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Special Instruction for Greenkeepers at Pennsylvania State College

Editor's Note: This is another article in the continuing series that appeared in early editions of The Bulletin of the United States Golf Association Green Section. This month's article appeared in Vol. 10, No. 6, June 1930. This article continues in describing the early classes for greenkeepers held at various colleges.

H. W. Thurston, Jr.
 Pennsylvania State College
 State College, Pa.



First class of greenkeepers at Pennsylvania State College, 1929.

The first short course of instruction for greenkeepers given in Pennsylvania was presented in 1929 by the School of Agriculture and the Agricultural Experiment Station of the Pennsylvania State College, located at State College, Pa. In that year the course lasted only two days, but was attended by over 70 students, representing 46 golf clubs. So marked was the success of this experiment that the following year a 4-week course was given, embracing lectures,

demonstrations, and laboratory work in various subjects fundamental to the handling of fine turf grasses. This was followed by a one-week conference. The attendance at the 4-weeks course was 24, and at the conference 65. Funds for initiating research on turf production and placing such work on a permanent basis have become available through the instrumentality of a committee of greenkeepers who attended the first two courses and who

obtained subscriptions totaling \$800 for the purpose, and through the generosity of the United States Golf Association Green Section, which followed with a donation of \$1,000. It is expected that the Pennsylvania State College will provide funds to continue and expand the work.

In 1931 a 4-weeks course will be given February 2 to 27, concluding with a 3-days conference

(continued on page 14)



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Special Instruction for . . .

(continued from page 12)

February 25 to 27. Owing to limited facilities enrollment for the 4-weeks course will be limited to the first 30 applicants. Applications should be made to the Dean of the School of Agriculture, 111 Agricultural Building, State College, Pa. Applicants should give the name and address of the golf club or other organization to which they are attached. The instruction is intended for the benefit of greenkeepers, green-committee chairmen, superintendents of parks, and others interested in fine turf problems. No limit is placed on the number who may attend the 3-day conference to be held at the conclusion of the 4-weeks course.

The program for the 4-weeks course embraces the following subjects. They will be taught in the college class rooms and laboratories.

Soils and fertilizers.—Discussion and laboratory studies covering the origin, formation, and physical properties of soils; soil acidity; purchase, mixing, and use of fertilizers and lime.

Fine turf grasses.—Class room and laboratory work on classification, identification, and propagation of the important fine turf grasses; seed identification and analysis.

Weeds.—Characteristics, life habits, and control of common golf course weed; weed seed identification.

Insects.—Characteristics, life history, and control.

Diseases.—Nature and effects of plant diseases; their prevention and control. Application to turf problems will be emphasized.


Landscape problems.—Factors determining the location and layout of a golf course; a study of

golf course plans; grading problems; selection, identification, use, planting, and maintenance of trees and shrubs for golf courses and club house grounds.

Maintenance, drainage, and irrigation.—Detailed study of gasoline engines, their operation, repair, care, and adjustment. Location, design, and construction of drainage systems. Power requirements. Design and operation of spray irrigation systems. Pipe friction, pipe sizes, and pumps.

The conference, to be held from 1 p.m. February 25 to noon, February 27, is designed for greenkeepers, green-committee chairmen, and others whose desire to keep informed on the most recent developments in fine turf management. The major portion of the time will be given to round-

table discussions. The subjects to be considered will be essentially the same as those presented during the 4-weeks course. The speakers will be discussion leaders rather than lecturers. A prominent part of the program will be short talks by practical greenkeepers based on their own experience. The following program has been arranged for the conference (see schedule below):

The expenses to students attending the 4-weeks course need not exceed \$60, including both living expenses and college fee. The largest single item of expense is room and board, which will be from about \$9.50 to \$10.50 a week. The college fee is \$10. Other expenses would consist of laundry, stationery, and miscellaneous items. In some of the subjects books may be required. 

