## THE GREEN SECTION RESEARCH PROGRAM

#### **By MARVIN H. FERGUSON**

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How do we stand now with respect to turf research efforts? In 1953 the Green Section embarked upon a plan of operation that emphasized direct service to USGA member clubs. There were many who feared that the research interests of the Green Section would suffer when direct service became the major function of Green Section staff members. Those who held misgivings had come to appreciate the research efforts of the Green Section at Beltsville and at stations where cooperative work was in progress. There is much evidence to show that in the past thirty years the Green Section contributed greatly to the improvement of turf on golf courses through its research.

In 1955—just two years after the new plan was inaugurated—the Green Section is sponsoring the most extensive research program in its history. This research is not being done by Green Section staff members. It is being done by state institutions which have accepted grants-in-aid from the Green Section for the support of various investigations aimed at the solution of specific turf management problems. All of the money set aside for research is spent in direct support of those investigations. In 1955 the Green Section proposes to distribute a total of \$24,980 in the form of grants-in-aid.

The establishment of Regional Offices in support of the direct service plan has helped Green Section turf research efforts. Regional Directors are able to be better informed concerning the major problems in various parts of the country. In turn the Regional Directors are able to maintain closer liaison with experiment stations which are the source of new developments. Results of research can be evaluated under conditions more nearly like those which

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prevail on the golf courses in the various regions.

Turfgrass investigations, supported by Green Section grants-in-aid, really are a small part of the total research effort in the field of turf management. This is as it should be. Golf courses use only a small portion of the turf in the nation. Management of all turf rests upon certain principles, however, so that in reality all fundamental investigations provide useful information for all types of turf. With this concept in mind, the Green Section has sought to use its funds to encourage studies that would complement the research being done at experiment stations, fill gaps in our knowledge, and studies which would provide answers to problems peculiar to golf course turf.

#### Sources of Funds

The Research and Education Fund which has recently been incorporated has provided a great deal of the money for support of research. This fund has been replenished in a gratifying manner by the many individuals and firms who wish to have a hand in the furtherance of studies in turf management.

National Golf Day has contributed handsomely to turf research. From proceeds of National Golf Day, 1954, the Directors of National Golf Fund, Inc. allocated \$10,700 for distribution by the Green Section. National Golf Day is sponsored by Life Magazine and the Professional Golfers' Association in cooperation with the USGA. Proceeds are used for various worthy causes related to golf. This year National Golf Day will be June 4. The two current Open Champions will match scores with thousands of golfers who will play at their home courses. Ed Furgol is Open Champion and Mrs. Babe Zaharias is Women's Open Champion.

Still another source of money for research has been a portion of the Regional Turf Service fees. Thus subscribers to Regional Turf Service not only received the benefits of direct service, but they contributed toward the development of additional information. From now on the USGA will make allocations to research from general funds rather than specifically from Regional Turf Service fees.

The accompanying lists of research projects showing studies supported in 1954 and those proposed for 1955 indicate the kind and scope of the investigations sponsored by the Green Section.

Results of some of these studies are already becoming available. As the fund of information grows, it will be distributed to USGA members through the pages of the Journal and to Regional Turf Service subscribers through direct contacts and through the Regional Turfletters.

Your Green Section is sponsoring more research than ever before and through its Regional Turf Service it is well equipped to get the newly developed information into practice in a very short time.

## USGA Research Grants — 1954

7	Amount	Duration	Burnard of Court
Institution	of Grant		Purpose of Grant
Colorado A. & M.	-	1 yr.	Establishment of turfgrass plots.
Cornell		2 yrs.	Studies of seed mixtures.
Texas A. & M	. 2,000	1 yr.	Partial support of fellowship concerned with a study of physical properties of putting green soils.
Rutgers	2,000	1 yr.	Support of fellowship concerned with thatch formation and control studies.
Rutgers	_ 1,000	1 yr.	Support of general turf research pro- gram.
Kansas State College	. 600	2 yrs.	Evaluation of grasses for arid regions.
U. of California (Davis)	. 1,000	2 yrs.	Irrigation studies.
U. of California (Davis)	250	1 yr.	Merion bluegrass seed production studies.
U. of California (Los Angeles)	. 300	1 yr.	Soil amendment studies.
Purdue University	_ 1,000	2 yrs.	Bluegrass selection and study for dis- ease resistance.
U. of Illinois	. 1,000	2 yrs.	Fundamental physiological and life his- tory studies of <i>Poa annua</i> .
Ga. Coastal Plain Exp. Sta	5,000	1 yr.	General support of turf research pro- gram.
Oregon State College	_ 500	1 yr.	Development of seed supplies of Poa annua and Poa bulbosa.
Michigan State College		1 yr.	Combined with other funds.
Penn. State University	1,800	l yr.	Fellowship study.
Florida Agr. Exp. Sta	_ 500	1 yr.	Nitrogen studies on selected Bermuda- grass strains.
Rhode Island University		1 yr.	Zoysia-bluegrass compatibility studies.
Total, 1954	\$18,450		

