air movement and soil drainage are poor and the grass stays wet for long periods.

There are two types of snow mold, gray snow mold, also known as Typhula blight or snow scald (caused by the fungus **Typhula itoana**), and pink snow mold or Fusarium patch (caused by the fungus **Fusarium nivale**). The two types are found in the same geographical areas in the United States, including Illinois. Pink snow mold may be found farther south than gray snow mold.

Gray Snow Mold, Typhula Blight, or Snow Scald

Gray snow mold appears to have caused the most extensive damage so far this winter. Gray snow mold appears in turfgrass areas as roughly circular, dead, bleached-brown areas up to a foot or more in diameter. Several spots may merge, forming large, irregular areas. The wet grass may be covered at first with a fluffy white mold (mycelial) growth that soon turns bluish-gray to almost black. At other times a silvery membranous crust develops over the injured turf. It is during this period of active growth that the Typhula fungus produces small, hard, tan to chocolate brown resting bodies called sclerotia. These sclerotia are embedded in the leaves and crowns of diseased plants and lie dormant during the following summer and early fall. The sclerotia can be easily seen on close observation. In cold, wet weather -- at temperatures as low as several degrees below freezing--they germinate to produce delicate threads (hyphae) under the snow.

A deep snow cover on unfrozen soil produces optimum conditions for disease development. The fungus hyphae infect all tissues of the grass plant and start the disease cycle once again. The fungus is inactivated while the turf and soil are frozen. In early spring, when the snow melts and the turf thaws, the fungus again becomes active, and the size of the infection centers enlarge rapidly. As the weather warms and the turf dries, **Typhula** becomes dormant until late fall. The optimum temperature for growth of the fungus in culture is between 46° and 59°F. The organism is not seed-borne.

Pink Snow Mold or Fusarium Patch

Pink snow mold patches are round and usually smaller than those of gray snow mold, commonly being one to three inches in diameter. Under prolonged cold, wet conditions, the spots may enlarge up to about a foot across or merge to cover large areas. In cool, wet weather the bleached-brown patches may be covered with a dense whitish-pink mold growth. As with gray snow mold, the slimy growth quickly disappears as the grass blades dry. Usually only the leaves are attacked. but the fungus may cause a rotting of the crowns, killing the plant. Conditions favoring pink snow mold include a wet fall, snow falling on unfrozen soil, deep snow, and a late, cold, wet spring. Infection and disease development occur most rapidly when the humidity is high and temperatures are 30° to 45° (maximum about 65°F).

When temperature and moisture conditions are favorable, the fungus produces tremendous numbers of microscopic spores. These spores are carried primarily by air currents and water to grass leaves. Infection occurs through breathing pores (stomates). The fungus can exist and attack grasses in **all** soils from strongly acid to alkaline. (Fungus growth occurs in culture from a pH of 2.5 to 13, with an optimum of about 6.6 to 6.9). **Control**

In general, the bentgrasses are most susceptible to both snow mold diseases. Snow mold damage can also be quite severe on annual bluegrass. Turfgrass damage is usually more extensive and severe on closely mowed turf (e.g. golf course greens) and on areas where heavy rates or improperly timed nitrogen applications in mid-to-late fall stimulate shoot growth going into the winter. Thus, late fall fertilization, if attempted, should be applied after shoot growth has ceased in late fall. Thatch also appears to favor the development of these diseases. Where snow molds cause damage year after year, the construction of barriers (like snow fences or windbreaks) will keep snow from accumulating and help to reduce disease.

Preventative applications should be made before the first heavy snow or cold, drizzly weather is forecast in November or early December. Fungicides labeled and recommended for winter disease control are listed below. Follow the manufacturer's directions carefully. Reapply one or more times during the winter or early spring as the snow melts.

	Typhula blight	Fusarium patch
	Tersan SP	Tersan SP
	Calo-clor*	Tersan 1991
	Calo-Gran*	Calo-clor
		Calo-Gran

* (Calo-clor and Calo-Gran are cleared for use only on golf course greens, aprons, and tees by certified golf course superintendents only).

Areas damaged by snow mold should be raked during the early spring to break the crusted, matted leaves. A light fertilization is also advantageous at this time. These practices will encourage the production of new growth in the affected turf areas. Recovery is usually slow on areas left unattended. Reseeding or sodding will be necessary where crown and root rot has occurred.

¹ Malcolm C. Shurtleff is Extension Plant Pathologist, Department of Plant Pathology, and J. R. Street is Extension Turf Specialist, Department of Horticulture.