Wednesday, February 25
 Registration.
 Address of welcome *R.L. Watts, Dean of School of Agriculture*
 Report of the Pennsylvania Fine Turf
 Research Committee *Joseph Valentine*
 Progress report on research projects at State College . . . *C.O. Cromer, J.W. White, H.B. Musser, Dept. Agronomy*

Thursday, February 26
 Soil types; outstanding physical and chemical characteristics of the
 important soil groups of the state *A.L. Patrick, Dept. Agronomy*
 Organic matter; importance, functions, sources,
 and maintenance *F.G. Merkle, Dept. Agronomy*
 Drainage and irrigation *W.P. Miller, Drainage Engineering*
 Soil acidity; nature, cause, effect, and extent. *F.G. Merkle,
 Dept. Agronomy, and C.K. Hallowell, Extension Dept.*
 Effect of soil fertilization on the development of grasses, weeds,
 and fungous diseases.
 Nutritional requirements of plants; a discussion pointing out some of the
 important life processes of the plant, including the intake of nutrients
 and the manufacture of compounds *H.W. Popp, Dept. Botany*
 Nature and value of fertilizer materials; special consideration
 to be given to availability, const, and effect
 on soil reaction. *A.L. Patrick and J.W. White, Dept. Agronomy*

Friday, February 27
 Relation of soil treatment to fungous diseases. *John Monteith, Jr., U.S.G.A.
 Green Section*
 Relation of soil treatment to grasses and weeds. *J.W. White and
 A.L. Patrick, Dept. Agronomy*
 Summary of fertilizer studies; recommendations
 for fine turf grasses. *J.W. White, Dept. Agronomy*

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Paying For a College Education Tomorrow

Larry Tomaszewski
Equitable Life

Requires Careful Planning Today

Here are the cold, hard facts about increasing college costs according to the College Board in 1995:

- ✓ The price of attending a four-year public university in 1995-1996 has risen 54% from 1985-86.
- ✓ The average cost of one year at a public university or college in 1995-1996 was approximately \$7,000 for tuition and fees, room and board.
- ✓ The average private college costs more than \$15,000 annually, while elite colleges, such as Harvard, Princeton, Stanford and MIT, approach \$25,000.

Steep you say? They're nothing compared to the costs a newborn child will be paying by the time he or she reaches college. Based on a projected 7% annual increase in college costs, the four-year bill for a member of the class of 2016 could be more than \$95,000 at a public school and nearly \$260,000 at a private school. Of course, it is possible that tuition and cost increases will settle back down to a rate closer to the rate of inflation for the economy as a whole. But, either way, parents have a lot of savings to do.

Let time work for you

Despite these staggering figures, the cost of a college education should never sway you from sending your child to college. The key to reaching a

college savings goal is to systematically put away money, and then let compounding interest help you build that nest egg. How much you set aside is secondary to the frequency of your contributions. There are a variety of college-saving strategies that you can initiate today to help you meet your child's future college expenses. What's appropriate for you depends on how much money you need to accumulate, your child's age and your tolerance for risk.

Mutual funds. One of the most popular investment vehicles used for regular investing is the mutual fund. Mutual funds are attractive for systematic investing because many provide automatic investment features which allow you to have money deducted regularly from your checking account to purchase fund shares. Plus, any dividends and capital gains distributed from your mutual funds can be reinvested automatically. Also, even if you invest a small amount and own just a few shares, you benefit from the diversification of a broad portfolio of securities like investors with much more invested. Dollar cost averaging can be an ideal way to purchase mutual fund shares.

Cash-value life insurance. The funds invested in cash-value life insurance policies enable you to compound earnings on a tax-deferred basis. In addition to purchasing life insurance protection, you also can draw from the

policy's cash value in the form of a tax-free loan, making this a useful tool for college funding.

Growth investments. A comparison of total return on different asset classes suggest that, historically, stocks outpace inflation better than most other investments. As a result, stocks make good candidates to fulfill long-term growth objectives, such as funding a college education. Because stocks are subject to relatively wide price swings and lots of day-to-day variability, one strategy involves investing for growth in stocks during the earlier years of your investment plan and switching to less volatile securities, such as bonds, as your child approaches college age.

