

PRESIDENT'S MESSAGE (cont'd from page 2)

association in the country. If you know a fellow superintendent, assistant superintendent, golf course employee or others interested in promoting the M.A.G.C.S., encourage them to join. We welcome any new members interested in becoming active members. We want people to attend our monthly meetings on a regular basis and have a positive influence on the association.

The publication you are reading right now, the **Bull Sheet**, has recently received the Eckhoff Award from the National Golf Foundation. This is the third year we have received an award from N.G.F. This year we won first place for excellence in golf journalism. Our congratulations to editor, Fred Opperman for the fine job he has done in editing, assembling, and improving the quality of the **Bull Sheet**. We would also like to thank the companies that advertise and purchase column space to help support the success of our monthly publication.

The first M.A.G.C.S., Inc. golf outing of 1987 will be held at Inverness Golf Club in Palatine on Thursday, April 23. The golf and arrangements committee have done a fine job of organizing the days activities and golf event. I personally would like to see more of our meetings scheduled during a week day other than Monday. Monday is definitely the busiest day of the work week for us. The course is closed, so we schedule special projects for Monday. Many times it is difficult to leave the course because of the heavy work load. Tuesday and Thursday are usually slower days that afford more time to get away from the golf course. Hopefully, the weather on the 23rd will be beautiful, and we will have an opportunity to golf and enjoy the comradeship of our friends and fellow superintendents.

James E. Evans

Bruce Williams Biography



Bruce R. Williams has been a superintendent for eight years — all at Bob O'Link Golf Club, where he served as assistant superintendent and moved up to replace his father, Bob, when he retired. Bruce has been a Director of the MAGCS for three years. He has served both as the Arrangements & Education Chairman in this time. On the National scale he has served two years on the GCSAA Education Committee and is presently serving on the Certification and Public Relations Committee. Bruce is a past President of the Chicagoland GCSA. Besides serving on various committees, he has found time to write many articles both for our newsletter and our national magazine. Bruce and Roxane have two children, Blake age 5 and Claire who is 1.

Director's Column

Earthworms — Friend or Foe?

by Bruce R. Williams, CGCS
Bob O'Link Golf Club

Earthworms are present in most topsoils throughout the humid areas of the United States. They eat organic leaf litter and thatch. While there are 5 families and 1800 species of earthworms reported there are only a few genera which affect golf course turf. These include **Lumbricus terrestris**, **Allolobophora longa**, and **Allolobophora nocturna**. These species form permanent burrows (verticle) and do not burrow laterally unless food becomes scarce.

Over the years earthworms have been praised by turf managers for their role in thatch reduction. Many people think of them as nature's aerators. There is no question that the earthworm has had a positive impact on golf course turf. The only negative aspects reported, until recently, were the castings (feces) left behind on the finer maintained playing surfaces (greens & tees). It is not my intention to dispute the beneficial effects of earthworms.

In the 1980's we have seen great improvements in the playing conditions of fairways. Most noticeably there has been a reduction in the height of cut on bentgrass fairways. Triplex mowing has enabled us to reduce the height of cut from the 3/4 - 1 inch range to the 1/2 - 5/8 inch range. It may only be coincidental but earthworm activity is much more noticeable under the reduced height of cut. The elimination of Bandane, Chlor-dane, and arsenicals in the late 1970's may also have contributed to increases in the earthworm population.

One acre can contain as many as 3,000,000 earthworms which weigh 1,800 pounds and can produce 25 tons of casts each year. In the Spring, when soil temperatures are in the 40-50 F range, earthworms are most active and it is not common to see as many as 20 casts per square foot. These casts are an attempt to clean out tunnels and are composed of soil and feces.

Earthworms, like canadian geese, pose no problem with their mere existence but rather by their byproducts. Casts are often so prevalent that fairways look as though they were recently aerated. This can have a negative effect on playability. The castings begin to take their toll on mowing equipment and can adversely affect reels and bedknives. Aesthetics are reduced on this fine turf.

The dilemma we face is whether the beneficial factors of earthworms outweigh the negative factors. This must be judged by the individual Golf Course Superintendent. There is no clear-cut point of economic threshold. If you have a problem there is very little information regarding control and no materials labeled specifically for earthworm control.

While treating for other pests we have found that some chemicals will reduce the earthworm population. Benomyl seems to act as an irritant and sends earthworms deeper into the soil without killing them. The casts are eliminated with this material and we may still derive the beneficial effects. Turcam, Orthene, and carbaryl will reduce the population. The synthetic pyrethrins will bring earthworms to the surface for collection.

At present there aren't any noticeable side effects from the control of earthworms on fairways. Mechanical aeration has improved and may compensate. Thatch is being managed with clipping removal but we might need vertical mowing if a problem develops in the future.