

# Survey '67:

## Turfgrass Management Training, Part 2

*From "brushup" short courses to two-year technical programs, from four-year undergraduate courses leading to B.S. degrees to research-oriented postgraduate studies, colleges around the country are stepping up their turfgrass management training programs in the face of heavy demand for graduates. On the following pages, and in coming issues, WTT surveys turfgrass programs and the specialists behind them. Next installment will appear in June.*

### The Pennsylvania State University, University Park, Pennsylvania



**Dr. J. M. Duich:** Opportunities have never been greater but do co-exist under both a craft and professional philosophy. Future is attractive if both student and industry each plot a course.

**Turf training** at The Pennsylvania State University is the responsibility of the Agronomy Department, with Dr. J. M. Duich as Turfgrass Project Leader.

**Programs offered** include four-year undergraduate work leading to B.S. degree, graduate study towards M.S. and Ph.D. degrees, and a Winter Course (four 8-week terms over a two-year period). Studies leading to a B.S. degree, agronomy major with turf option) allow students to be practically oriented. Major areas of activity within the Agronomy Department are crops, soils, and turfgrass. Subject area of more academic graduate work is primarily dictated by students' area of research, which is being conducted in breeding, nutrition, soil physics, and weed control.

**Begun in 1929** as a research program, Penn State offered its first undergraduate turf course in 1932, with formal recognition of a "turf major" for graduate and undergraduate study in 1949 and 1950, respectively. Currently, there are 13 undergraduates, with four M.S. candidates and two Ph.D. candidates. Winter Course has a current enrollment of 52 students working toward a Certificate in Turfgrass Management. Turf teaching is conducted by Dr.

Duich, Dr. D. V. Waddington, and A. T. Perkins, with Dr. H. Cole teaching turf pathology courses.

**Requirement** for entering B.S. program is a basic high school background plus college entrance exams. Grad students must have a favorable undergraduate average. Winter Course students are selected on basis of high school performance, experience, and recommendations by turf industry supervisors (practical turf experience is almost a necessity). Resident tuition for B.S. studies is \$130 per term; nonresidents pay \$260. Winter Course tuition per 8-week term is \$131.25 for residents and \$262.50 for nonresidents. Regular students enter the fall term, starting in mid-September; applications should be in by January or earlier. Winter Course starts mid-October; applications deadline is Aug. 1, or earlier for best consideration. Address inquiries to Pennsylvania State University, University Park, Pa. 16802, as follows: for Winter Course, Dr. F. C. Snyder, Director of Short Courses, Room 212 Armsby Building; for B.S. studies, Dean of Admissions; for graduate studies, Dean of Graduate School, 101 Willard Building.

### Colorado State University, Fort Collins, Colorado



**Dr. R. L. Foskett:** Graduates are employed at world-renowned golf courses and turf operations.

**Turf training** at Colorado State University comes under the Department of Horticulture, and is directed by Dr. R. L. Foskett.

**Programs offered** include four-year undergraduate and graduate work, with a complete renovation of curricula now in progress. Studies will be designed to include specialized course work in soils, irrigation, plant pathology, plant physiology, and landscape horticulture. Turfgrass management students work towards B.S. or M.S. degrees in horticulture, with a turf option. On-the-job training, encouraged now, will soon be made a requirement of the program.

**Begun in 1950**, Colorado's program has a present enrollment of 10 turf students.

Turf instruction is conducted by W. G. Macksam, Jess L. Fults, and Jack Altman.

**Requirement** for entering the program is admission to the University, which calls for favorable class rank in high school and college entrance exams. Colorado residents pay tuition of \$112 per quarter, or \$336 per academic year. Nonresident tuition is \$337 per quarter, or \$1,011 per year. Admission is normally to the fall quarter, which starts on Sept. 17 in 1967. Prospective students, however, are encouraged to submit applications six months in advance of registration. Requests for additional information should be directed to Dr. R. L. Foskett, Head, Department of Horticulture, Colorado State University, Fort Collins, Colo. 80521.

## University of California, Riverside, California

**Turf training** at the University of California, Riverside, comes under the Department of Agronomy, and is directed by Dr. Victor B. Youngner, Associate Professor of Agronomy.

