

Greenkeepers Bring Courses Through Tough Summer

Greenkeepers and Green chairmen were put to the test this year in coping with unusual weather conditions which too often resulted in turf failure in spite of round-the-clock attention given to greens and fairways. Course superintendents in the East had a drought to contend with while other areas in the north and mid-west had excessive heat and humidity. Some were fortunate in anticipating approaching damage and by constant care and attention brought greens through in good shape. In some instances underlying causes of damage were too deep seated to offset immediately with the result that once lush greens soon carried tell tale scars of a losing battle with the elements.

Courses which came through trying weather in good condition and the expert care and maintenance given courses that yielded temporarily to the ravages of summer is mute evidence of the feats of golf's forgotten men. Clubs in this fortunate circumstance can do well to give recognition and credit where it is due. It is time the boys who battle only par take time out to applaud the feats of the fellows who battled the elements for them and won. The summer of 1949 will be marked by many superintendents as one of the really tough ones in golf course maintenance history—one in which there was no easy solution to the problems that popped up suddenly—one in which the best was not always good enough and winning out came only the hard way.

Experiences of course superintendents in the troublesome areas tell the story:

David S. Elphick, Atlantic Highland, N.J.—We certainly did have a tough summer. To offset conditions it was necessary for us to aerate our greens at the rate of once a month. This method plus fertilizing for a real rigorous growth kept our greens soft and in a surprisingly green condition. Whether these treatments were the real reason or not the fact remains that the greens have been free of brown-patch and other diseases. The aeration helped us also with respect to our watering which has a high iron content and otherwise gives considerable trouble. There is little else to tell. We're happy that the methods used helped us through the extremely tough summer.

Frank P. Dunlap, Country Club, Inc., Chagrin Falls, Ohio.—This has truly been one of the toughest years in my experi-

ence, which goes back to 1919. I guess I have been one of the lucky ones this year though as my greens have stayed in good shape all summer.

The greens were aerified last fall and the holes left open all winter and top-dressed in the middle of May. The feeding program was 30 lbs. of 0-12-12 in early April and light feeding of Milorganite every 3 to 4 weeks until the middle of July when I changed to sulphate of ammonia as needed, 1 lb. to 1000 sq. ft. I have used Tersan and F531 exclusively as fungicides with excellent control. My fungicide bill was higher than usual, principally due to the extremely hot, humid weather which necessitated more frequent spraying to protect the greens from attack.

My watering program was to occasionally soak the greens thoroughly, and then hand water the edges and high spots early every morning. One man was kept continually busy probing hard spots, both with a turf fork and a sub-irrigator.

The greens were cut daily at $\frac{1}{4}$ inch. They are a good strain of Washington bent and have practically no foreign strains in them. I am quite convinced that the fall aerifying and supplementary forking was largely responsible for their good condition this year.

We lost all the poa annua in the fairways and around greensides and approaches. We are seeding these burned out areas with more permanent grasses and hope to avoid such damage in the future. The fairways were aerified last fall. If it produced any outstanding result it was the ability of the ground to quickly absorb water during heavy rainfall. Areas that heretofore had water standing on them for hours after a heavy rain were playable in a matter of minutes this year.

We shall again this year aerify everything from tees to and thru the greens. The same fungicides will be used until something proven better comes along. I am partial to these fungicides because they do not check the growth of the grass. If anything in particular impressed me this year it is the value of never ending watchfulness, to try to anticipate and prevent turf damage before it occurs.

Mike Branches, Hoosick Falls (N. Y.) CC—I have found that treating the greens

with Mercury Bichloride Corrosive Sublimate cured my leaf mold. Very little of it was seen here but it was applied carefully making sure there were no leaks in hose connections as any excess amount burned the greens. I gave the greens a good 24-hour watering after every dosage of Mercury. We were able to keep the greens in good shape by watering but it encouraged clover. Searing winds caused us to keep up the watering program to keep the greens in shape. The fairways burned to a tobacco brown but have come back beautifully since the second rain. Bents and fescue burned out. Bluegrass stood up well on the fairways. The greens are beautiful now and the few bad spots we had are filling in well. It was the worst drought we have had in the north-eastern N.Y. section in over 20 years.

Irving R. Pierson, New Haven (Conn.) Municipal GC—Every greenkeeper will remember 1949 because it was so hot and dry. We were lucky enough to have our own water supply, but had to keep putting copper sulphate in the ponds to keep them free of algae, etc. The water was unusually stagnant this year giving us more trouble than experienced in past years. We used water at the rate of 9,000 gallons per hour and during the exceptionally dry weather we watered 12 hours each day.

Watering was done by sprinklers from last week in May until June 15. Sprinklers were stopped then to keep greens from getting water-logged. Hand watering followed, using 1½ inch hose with large nozzles. Greens were kept on the dry side and we were able to keep all greens in play except No. 3 which was closed for 10 days. All the more remarkable when you consider that we have had 54,753 players on the course up to Sept. 5.

In reconditioning the No. 3 green I borrowed a Thompson drilling machine from a neighboring greenkeeper. The soil was so compacted it was like cement. After we completed drilling, a mixture of 10 lbs. of lime to 150 gals. of water and 3 gals. of liquid fertilizer was watered into the green. This treatment was given on August 8. It is 100% better today. I might add here that we had the same trouble two years ago and made the mistake of topdressing. The heavy traffic made it very bad so I changed to liquid fertilizer. Since that time we have followed a program of using liquid fertilizer from June 15 to Aug. 15. Milorganite, superphosphate and potash mixed with topdressing are used in November and around April 1.

C. C. Shaw, Miami (Fla.) CC—To give the correct impression of the past sea-

son's experience it is necessary to relate what happened in 1947 and 1948. South Florida was flooded. Some courses closed for period of two months or more. In some instances the flooded fairways were helped as it freed them from many weeds and insects, however following this very wet condition many greens on some of the lower courses suffered from water grass (Sedge). Greens will not respond to treatment when in this condition. Sod web worms and many other pests have been the worst in many seasons. Following the two wet seasons we had a period of almost no rain for six months. Courses that did not have watered fairways suffered severely.

I have just completed a trip covering the state from Orlando south and found conditions generally improved and look for much improved golf courses this winter. Hurricane damage was not too severe. Courses that were flooded with salt water are already showing signs of improvement, however it is a little early to predict the full extent of the damage to the turf.

Greenkeepers in Florida have a real problem every year during the Hurricane season—Aug. 15 to November. No doubt this has been the main reason for Bent failure in the state. Several years ago LaGorce and Bayshore golf courses had greens planted to African Bermuda. The grass was beautiful until the hurricanes came. They were never able to get them back in good playing condition before January. This has been the general experience with Bent. Tried for many years in turf nurseries, some of the new strains of bermuda being developed at Tifton, Ga. and Belle Glade, Fla. show real promise.

What we really need is more funds for the boys carrying on this experimental work with the addition of many more stations over the country. When one considers the tremendous acreage planted to grass, the money spent to maintain it, and its importance to the country, we need more research.

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