point where the big mowers, because of their weight are phasing out and I would bet that in 5 years, many of the private clubs will be cutting with walk behind greensmowers again.

To sum this up, I guess that while everything changes, nothing under the sun is new, but it has

been very interesting.

FERTILIZER AND PESTICIDE TRENDS—1984 AND BEYOND

By Tom Wentz Regional Manager O. M. Scott and Sons

Golf course fertilizer and pesticide usage in the 1980's have changed dramatically from the usage patterns of the early to mid '70's. These changes, I believe, have developed as a result of the demand for faster greens, budget constraints, reduced acreages, new disease specific fungicides, new diseases, and a higher degree of turf manicuring. This list can go on and on. The patterns that I have observed throughout the 10 state midwest region are listed below: I. Fertilizer Usage

— Reduced nitrogen usage on greens. Thew amounts of N used per 1000 per year vary from one golf couse to another, but there has been a reduction overall in the

total N used per season.

— Trend to spoon feeding low amounts of N each week. Incorporation into fungicide sprays is becoming a regular practice.

 Coupled with the low N, there has been an upsurge in iron and minor nutrient supplement treat-

ments.

— Trend toward higher K feeding on greens. Many of the soil test reports around the midwest indicate the soil low on K. The use of more sand for topdressing has created a need to be aware of the plant nutritional requirements.

— The greatest reason for reduced fertilizer usage on fairways has been the reduction in fairway acreage. Contour mowing and the trend toward narrower fairways has taken the average 50 acre — 18 hole fairway of the past to the current 20-25 acre fairway.

— Greater trend to supplemental treatments of higher K fertilizer for fairways or use of a 1:2, N:K fertilizer ratio product.

— I have observed reduction in total N applied on Triplex mowed fairways. Although, where clippings are removed, a good fertility program is needed.

Overall, fertilizer usage has dropped due to reduced acreage, and the demand for faster greens. II. Pesticide Usage

A. Fungicides

The newer fungicides today are not as broad spectrum but usually give longer periods of disease control. Superintendents have realized the importance of alternating fungicides in their preventative disease programs. The newer disease specific fungicides will require this to continue.

— Observed greater fungicide usage on fairways. Possibly with the reduced fairway acreage, more budgets can handle expanded usage for fairway treatment. I believe there is more pressure on the superintendent to keep up with competing clubs and golfer demand for greater manicuring.

— The varied type "patch" diseases, Fusariums, Antracnose, resistant strains of Dollarspot have created a need to understand fungicide limitations, re-think cultural practices and develop better preventative treatment programs.

B. Insecticides

— The long term Residual Isofenphos Insecticide has been a welcome relief to those superintendents who have had to deal with grub problems. Similar residual type insecticides will be arriving on the market in the near future.

C. Herbicides

— The use of PGR's (Plant Growth Regulators) has been on the increase. This year I saw Embark being used for Poa seed head suppression. Look for the development of improved PGR's that open up greater use in the golf course turf market.

The requirements for the golf course superintendent to keep abreast of changes within the golf course management field is even greater today than in the past. We are living in a constantly changing world, an information society where the need to "Keep Up" is even more important. Trends will

change in the future as they have done in the past, and how you react and respond to these changes will determine your future success.



Hanley's Donates To WGCSA Scholarship and Research Fund

Neil Ricter, general manager of Hanley Implement in Sun Prairie, presented a check for \$500 to the WGCSA at the November meeting at Tumblebrook Country Club. The gift will be added to the WGCSA Scholarship and Research Fund.

Speaking on behalf of the officers and directors of Hanleys, Ricter expressed their sincere feeling for the need for investment in research that will help deal with cultural problems as they arise, as well as the basic kind of research necessary prior to field application. He also feels that any business is only as good as the people in it and applauds the WGCSA scholarship program.

Sincere thanks to Hanley Implement from everyone in the WGCSA.