**Programs offered** include four-year undergraduate, graduate, and evening courses conducted by the University Extension Service. Curricula in Riverside's School of Agriculture are currently being revised. "Students interested in turf management will take the Plant Science major (formerly Agricultural Science major), selecting electives which will be especially useful in this field of work," Youngner reports. "In addition, he must meet requirements in the Humanities, Social Sciences, Life Sciences, Physical Sciences, and Agriculture. While we have no vocational-type courses in the University of California, a conscientious

student can obtain excellent preparation for turf management as well as any agricultural occupation," Youngner says.

**Begun in 1950** with graduate training only offered, undergraduate studies were added in 1958. Formerly at UCLA, this program was transferred to Riverside in 1965. Instructors in all fields important to understanding of turf management contribute to the program.

**Requirement** for entering this program is a high school "B" average or transfer in good standing after two years at a junior college. Currently, about the top 12% of high school graduates are being accepted. There is no tuition for California residents. Nonresident tuition is \$267 per quarter. Requests for information can be sent to Dr. V. B. Youngner, Department of Agronomy, University of California, Riverside, Calif. 92502.



**Dr. Victor B. Youngner:** Opportunities excellent for well-trained man with basic courses in plant sciences, fewer for short course graduates.

## Kansas State University, Manhattan, Kansas



**Dr. Ray A. Keen:** Demand for graduates exceeds supply by factor of four or five.

**Turf training** at Kansas State University comes under the Department of Horticulture in the College of Agriculture, and is directed by Dr. Ray A. Keen, Professor of Horticulture.

**Programs offered** include four-year undergraduate and graduate work, plus a summer workshop course. Students work towards B.S., M.S., or Ph.D. degrees in agriculture. "There is no curriculum, as such, for turfgrass majors," according to Dr. Keen. "The curriculum is in the College of Agriculture, with majors in the various departments; turfgrass training is part of the ornamental horticulture section of the Department of Horticulture."

**Begun in 1954,** Kansas State's turf pro-

gram has a current enrollment of 17 students; there were four in the last graduating class. Turf management courses are taught by Dr. Keen, with supporting courses in the departments of Agronomy, Plant Pathology, Entomology, Botany, etc.

**Requirement** for entering the program is high school graduation. There is no tuition charge. Students are normally admitted to the fall session, which begins in September. KSU's next summer workshop in turf is tentatively scheduled for July 1968. Further information on the Kansas turfgrass management program can be obtained from Dr. Ray A. Keen, Professor of Horticulture, Kansas State University, Manhattan, Kans. 66502.

## University of Massachusetts, Amherst, Massachusetts

**Turf training** at the University of Massachusetts comes under the Department of Plant and Soil Sciences, and is directed by Dr. Joseph Troll, Associate Professor of Turf Management.

**Programs offered** include two-year training, four-year undergraduate studies, graduate programs leading to M.S. and Ph.D. degrees, and an eight-week Winter School for Turf Managers. Two-year program is administered by the University of Massachusetts' Stockbridge School of Agriculture and leads to an Associate degree in Plant and Soil Sciences, major in turf management. This course is designed to qualify students for openings in the field. Four-year course leads to a B.S. in Plant and Soil Sciences with a turf option. Emphasis is on basic sciences which will prepare students for positions in research, teaching, industry, etc. Winter School offers a certificate upon completion; courses cover plant science, agricultural engineering, entomology, and landscape operations.

**Begun in 1926** with the Winter School, described as the first course of its kind and the beginning of turf teaching in this country, Massachusetts added the four-year program in the early 1930's and the two-year program in 1946. Two year enrollment (which is limited by facilities) currently stands at 100. Winter School enrollment (also limited) is presently 30. Turf management courses are taught by Dr. Troll.

**Requirement** for entering these programs includes sound high school preparation and college entrance exams. Two- and four-year courses carry tuition of \$200 per year for residents, and \$600 for nonresidents. Winter School tuition is \$80, and this course will next convene in Jan. 1968, with Nov. 1, 1967, the application deadline. Regular students enter programs in September, with Mar. 1 the application deadline. Information requests can be directed to Dr. Joseph Troll, Department of Plant and Soil Sciences, University of Massachusetts, Amherst, Mass. 01002.



**Dr. Joseph Troll:** Opportunity is unlimited for graduates, especially for golf course and landscape work.

## New Mexico University, University Park, New Mexico



**Clarence E. Watson:** Field has become a profession of its own.

**Turf training** at New Mexico State University comes under the Department of Agronomy in the College of Agriculture and Home Economics, and is directed by Clarence E. Watson, Associate Professor of Agronomy.

