

December 1, 1984

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SGA

USGA GREEN SECTION

1984 SUMMARY OF RESEARCH REPORTS

THE UNIVERSITY OF GEORGIA - Dr. Glenn W. Burton, Principal Investigator

1984 Grant - \$5000 (ongoing since 1956)

The main objective in this bermudagrass breeding project is the development of more winter hardy triploid hybrids. One way to achieve this is to cross our known winter hardy tetraploid selections collected in Berlin, Germany and the most winter hardy Cynodon transvaalensis that can be found. Efforts to obtain additional C. transvaalensis from South Africa have failed. This fact means we have only 10 different clones of C. transvaalensis that Dr. Burton increased and sent specimens to Michigan State and Rutgers in 1983. One clone survived the Michigan winter and several survived the New Jersey winter. The New Jersey information was received early enough in 1984 to permit a number of crosses with the winter hardy Berlin bermudas this year. However, because these crosses are difficult to make, results will not be known until December, 1984 or early in 1985.

The triploid bermudagrass Midiron is reported to be more winter hardy than any of the Tifton triploids, but has a more "open" growth habit. Midiron dormant sprigs have been irradiated and 67 mutants selected. These were field planted last spring and evaluated this past summer. Preliminary observations suggest that some of the mutants will make better quality turf than Midiron. These will eventually be winter tested and it is hoped some will have retained the greater winter hardiness of Midiron.

MICHIGAN STATE UNIVERSITY - Dr. R. Chapin & Peter LePoer, Principle Investigators

Turfgrass Information File

1984 Grant - \$96,326 (started April, 1984)

Michigan State University will acquire, maintain, and preserve all appropriate printed and processed materials reporting on research related to turfgrass growth, development, and maintenance. Developing the collection is part of the responsibility of the project manager, Peter LePoer, who was hired

on July 1, 1984. The library has purchased an Alpha Microsystems computer, and the STAR information retrieval software. The system was installed on August 8 and is now up and running.

A record format is now being designed which will best suit the needs of users of the file, and also allow records to be added to the National Agricultural Library's AGRICOLA database. The project manager, with the library's expert on bibliographic formats, traveled to the NAL on October 29 to work out the details of this cooperative venture.

A full time clerk was hired in early September with the primary duty being data entry into the system. A graduate assistant was hired to abstract and index all monographs and separate reports of the O. J. Noer Collection for inclusion into the system. Technical journals and newsletters will also be regularly reviewed.

Starting in September and on a monthly basis thereafter, the files and bibliographies of the NAL, the Commonwealth Bureau, FAO, Biological abstracts and others will be reviewed and/or computer searched for omissions and for other titles that do not usually report on turfgrass research. Articles so identified will be added to the file.

The MSU Library will provide loans and/or appropriate photocopies to all users of the turfgrass library collections. The Library will develop procedures to respond to requests for loans or copies within 48 hours and will provide this information to potential users on how to access the collection on-line or via U S Mails. It will be possible to print bibliographies directly from the STAR database on particular subjects or a comprehensive listing of the contents of the STAR database will also be available.

Overall, substantial progress has been made in establishing the Turfgrass Information File since getting underway in April, 1984.

MICHIGAN STATE UNIVERSITY - Dr. Paul Rieke, Principal Investigator

Soil Compaction

1984 Grant - \$3000 (second year of three year study)

This study, completing its second year of support, is investigating the effects of shatter core aerifying, a new and promising technique to overcome soil compaction. Particular emphasis will be placed on its use with putting green soils. A computerized tomography (CT) scanner will be used to determine soil fracturing responses. A study of water infiltration rates, water conservation effects and rooting depth is included as well as the overall affect on turfgrass quality when shatter core technique is used.