## ROLE OF USGA IN MICHIGAN TURFGRASS DEVELOPMENT

Alexander M. Radko, National Director, USGA Green Section Far Hills, NJ

Golf introduced into U.S. late 1800's.

First organized Golf Club - St. Andrew's, Yonkers, New York - Year 1888.

Sport caught on - new course building flourished. Land plentiful and demand high. Therefore, anyone with knowledge of golf was sought out to build courses.

Building courses then was easy - taking care of them was not. There was nobody trained in the art and science of greenkeeping and no scientists trained in golf turfgrass culture.

Club officials looked to neighboring farmers to mow the turf with whatever equipment the farmer owned. Most of it was field crop farm equipment and was rather crude for mowing turf - but it was a beginning.

In 1894, the United States Golf Association was formed.

Howard F. Whitney, USGA President in 1921, gave this account that summed up efforts by golf for scientific assistance with turf problems as follows:

Dr. W. S. Harban was first golfer to seek aid from the United States Department of Agriculture with putting green turf problems in 1906.

In 1908, C. B. MacDonald, Golf Course Architect, sought aid with serious problems encountered in building the national Links, Southampton, Long Island, and applied and received help from the U.S. Department of Agriculture. USDA Scientists sympathized with golf's needs but no funds were available; however, with cooperation from many golf clubs some work was started and Dr. C. V. Piper and Dr. R. A. Oakley, USDA Scientists, began to publish on golf related turfgrass trials at Arlington, Virginia Research Station.

In 1915, the Executive Committee of the USGA called upon the Honorable David F. Houston, Secretary of Agriculture, to request additional help in solving problems in greenkeeping. As a result of this appeal, turf experiments were begun at Arlington, Virginia, the site of the U.S. Department of Agriculture's Experiment Station.

By 1920, some 2,000 golf clubs existed in the United States.

In 1920, E. J. Marshall, Green Committee Chairman of Inverness Club in Toledo, Ohio, conceived the idea of forming a Green Section as the agronomic arm of the USGA to work in cooperation with the USDA on turfgrass problems. Dr. Piper agreed to serve as Chairman of the Green Section together with his position as Chairman of the Agronomy Department of the USDA. Dr. Piper was a rarity of his time — an American Scientist with knowledge of turf. He wrote a book, "Turf for Golf Courses" which was published in 1917.

From 1921 through 1953, this joint research relationship between the USDA and the USGA existed. In the early years the Green Section worked with clubs,

greenkeepers and district golf associations on weed control, fertilizer tests, soils, grass selections for greens, grass mixtures for fairways, etc. The Detroit District Golf Association figured prominently in those tests. During this time the USDA and the USGA generated interest and did much to advance the turfgrass industry through its golf turf oriented research. There was critical need for it and the USGA responded with necessary funding.

After World War II, Dr. Fred V. Grau became Director of the Green Section. He recognized the need for raising funds for research, for more University level research funding, also for a cooperative effort by all concerned to avoid duplication of funds and to keep everyone informed about the other's research.

In 1947 Dr. Grau played an important role in getting the turfgrass industry recognized by the American Society of Agronomy.

In 1947, a three-year research fellowship was established at Michigan State University for \$1500 per year through the USGA Green Section with contributions from the Detroit District Golf Association, the Midwest Regional Turfgrass Foundation and the USGA Green Section. The objectives were:

Fairway Management as related to playing condition Fertilizer - Soil Properties and Management - Mowing Practices -Suitability of Various Species and Strains.

Dr. James Tyson was project leader. He was ably assisted by B. H. Grigsby, John Vaughn, E. A. Andrews, Ray Hudson, Walter Moropsky and W. H. Daniel. About 1950 the name of Ken Payne cropped up as a man to watch as a future leader also.

Other ongoing projects at the time were:

Times and rates of seeding turf - comparison of seeding mixture and individual varieties in establishing turf. - Carter Harrison

Chemical control of weeds - Crabgrass Control. - B. H. Grigsby

Disease control studies. - John Vaughn and E. A. Andrews

Insect control. - Ray Hudson and Walter Moropsky

Fertilizer on growth of grasses, particularly effect of various levels of N, P, K, on Washington, Arlington, Congressional and Cohansey Bents. - James Tyson.

Soil relation to growth of Bents, Bluegrass and Red Fescue.

Studies with Farm Crops Department to compare relative values of different strains and varieties for producing putting green and fairway turf.

Studies with Michigan State Highway Research on highway shoulders and resultant effect of treatments on stability.

Studies on soil moisture, its measurement and control.

From 1966 through 1971 - Grant placed with Dr. Beard on a Poa annua investigations project. \$27,000 of USGA funds was invested in this work. It resulted in publication of Michigan State University Research Report 352 entitled Annual Bluegrass - Description Adaption, Culture and Control by Dr. Beard, Dr. Rieke, Dr. Turgeon and Dr. Vargas. This project also helped train another leader in the field - Dr. Robert Shearman.

In 1972, four golf organizations supported publication of the turfgrass bibliography — they were the Michigan Golf Association, the Michigan Seniors Golf Association, the O. J. Noer Research Foundation and the United States Golf Association Research Fund. Dr. Beard, with his wife Harriet and Dr. David Martin received the Oberly Award for bibliography in the agricultural sciences sponsored by the Association of College and Research Libraries of the American Library Association. The Oberly Award has been given only 25 times since its inception in 1925.

From 1972 through 1974, the USGA supported another major project on the causes and prevention of turfgrass wear. \$13,000 of USGA funds in this project.

In 1979, the project "Chemical Protection of Cool Season Turfgrasses to Water Stress" was initiated with Dr. John Kaufmann as project leader. USGA funding \$5,000.

Golf has, and continues to contribute enormously to the development of the turfgrass industry. The framework for cooperation with Universities is solidly established. Although golf is about 100 years old in this country, it's only been 60 years since the scientific approach to golf turfgrass research was begun. Michigan has contributed much to this development. We've come a long way in that time!