**Program** at NMSU is a four-year study course which leads to a B.S. in agronomy as part of the Recreational Areas Management curriculum. This curriculum is designed to train students as golf course superintendents, park and grounds supervisors, researchers in plant and soil sciences, educators, etc. Courses provide background in agronomy, horticulture, biology, agricultural engineering, mathematics, chemistry, and communications.

**Begun in 1964**, there are currently seven

majors in the Recreational Areas Management curriculum, with the first student due to graduate this spring. A graduate program is also being started.

**Requirement** for admission to the program is normally a high school diploma from an accredited school, though an acceptable ACT test score may be used in lieu of diploma. Tuition per semester is \$168 for New Mexico residents and \$393 for nonresidents. Next starting date for courses is Sept. 15, 1967. Application should be made several weeks in advance. Further details can be obtained from Mr. Clarence E. Watson, or from Dr. A. A. Baltensperger, Head, Department of Agronomy, New Mexico State University, Las Cruces, N. Mex. 88001.

## The Ohio State University, Columbus, Ohio



**Dr. Robert W. Miller:** Many opportunities. Unable to supply needs of industry, private and public organizations, and others.

**Turf training** at The Ohio State University comes under the Department of Agronomy, and is directed by Dr. Robert W. Miller, Assistant Professor.

**Programs offered** include four-year undergraduate studies and advance work leading to M.S. and Ph.D. degrees. Degrees are in agronomy, specializing in turfgrass management. Students have a choice of programs in Agricultural Industries, Agriculture, or Agricultural Science. Intensive training in turf, soils, weed control, and other related agronomic fields, as well as in entomology, plant pathology, horticulture, and other sciences, is provided. Students must also complete work in such areas as English, humanities, social science, and communications. Dr. Miller says, of job training: "We have insisted that students in turfgrass management work on a golf course or some other turfgrass area. No college credit is earned, but the valuable experience is appreciated."

**Begun in 1961**, the Ohio program has a current enrollment of 17, and has produced 10 graduates with B.S. degrees and three with M.S. degrees. Courses in turf management are conducted by Dr. Miller, with other staff members.

**Requirement** for entering this program is high school graduation. Ohio residents pay \$150 per quarter for tuition; nonresidents pay an additional fee of \$186 per quarter. Students may enter at the start of any quarter. Undergrad applications are required by Aug. 1 for autumn quarter, Nov. 15 for winter quarter, Feb. 15 for spring quarter, and May 1 for summer quarter. Early applications are encouraged. Specific turf inquiries should be directed to Dr. Robert W. Miller, The Ohio State University, Department of Agronomy, 1827 Neil Ave., Columbus, Ohio 43210. General admissions information can be obtained from Admissions Office, The Ohio State University.

## University of California, Riverside, California



**Dr. John H. Madison:** Best opportunities are in park administration and planning. Many not willing to pay for top calibre student.

**Turf training** at the University of California, Davis, comes under the Department of Landscape Horticulture, and is directed by Assistant Professor John H. Madison.

**Programs offered** include four-year undergraduate and graduate studies. Students may obtain a B.S. degree in plant science with a major in landscape horticulture, floriculture, or park administration; M.S. in horticulture; or Ph.D. in botany, plant physiology, soil science, or genetics. "Majors emphasize sound preparation in plant science," according to Madison. "In the senior year, a student's entire background is brought to focus intensively on problems of turf culture. This may be supplemented with summer work in the field. We expect all of our graduates to have a good background in turf, and sooner or later most of them use it. Students especially inter-

ested in turf can be given individual consideration—for example, by working on the turf research program."

**Begun in 1953**, the Davis program has a current undergraduate enrollment of 18, with 13 M.S. candidates and two Ph.D. candidates. Courses in turf culture are taught by Dr. Madison, with numerous staff members teaching allied subjects.

**Requirement** for entering this program is the equivalent to graduation in top 12% of accredited high school class. Nonresident tuition plus fees comes to \$348.50 per quarter, while California residents pay \$81.50 in fees. Starting date for '67 is Sept. 25, with application deadline past; '68 starting date is Sept. 23. Program inquiries should be directed to Chairman, Department of Landscape Horticulture, University of California, Davis, Calif. 95616.