and the GSA annual golf tourney in which 95 GSA members and guests participated—Harold Jones, Albany, N.Y., posting a score of 137 to win the 36-hole event.

Afternoons of both days were devoted to inspection of turf plots and discussion of experimental work being done by Prof. H. B. Musser and staff with the following results being shown:

1. Breeding program promises to provide superior blends of bent and fescues for better turf on greens, tees and fairways.
2. Dry applications of 2, 4-D formulations for weed control are as effective as liquid applications.
3. Cadmium compounds successful in controlling dollarspot—greens are not thrown off color by treatments as in the use of mercury compounds.

Dr. Grau, Dir. USGA Green Section (left), demonstrates small spray for 2,4-D use and Bob Scott, Baltimore, shows gadget for cutting square pieces of sod at Beltsville meeting.

Beltsville Turf Meeting
Approximately 75 people, including representatives from local gardener’s clubs, War Dept., Navy Dept., and Maryland Univ. as well as greenkeepers from the Maryland-Virginia area attended the Field Day meeting at the Beltsville Turf Gardens, Sept. 18, sponsored by the Mid-Atlantic Assn. of Greenkeepers.

Highlights of the meeting included:
1. Inspection of turf plots with emphasis on use of Alta fescues, the Zoysias and Bermuda grass.
2. Demonstration of maintenance machinery and “Greenkeeper Gadgets” showing lawn renovation procedures.
3. L. W. Kephart, in charge of Weed Investigations, Bureau of Plant Industry led discussion on weed control in turf, emphasizing use of 2, 4-D and chemicals in the weed control program.

Attendance at the various Fall Field Day meetings is to be encouraged. These meetings afford the greenkeeper an opportunity to keep pace with advances which are being made in his profession.

LIBERAL BUDGETS PAVE WAY FOR ECONOMICAL COURSE MAINTENANCE IN MIDWEST
By D. M. Bell, Exec. V. P., D. B. Bell & Son, Inc.

By and large within the last year the golf courses in the Middle West, in our opinion, have made the greatest strides toward economical operation that have been made in twenty years. In years to come we are convinced this is going to result in not only more economical maintenance, but in greater efficiency as well.

The opportunity that has been presented by liberal purse strings on the part of the clubs, bulging memberships, and waiting lists has given the superintendent of the golf course the opportunity to get what he has been wanting all these years without the usual long and arduous task of getting approval regarding the money, increasing the budget, etc.

Fertilization of fairways and general fairway control has been given increased consideration; weed control has been widely practiced with very satisfying results; the use of peat to improve compost for greens topdressing has been widely in-

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creased and improvements in soil structure of greens is thus anticipated. Watering practices have been given considerable attention and this phase of maintenance, in many instances, has brought desirable results; the aerating of greens and fairways has been inaugurated in many new cases and in some instances has been made a regular practice.

With their new freedom to purchase materials and equipment that they have long needed and wanted, not only are the greenskeepers in this district pleased but there is allowance for a self educational process that is indeed interesting. Everything that is done is not correct, but with the opportunity to try new practices and procedures that have long been considered and heretofore been impossible, they are learning a great deal about turf control.

We have in the middle west, we believe, an outstanding group of greenskeepers and golf superintendents. Their attitude toward their profession is an unselfish one and for this reason primarily, we believe that they are superior in their profession to any group engaged in similar occupations. We would put the greenskeepers of the Heart of America district up against any group in the country.

We expect to see a great deal more progress in the direction of player satisfaction due to improved green and fairway turf in the next five years resulting from this opportunity of the greenskeepers to buy what they need and their very aggressive and cooperative attitude toward the challenge facing them. Although machinery has been very difficult to secure, it has been secured and is in use by many of the leading institutions and the results are indeed gratifying.

COURSE DEVELOPMENT IN FLORIDA
By James L. Blackledge,
Island Landscape Co., Palm Beach, Fla.

EQUIPMENT USE:
1. The following have adopted high-speed airfield type gang mowers for mowing roughs:
   O. S. Baker, Indian Creek Country Club, Miami Beach
   Gene Tift, Bayshore Golf Club, Miami Beach
   C. C. Kelly, Miami Shores Golf Club, Miami Shores
   Robert Cribett, Lakewood Country Club, St. Petersburg
2. Despite a long standing prejudice against the use of power mowers on winter grass greens, there is a gradual and general change to power mowers in progress as a result of improved power mowers and a better understanding of the causes of troubles on winter grass greens.
   O. S. Baker, Indian Creek Country Club, is doing exceptional work with the F. G. Aerifier on his fairways, greens and tees.
   C. M. Mahannah, Riviera Country Club, Coral Gables, constructed the Riviera course with a minimum of hand labor. The savings in costs by the use of heavy construction equipment was demonstrated in an outstanding manner.
   SEEDING
1. Bermuda grass fairways established at Riviera Club with seed only instead of the vegetative method usually practiced. Mr. Mahannah's method included the use of a temporary cover seeded with the Bermuda seed and produced superior fairway turf at much less cost than the sprigging method.
2. Mr. Baker and Mr. Mahannah are both working with bent grasses for use on greens in South Florida and considerable promise is indicated. Dr. Roy A. Bair, Everglades Exp. Station, Belle Glade, Fla., is conducting tests with a large number of Bent and Blue Grass strains in cooperation with the USGA Green Section.

WEED CONTROL
Results with 2,4-D formations have been generally disappointing except as a control of "penny-wort." Sodium arsenate remains the preferred herbicide with most superintendents.

INSECT CONTROL
The new organic insecticides may be the answer to the mole, cricket problem in Florida courses. Some DDT formulations, sodium hexachloride and "chlor dane" are showing promise in this regard. Mr. Norman Hayslip, Entomologist, Everglades Exp. Station, Belle Glade, Fla., is conducting some tests with these materials.

HIGH LABOR COSTS CAUSE TREND TOWARD MECHANIZED EQUIPMENT
By Paul Miller,

We, in the golf course supply business, are quite alarmed with the increased cost of maintaining an 18-hole course.

In our travels, we notice that the trend is toward mechanized equipment, eliminating all the hand labor wherever possible, in order to keep maintenance operation within budget limitations.

In the past, some of the clubs used hand labor for cutting and brushing greens; now they are installing power greens-mowers with brush attachments and putting brush attachments on their spreaders when applying fertilizer and topdressing. Some have increased their fairway mower to a seven instead of a five gang unit, and the rough cutter to a five gang mower instead of a three gang or sickle-type machine. They have discarded the old conventional hand scythe and installed electric grass shears, using a portable generator for power. Others are applying fertilizer and weed control in one operation.

One 18-hole course in the Twin Cities has been maintained with but four men and really kept in first class condition. Greens cutters do all the clean-up work around the greens, such as cutting approaches, raking traps, removing weeds, changing towels, and cutting bunkers when needed. In other words, everything is done without going back to do some other little job that may take but a few minutes to do. The men do not get through until along in the afternoon, but they are keeping the budget in line and at the same time doing a good job.