Tax-free investments. Another option is to place assets into tax-free investments and avoid taxes on the interest income altogether. For example, interest from most municipal bonds and municipal bonds mutual funds is federally tax-free. The result is, depending on your tax bracket, that the after-tax yield may be higher than the yield on other taxable investments, especially for individuals in higher marginal tax brackets. Income from municipal bonds and bond funds may be subject to state and local tax, as well as the Alternative Minimum Tax, even though no income is received by the investor.

(continued on page 24)



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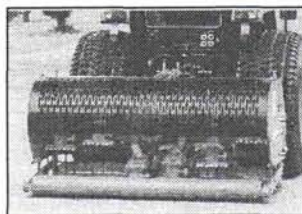
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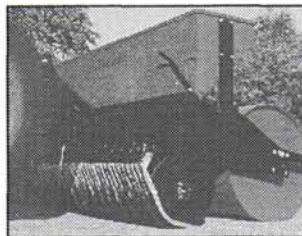
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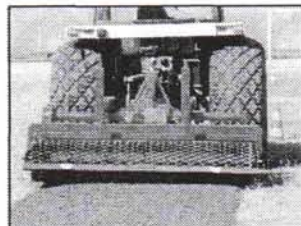
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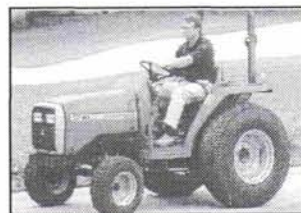
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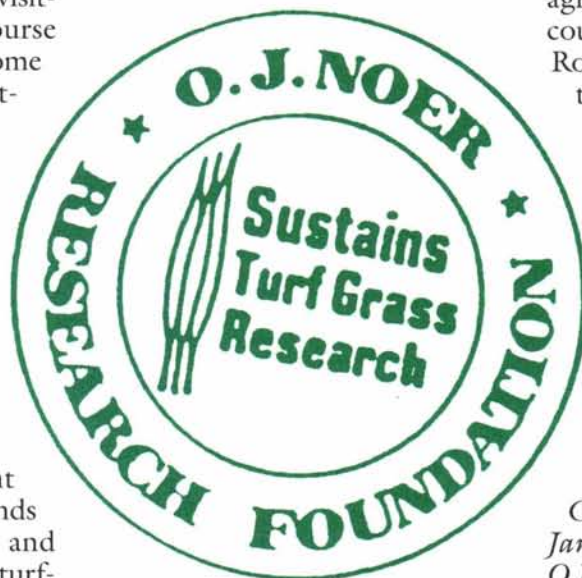
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O.J. Noer Research Foundation to Mark Its 40th Anniversary in Orlando

The O.J. Noer Research Foundation will mark its 40th anniversary during the Golf Course Superintendents Association of America's International Conference and Show in Orlando, FL. The Foundation was established to honor Mr. Noer, who was the leading turfgrass agronomist of his day. He was agronomist at the Milwaukee Sewerage Commission, producer of Milorganite fertilizer. During his long career, he traveled throughout North America, visiting with golf course superintendents on their home turf. In addition, he participated in many local, regional and national superintendents conferences and wrote numerous articles for popular and scientific publications.

Since its inception, the Foundation has supported some 54 turfgrass research projects at 19 universities and experiment stations. It also provides funds for the purchase of rare and important books related to turfgrasses to expand the O. J. Noer Memorial Collection housed at Michigan State University. Funds are generated by the income derived from the investment of contributions. Contributions come from individuals, superintendents associations, turf supply manufacturers and from Milorganite distributors and buyers who wish to "put something back" into the turfgrass industry. The Foundation is an all-volunteer organization in order to maximize funds available for research.

O.J. Noer was a 1926 graduate of the University of Wisconsin, with a degree in Soil Science. His many honors include having the GCSAA Conference in Houston (1960) dedicated to him. He received the USGA Green Section Award in 1963 and was a three-time winner of the GCSAA's Distinguished Service Award (1952, 1959, and 1960). His name was also listed in the Wisconsin State Golf Association Hall



of Fame in 1985. He was an honorary member of many local and regional superintendents associations in the United States and Canada.