Additionally, 20% of Regional Turf Service fees in southern California retained there for research.

# USGA Research Grants — 1955 (Proposed)

7	Amount	D	Duran of Court
	of Grant	Duration	Purpose of Grant
Colorado A. & M.		1 yr.	Scholarship and Plot Work.
Texas A. & M		1 yr.	Conclusion of soil study.
Rutgers	2,0001	1 yr.	Conclusion of thatch study.
Rutgers	1,080	1 yr.	General support of turf researc
Kansas State College	1,0001	1 yr.	Evaluation of species under a ditions.
U. of California (Davis)	$2,000^{2}$	1 yr.	Support of fellowship.
U. of California (Davis)	250	l yr.	Merion bluegrass seed producti
Purdue University	2,0001	l yr.	To be determined.
Ga. Coastal Plain Exp. Station	1,0001	l yr.	General support of turf work.
Ga. Coastal Plain Exp. Station	4,000	1 yr.	General support of turf work.
Rhode Island University	1,700	1 yr.	Poa annua control study (fello
Rhode Island University	1,350	1 yr.	General Support of Turf Resea
Penn. State University	1,800	1 yr.	Study of 2,4-D effects on grasse
U.S. Dept. of Agr. (Beltsville)	1,000	1 yr.	Herbicide screening.
Florida University	1,500	1 yr.	Nematode study (fellowship).
UCLA	300	1 yr.	Study of soil amendments.
Oklahoma A. & M.	500	1 yr.	Collection and evaluation of strains.
Western Washington Exp. Sta.			
(Puyallup)		1 yr.	To be determined.
Total, 1955\$	24,980		
Additionally, 20% of Regional Turin southern California retained ther	rf Service e for resea	fees rch.	
<sup>1</sup> National Golf Fund Allocation.			
2\$1,700 from National Golf Fund.			

300 from Research and Education Fund.

r.	Conclusion of thatch study.
r.	General support of turf research.
r.	Evaluation of species under arid con- ditions.
r.	Support of fellowship.
r. ·	Merion bluegrass seed production study.
r.	To be determined.
r.	General support of turf work.
r.	General support of turf work.
r <b>.</b>	Poa annua control study (fellowship).
r <b>.</b>	General Support of Turf Research.
r.	Study of 2,4-D effects on grasses.
r <b>.</b>	Herbicide screening.
r.	Nematode study (fellowship).
r.	Study of soil amendments.
	Collection and evaluation of bentgrass strains.

### MERION BLUEGRASS SEED PRODUCTION

Merion Bluegrass, a naturally occurring selection of common Kentucky bluegrass, has proved to be a superior turfgrass in many areas of the United States. Demand for Merion Bluegrass seed has created considerable interest in its production among some California seed growers and it is being tested and evaluated by the University of California as a seed crop for that state. The following is a progress report of these tests by the University of California, College of Agriculture, Department of Agronomy, Davis, Cal., dated January 11, 1955, supported in part by the United States Golf Association Green Section.

- D C. Sumner, Associate Specialist in Agronomy. Dr. R. M. Hagan, Associate Irrigationist in Irriga-
- tion.
- Dr. D. S. Mikkelsen, Assistant Agronomist in Aaronomy.

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THERE HAS BEEN no experimental work L to determine the best soil types for maximum seed production of Merion. A number of trial plantings by farmers in various areas of the lower Sacramento Valley suggest that the more easily worked soils are to be preferred. The possibilities of production on clay soils have not been adequately explored. Soils that are in poor physical condition and have low water penetration capabilities should be avoided.

#### Growth Habits

Merion Bluegrass is a perennial sodforming grass that spreads by underground