

11 States, Canada Represented at Penn State Field Day

By H. B. MUSSER

Pennsylvania State University played host in September at its annual field day to 200 supts., municipal parks supervisors, turfgrass equipment and supply dealers and others interested in turfgrass production and management. They came from 11 states and Canada.

Those attending saw field plot trials of 110 strains and varieties of creeping bentgrass maintained under putting green conditions. Testing to determine the value of creeping bent strains and a breeding program to produce superior types has been underway in Pennsylvania for almost 20 years. As a result of this program, the Experiment Station has released the Pennlu variety which is a single plant selection vegetatively propagated, and the Penncross variety, a seed propagated hybrid of 3 selected parents.

Visitors to the field day also saw the trials of 56 types and mixtures of grasses used primarily for lawns and general turf areas. In this series of tests they had an opportunity to see and compare the quality of the new creeping red fescue variety, Pennlawn, with other creeping red fescues and grasses adapted to general turf production. Penn State developed the Pennlawn fescue.

Fertilizer tests of nitrogen sources on Kentucky bluegrass, red fescue, and bentgrass were popular objects of comment and discussion. The residual effects of the new urea-formaldehyde fertilizers compared with other nitrogen sources were of particular interest. These plots were closely studied by many supts. who recognize the value of fertilizer materials carrying nitrogen in slowly available form.

Examine Crabgrass Control

The group saw tests of chemicals for crabgrass control. Two series of 468 individually treated plots compared the effectiveness of both pre-emergent and contact materials applied at different rates and periods. A feature of this experiment that attracted attention was a late series of chemical treatments to determine their effect on reducing seed production and viability.

Members of the Station staff described the layout of a new series of thatch control experiments on a 12,000 sq. ft. badly thatched area of creeping bentgrass maintained at putting green height. First treatments had been made about three weeks prior to the meeting and consisted of various combinations of aerating, verticutting, liming, fertilizing and top dressing.



H. B. Musser (left), in charge of Penn State's turf research program, describes strain test during annual field day.

The control of turfgrass diseases also was discussed in detail. An area of 16,000 sq. ft. of Merion Kentucky bluegrass is maintained for study of rust susceptibility and control. Excellent progress was made in the 1955 season when a severe rust infection was obtained by inoculating the area with a water suspension of rust spores. During the 1956 season, however, rust infection was not sufficient to permit control studies. The Merion turf was clean and of outstanding quality at the time of the meeting when rust infection should have been severe.

Several research institutions, including the Carnegie Institution of Washington and the Pennsylvania Agricultural Experiment Station, have breeding programs beamed toward the development of better strains of bluegrasses. Visitors at the meeting saw pilot tests of 44 new hybrids and selections of several species of bluegrasses. These showed very wide variations in turf quality. Some are promising enough to justify more detailed and critical tests of their potentialities for turf use.

The group also inspected the various breeding nurseries. These include a source nursery containing 140 strains of creeping bentgrass; two 600 and 2000 plant nurseries, respectively, of systematically arranged parent plants of the Pennlawn creeping red fescue for production of breeders seed; and a 6000 plant nursery for study of off-types in Merion Kentucky bluegrass and production of breeders seed of this variety.

Turf Renovation Program

Prior to the close of the meeting, the turf renovation program on Beaver Field Stadium was inspected. The football gridiron had been under heavy use for lacrosse, soccer and other athletic activities throughout the spring and early summer and the turf had been seriously damaged. The renovation program consisted of removal of the old sod from a strip 25 yards wide through the center of the field from goal line to goal line, and replacement with nursery sod grown for this purpose.

Prior to sodding, the soil had been thoroughly worked to break compaction and had been well fertilized. The operation was completed the first week in July and by the time of the meeting it was well knit and had developed a dense, vigorous turf. Those at the conference were impressed that a major repair job of this extent could be done at the relatively low cost involved in growing and transferring the sod.

The diversity of interests among those attending, the number present, and the very serious interest in more technical phases of turfgrass management was very gratifying to those responsible for the turfgrass research and extension program at Penn State. It is further evidence of the need for sound information in this field and the complete willingness of everyone to accept research findings once they are assured that the results are based on carefully designed and well conducted experimental work.

Weed Problem Attacked at So. Calif. Field Day

By VERNE WICKHAM

"There is no profit where weeds are concerned. They spell only costs and losses," George A. Izay, Asst. Park Supt., Burbank, Calif., told the more than 300 who attended the annual So. California Field Day in October at Forest Lawn-Hollywood Hills with field demonstrations at Buena Vista Park in Burbank.

Izay's topic was "What It Costs to Live with Weeds." He cited the huge loss to golf courses. "Weed control, no matter which method is used, is high in cost of time and labor as well as money," he said. "Turf on courses and athletic fields must be kept reasonably free from weeds. Good grass growth that is dense and healthy is, of course, the most satisfactory means of controlling weeds. It has been estimated that the average life of a turf, before needing renovation, is from 3 to 5 years. In 1954 a survey was made in Los Angeles County which set the total value of 63,500 acres in the county at \$262,457,700. At a replacement rate of \$.05 per sq. ft., it would cost \$138,281,200 every five years to rejuvenate this turf. Since our turf is never renewed at that rate, we may assume that we are paying tribute to weeds in having to live with second and third-rate turf. A very conservative estimate is that the cost of combating weeds on a golf course in this area is roughly \$20 per acre. This rate applied to the 3163 acres of golf course turf in the county represents an annual expenditure of \$63,260 in the battle against

weeds. A typical cemetery expenditure in weed control is \$15 per acre. The athletic field \$30 per acre each year. This is a heavy cost and doesn't take into consideration water and soil nutrients lost each year to weeds. Fortunately, scientists have made giant strides in the effort to stop this waste. With the knowledge they have gained there is increasing hope that man shall eventually be the master over weeds." William A. Harvey of the University of California, chose as his topic, "Know the Weeds, Know The Method."

Harvey gave an outline of type of herbicides, citing the vital importance of first identifying the weed and then selecting the best known chemical to eradicate it. He told of the many kinds of chemicals, some old and some new, and divided his field into selective and non-selective herbicides. "Selectivity," he said, "may depend upon differential wetting, differences in form of plant and upon placement of the spray. Selectivity depends primarily on biochemical differences between plants."

As to the non-selective herbicides, Harvey said they were aimed at "killing everything in sight" Chemicals in this group, he stated, kill only the plants or portions of the plants actually contacted by the chemical. Annual weeds are usually killed by one thorough treatment. Perennial weeds require retreatment. Many of the same chemicals are used in both selective and non-selective fields. It is their use and methods of application that determine their selectivity, he said.

The group then witnessed a soil treatment demonstration by J. J. Stark, Extension Service, Los Angeles County, and inspected weed control plots in Buena Vista Park. The next day an open house was held at the experimental test plots at the University campus and crabgrass test plots at Bel Air CC.

Quarter-Century Pro Meet Scheduled for Jan. 29-30

Annual tournament of the PGA Quarter-Century club will be held at Dunedin, Fla., on Jan. 29-30, immediately following the PGA Seniors championship.

More than 300 men who have been in the pro ranks for 25 years or more are eligible to take part in the 36-hole event, jointly sponsored by the PGA and Professional Golf Co. of America, Inc. Prizes totaling \$2,500, \$1,000 in cash and \$1,500 in merchandise will be awarded to winners in various age groups. In 1956, every pro who took part in the tournament won a prize.

National Turfgrass Conference
Feb. 10-15 Kentucky Hotel, Louisville