Noer was one of the first to utilize visual aids in his presentations. His first slides predated color film, using black and white positive prints on glass and then hand tinting them. He also was a pioneer in using motion pictures to illustrate golf course opera-

tions, which were annual features at GCSAA conferences. His connections with turfgrass manufacturers and suppliers, coupled with Dr. Fred Grau's Green Section influence, enabled them to encourage many universities to establish turfgrass programs. His scientific prestige and ethical posture prompted his appointment as the only "commercial" member of the USGA Green Section Committee. Following his retirement from Milorganite, he served as agronomic advisor to renown golf course architects Dick Wilson and Robert Trent Jones. Most of all, though, he is remembered as friend of any golf course superintendent he ever met. 

For more information on Mr. Noer, The Foundation and the O.J. Noer Memorial Collection, check the World Wide Web at <http://www.li.msu.edu/tgif>.

*Contact:
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O.J. Noer Research Foundation
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Poa annua reptans — Creeping Bluegrass

Donald B. White
and Troy D. Carson
University of Minnesota

The first commercially available creeping bluegrass cultivar is now available for purchase. It has been named "DW-184." DW-184 is a dense, upright, dark green turf that holds its color even under extremely low nutrient levels. Once established, it produces very few flowers and for only a short time in the spring. DW-184 has also displayed good resistance to a variety of diseases.


Now that the initial goal of producing a high quality *Poa annua reptans* has been met, the Creeping Bluegrass Breeding Project continues to work on developing other new cultivars with still improved disease resistance, reduced flowering and winter hardiness.

Numerous creeping bluegrass trials continue to be evaluated. One of the selections in the trials has not flowered for two consecutive years. Another trial will be initiated this spring with a portion of a sand green constructed in 1997 to be seeded with new creeping bluegrass selections from the breeding program.

You can visit our web site for more information about the breeding project and DW-184. You may visit our web site at: <http://www.hort.agri.umn.edu/cbg/cbhome.htm>.

Creeping Bluegrass And Creeping Bentgrass Competition — Compatibility

The turfgrass population on golf course greens is continuously changing in adapting to the changing environmental conditions. Most greens have a mixed population of creeping bentgrass and *Poa annua*. Each species seems to perform better in particular niches and during different periods of the growing season. Since it seems inevitable that most greens will have a mixed population, we have initiated research to track population changes over time and to ascertain compatibility of creeping bluegrass and creeping bentgrass mixed seedings. One objective of this research is to identify population ratios that result in high quality turf.

The first planting was seeded on native soil, top-dressed with sand, in the fall of 1997 with mixtures consisting of two creeping bentgrasses and three creeping bluegrasses in ratios of 100:0, 75:25, 50:50, 25:75 and 0:100, by seed count. A second seeding, on a sand green, is planned for the spring of 1998 with two creeping bentgrasses and two creeping bluegrasses using the same ratios. 

Director's Column

(continued from page 4)

9. A uniform association logo for affiliate chapters was discussed and had merit. In order to compete as a top organization in the golf industry, we need to become as recognizable as possible.
10. Compensation survey and employer relations: Overall, the results of the 1998 survey show that superintendents are comfortable with their compensation. Chapters were asked to help define what information should be gathered for future surveys. Efforts are continuing to ensure that employers have a greater appreciation for golf course superintendents and their contributions to the game of golf.

The Golf Course Superintendents Association of America is much like our own MAGCS. It will only be as good as we the members want it to be. Make time to read the President's message, News Line, Brieffax and other publications sent out by GCSAA. A great deal of work by staff and volunteers go into producing these materials for our use. If you are really ambitious, sign up on a committee at chapter or national level. We have vehicles to make our profession even better than it already is. All it takes is fresh ideas, a positive attitude and a willingness to get involved. I will see a lot clearer this conference and show how much energy and time was put into the convention; I will also reflect as a whole on the GCSAA. That it is one of the finest associations in the world. Have a safe trip, and I will see you at the show. 