

# "Dead" Land Restored to Life by Golf Turf Program

By CLIFF ALLEN

Copper Hill Basin, in Polk county, Tenn., is a hundred square miles of low, rolling hills, deeply scarred by gullies, denuded of vegetation, covered only by the ugliness of ancient death. Copper fumes, from the copper that provides its present wealth, killed Copper Basin.

Near the meeting point of Tennessee, North Carolina and Georgia, the dead soil suddenly comes to life in a 30 acre golf course that in turf condition compares favorably with most smaller town courses. Partially healed gullies come to the very edge of the course.

Copper Basin began dying nearly a century ago, when man discovered copper in the hills. The ore was roasted on burning piles of wood. The trees that then covered the area were cut for fuel. This denuding process, combined with sulphur fumes, killed off the protective vegetation.

The living organisms in the soil died first, the humus followed shortly, and erosion in its worst forms went to work.

Modern mining and smelting processes eliminated the sulphur fumes, but the soil was so acid and so empty of plant food that nothing would grow. But the people of the area wanted a golf course.

In 1928, bulldozers filled in the gullies and sand greens were built. They were far from satisfactory. In 1945, under the leadership of Pres. Huyt Campbell and

Sec. W. H. Ritchie, the Copper Basin club decided to attempt what everyone said was impossible . . . to plant and grow grass.

## Prepare the Poor Soil

They used two tractors, a bush and bog disc, a drag harrow, a board drag, a lime spreader and a fertilizer distributor . . . and a concrete mixer.

The bush and bog disc carried the brunt of the battle, cutting the bushes, sprouts and sedge grass into the soil. Except that it could hardly be called soil. The topsoil was gone and the subsoil eroded, in some cases, almost to bed rock.

The concrete mixer was used to combine ten tons of 3-9-6 fertilizer and 150 tons of lime. This amounted to 667 pounds of complete fertilizer and five tons of lime per acre, applied with the lime spreader and the fertilizer distributor and thoroughly disced in.

The drag harrow and the board drag completed the job of preparing a seed bed, which was worked down after each rain. Soil preparation was started in June. In September and October, 1200 pounds of rye grass and 1200 pounds of a mainly bluegrass mixture were sown. The seed was mulched during the winter.

In the spring of 1946, another 333 pounds of 3-9-6 were applied per acre. In August of the same year, 333 pounds of



Soil wholly denuded of vegetation from deadly fumes in the Copper Hill Basin, Polk County, Tenn., once again grows turf and shrubs following heavy liming and fertilizer program.

superphosphate and 1 $\frac{2}{3}$  tons of lime were spread per acre.

The nurse rye grass died out in July of 1946, leaving the bluegrass mixture on its



Closeup of gullies adjoining Copper Basin GC shows sedge grass growth slowly coming back on once barren soil.

own. And it has held its own better than any one had dared hope. There are no weak spots in the sod, and in some places, at the edge of the greens, white clover is beginning to appear to further enrich the supply of nitrogen although normally undesirable from a golfing viewpoint.

Aside from the extra-heavy applications of lime, needed because of the extreme acidity of the soil, no more fertilizer was used than the average farmer applies each year. With this comparatively meagre portion of fertilizer, using regular farm tools, and at no great outlay for labor, the club has built itself a golf course of which it is justly proud. It did the job with no topsoil and no humus, other than the few bushes and the sedge grass that Nature had brought in, in a desperate effort to cover the naked soil.

Copper Basin GC is located in Polk county, Tenn., on Route 64, between Ducktown and Anjellico Gap, at the eastern limits of the basin.

Under the continuing direction of the county agent, F. R. Bradford, who planned the fertilizer, soil treatment and seeding, this golf course is living proof that virtually no soil need be called waste land.

## 1950 Tournament Schedule

### MARCH

- 2-5 St. Petersburg (Fla.) Open Inv., Lakewood CC.
- 7 La Gorce CC, Pro-Amateur Inv., Miami Beach, Fla.
- 9-12 Miami Beach (Fla.) Open Inv., Normandy Isle and Bay Shore GC.
- 13-15 Seminole CC, Pro-Amateur Inv., Palm Beach, Fla.
- 16-19 11th Annual Women's Titleholders Open, Augusta (Ga.) CC.
- 17-20 Jacksonville (Fla.) Open Inv., Municipal GC.
- 22 Aiken (S.C.) Pro-Amateur Inv., Palmetto GC.
- 23-26 Greensboro (N.C.) Open Inv., Sedgefield CC.
- 30-Apr. 2 Wilmington (N.C.) Open Inv., Cape Fear CC.

### APRIL

- 6-9 Masters' Augusta (Ga.) National GC.
- 17-22 50th Annual North and South Invitation Amateur Championship.
- 24-29 48th North and South Invitation Championship for Women.

### MAY

- 1-7 Western Amateur, Dallas (Tex.) CC.
- 15-19 British Ladies Amateur Championship, Royal County Down GC, Newcastle, Ireland
- 21-22 Illinois PGA Championship, St. Andrews (Chicago Dist.) GC.
- 22-27 British Amateur Championship, St. Andrews GC, Fife, Scotland.

### JUNE

- 8-9 Walker Cup Matches, Birkdale.
- 8-10 USGA Open Championship, Merion CC, Ardmore, Pa.
- 15-18 Palm Beach Championship (formerly Goodall-Round Robin Tournament), Wykagyl CC, New Rochelle, N.Y.
- 19-24 Women's Western Open Championship, Cherry Hills Club, Denver, Colo.
- 19-24 U.S. Seniors, Appawamis CC, Rye, N.Y.
- 21-27 National PGA Championship, Scioto CC, Columbus, Ohio.
- 25-July 1 NCAA Championship, Univ. of New Mexico, Albuquerque, N. M.