



Better Turf for Better Golf

TURF MANAGEMENT

from the USGA Green Section

Fairway Renovation at Seattle Golf Club

BY KEN PUTNAM, SUPERINTENDENT

In the Pacific Northwest, Paul Bunyan is famous for his great schemes and accomplishments. Paul was a super lumberjack, not a golf course architect. No one could blame him for failing to realize that cleared timberland would not produce smooth riding fairways. In fact, we had few complaints until the electric cart era gave rise to comments that we had "rough riding" fairways.

The Seattle Golf and Country Club was built on virgin fir timberland in 1906. After logging, the stumps were "blown" and the holes and depressions filled by horse drawn scrapers. No attempt was made to settle or compact the filled areas.

With the march of time, golfers and the elements, the stump holes settled deeper and deeper. Finally the fairway mowers could not cut the bottom of some depressions. Water and fertilizers collected in the sunken areas and the flourishing grass intensified the mowing problem. Then came the carts and something had to be done.

Futile Attempts — Then a Plan

Many futile attempts were made at truing the fairways by patching individual "sinks." It was soon decided that a more complete job would be necessary.

Mr. Ed Dunn, Green Chairman and USGA Green Section Committeeman, tried to obtain information on costs and methods of fairway renovation from

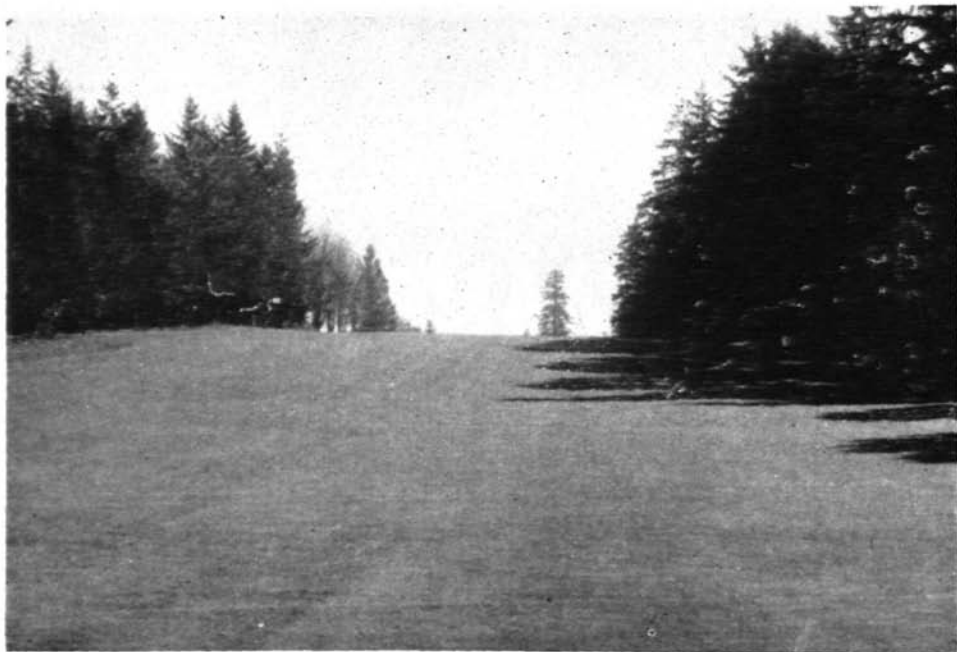
other clubs throughout the United States. Apparently a job of the type and size we contemplated had never been done before. No records were available. To complicate matters, members wanted to keep the course in play (if possible) during the renovation work.

We considered and decided to try sodding. Maybe it was the influence of Paul Bunyan that encouraged us to take on this extraordinary task. Since the big cost would be in handling sod, a system had to be developed to eliminate as much handling as possible. The solution came in the form of pallet boards and a tractor with fork lift. A heavy duty power sod cutter and 200 pallet boards (40" x 78") were purchased and work began.

A Sea of Sod

The sod was cut from 1" to 1½" thick, 15" wide and 36" long. It was piled by hand on the pallet boards to a height of about four feet and the top few rows were layed crosswise to help tie the pile together. With the fork lift attachment on our tractor, the sod loaded boards were moved to the rough. The sod along the first ten or twelve feet on both sides of the fairway was placed directly on the rough grass. This made it possible to get by with fewer pallet boards.

