

NEW JERSEY AGRICULTURAL EXPERIMENT STATION

Rutgers University  
New Brunswick, New Jersey

USGA Green Section Cooperation - Research Grant, in cooperation with U. S.  
Department of Agriculture  
Contributed through

USDA	\$1,200	
USGA (in Offset)	1,200	
		<u>\$2,400</u>

Project Workers

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USGA Green Section Project

Study of turf species and strains and their management for fairway and lawn use. Includes mixtures of grasses.

Other Projects

Development and Evaluation of turf grasses

- A comparison study of five colonial bents and five red fescues
- The use of companion grasses in turf
- A test of bentgrasses for putting green turf
- Performance of Z-52 and U-3 bermuda in combination with cool season grasses
- A comparison of 4 Kentucky bluegrass strains
- A rate of seeding study with New Jersey #1 grass seed mixture

Turf Maintenance

- Cooperative turf fungicide trials
- Rates of N, P, and K on putting green turf
- The effect of time of fertilization of bent turf (1/4-inch)
- The effect of time of fertilization on turf seeded with New Jersey #1 (mowed at 7/8-inch and 1-1/2-inches)
- The effect of several rates of N, P, and K on turf seeded to New Jersey #1 (mowed at 7/8-inch and 1-1/2-inches)
- The effects of frequency of topdressing
- The effects of frequency of aerifying on mixed turf mowed at 7/8-inch
- Time of cultivation of bent turf (1/4-inch) with different levels of nitrogen, phosphorus
- Cultivation of mixed turf (7/8-inch) with different levels of nitrogen, phosphorus, and potash
- Cultivation of mixed fairway turf in conjunction with different levels of fertilizer, lime, and gypsum

Rutgers offered two types of curriculums in turf maintenance.

Short Course - 10 weeks - Turf management, weed identification, weed control, identification of grasses, diseases, insects, etc.

Four-year Regular Course - B. Sc. degree

Crabgrass Control Tours - September 22, 1948

September 22, 1949

Annual Turf Field Day

700 different plots for crabgrass control (sodium arsenite, ammonium sulfate, phenyl mercury compounds)

#### Publications, Reprints and Reports

- "Planting and Caring for the Lawn." Gilbert H. Ahlgren and Ralph E. Engel. Bulletin 724, March 1949.
- Progress Report on "Renovation, Improvement and Evaluation of Turf on Lawns, Parks, Athletic Fields, Fairways and Similar Areas and Renovation Study." Ralph E. Engel.
- "Nitrogen Absorption and Aeration." John W. Shive and Luther B. Arrington. Reprint from New Jersey Agriculture, September and October 1934.
- "Spring Care of Established Lawns." Gilbert H. Ahlgren and Ralph E. Engel. Circular 524, 1949.
- "Summer Care of the Lawn." Gilbert H. Ahlgren and Ralph E. Engel. Circular 525, 1949.
- "Making a New Lawn." Ralph E. Engel and Gilbert H. Ahlgren. Circular 531, 1949.
- "Chemicals for Crabgrass Control." Ralph E. Engel and Dale E. Wolf. Proceedings of the Northeast Weed Conference, January 1949.
- "Results of Testing Chemicals for Crabgrass Control in 1949." Ralph E. Engel and Dale E. Wolf. Proceedings of the Northeast Weed Conference, January, 1950.
- "Killing Turf Weeds with Chemicals." Dale E. Wolf and Ralph E. Engel. Circular 513, 1949.
- "History of Turf at the New Jersey Experiment Station." Ralph E. Engel and E. E. Evaul. Greenkeepers Reporter. Vol. 16, January-February 1948.
- "Results of 1948 Turf Disease Control Studies in New Jersey." Spencer H. Davis and Ralph E. Engel. Greenkeepers Reporter, Vol. 17, May-June, 1949.
- "New Greens Aerator." Gilbert H. Ahlgren. Greenkeepers Reporter.
- "Your Lawn." GROUND FOR LIVING. Gilbert H. Ahlgren. Rutgers University Press, March 1946.
- "Twenty-one Problems to Trouble the Greenkeepers." Gilbert H. Ahlgren. Golfdom, April 1946.
- "Influence of Thiamin Additions on Germination and Growth of Certain Grasses and of White Clover." Gilbert H. Ahlgren. Bulletin 692, 1942.
- "Destroying Lawn Weeds with 2, 4-D." G. H. Ahlgren and H. R. Cox. Bulletin 725, 1946.
- "Sabadilla and DDT to Control the Hairy Chinch Bug." R. S. Filmer and Charles L. Smith. Journal Economic Entomology 39: 309-313. 1946.

Publications, Reprints and Reports (Continued)

- "Studies on the Penetration of Nutrient Elements and Their Seasonal Fluctuations in Grassland Soil as Measured by Rapid Chemical Tests." Thomas C. Longnecker. Master's thesis, Rutgers University, 1937.
- "Rates of Penetration for Lime in Soils Under Permanent Grass." T. C. Longnecker and H. B. Sprague. *Soil Science* 50: 277-288. 1940.
- "Root Development of Perennial Grasses and Its Relation to Soil Conditions." H. B. Sprague. *Soil Science* 36: 189-209. 1933.
- "Utilization of Nutrients by Colonial Bent (*Agrostis tenuis*) and Kentucky Bluegrass (*Poa pratensis*). H. B. Sprague. *Bulletin* 570, 1934.
- "Annual Bluegrass (*Poa annua* L.)." H. B. Sprague and G. W. Burton. *Bulletin* 630. 1937.
- "Experiments with Turf Grasses in New Jersey." H. B. Sprague and E. E. Evaul. *Bulletin* 497, 1930.
- "The Effect of Various Sources of Organic Matter on the Properties of Soils as Determined by Physical Measurements and Plant Growth." H. B. Sprague and J. F. Marrero. *Soil Science* 32: 35-49. 1930.
- "Further Studies on the Value of Various Types of Organic Matter for Improving the Physical Condition of Soils for Plant Growth." H. B. Sprague and J. F. Marrero. *Soil Science* 34: 197-208. 1932.