A layer of organic matter two inches thick was found under the fairway sod. It was so tight, our disc would not touch it and cultivators had to be used. We



A worth while job well done. The finished product after lifting the sod, cultivating the organic matter, discing, levelling and returving.

cultivated to a depth of ten to twelve inches, then disced twice and finished leveling with a Roseman Tiller Rake and a float. During this operation, the rest of the crew were picking up rocks and piling them for later removal.

After leveling, an application of lime (3 tons limerock flour per acre) and fertilizer (1000 lbs. 6-20-20 per acre) was worked lightly into the soil. The area was then rolled, the pallet boards returned and the sod replaced, followed by another rolling.

Up on Monday — Down on Friday

We found it inadvisable to lift more sod than could be replaced in one week. The area to be done depends on the size of the crew. The first fairway we attempted was three acres in total size, but we split it down the middle and tackled only 1½ acres.

Sod cutting started on a Monday and it was back on a leveled fairway by Friday afternoon. We found this to be about the maximum work load for nine men if the weather is favorable. We later tried three acres at one time with the same crew. It took ten days and the sod was quite discolored when replaced.



Sod on pallet boards ready to be lifted over to the rough.

Our Facts and Figures

To date a total of ten acres have been renovated. Through experience and the use of proper tools, our original cost of \$490 per acre has been cut to \$450 per acre. Experience has also taught us that one man will need 7 hours to cut 1 1/4 acres of sod; nine men require 12 hours to lift this sod on and off the pallet boards; two men require 16 hours to cultivate and level the 1 1/4 acres.

We feel the results more than warrant the expense and club officials plan to continue this long range program until all fairways have been corrected. It is hoped that an average of three fairways a year will be so treated by our regular crew.

It has been a big job but we become more efficient with each start. Although our progress is good, work could surely be speeded if only Paul Bunyan would return and give us a hand!



Sod back in position ready for light rolling.

Poison Information Centers

As the use of chemically complex pesticides has increased, the need for ready sources of reliable information has grown. The Green Section can furnish mimeographed lists of Poison Information Centers upon request to USGA Green Section, Southwestern Office, Texas A. and M. College, College Station, Texas. The Poison Control Centers listed keep pertinent information concerning symptoms, antidotes, and clinical procedures for all the economic poisons which are used.

The chemical materials used on golf courses may be used safely if the manufacturer's directions are followed. There is always an element of danger, however, when toxic materials are being handled.

Agricultural chemicals for pest control are often compounded from rather complex materials. Many of them are commonly known only by trade names. Because of these facts, physicians may be unable to determine immediately the proper clinical procedure to be followed.

Should a man on your golf course become ill after handling a chemical material, take him to a physician, tell the physician the trade name of the chemical, and give him this list of Poison Infor-

mation Centers. The physician will then be able to provide prompt treatment.

COMING EVENTS

- August 4-8
Annual Meetings American Society of Agronomy
Purdue University, Lafayette, Ind.
L. G. Monthey, Executive Sec., Madison, Wis.
- August 26
Rutgers University Turfgrass Field Day
New Brunswick, N. J.
Dr. Ralph E. Engel
- September 3, noon to September 4, noon
Penn State Turfgrass Field Days
University Park, Pa.
Prof. H. B. Musser
- September 8-9
Cornell University Field Days
Ithaca, N. Y.
Dr. John F. Corman
- September 11-12
University of Rhode Island Field Days
Kingston, R. I.
Dr. Jesse A. DeFrance
- September 15-16
Midwest Turfgrass Foundation Field Days
Department of Agronomy
Purdue University
Lafayette, Ind.
- September 16-17-18
University of Florida Turfgrass Conference
McCarty Hall, University of Florida
Gainesville, Fla.
Dr. Gene C. Nutter
- September 30
St. Louis Field Day
Clayton, Mo.
Leo S. Bauman
- October 15-16-17
Central Plains Turfgrass Conference
Manhattan, Kansas
Dr. Ray A. Keen