

DROUGHT BRINGS SAVING

By LENY CALDERWOOD
Pro, Emporia (Kans.) CC

Water Shortage Forces Club to Install Its Own Watering System

THE terrible drought year of 1934 which burned up fairways on practically every golf course in the middle-west actually brought about a big reduction in the cost of watering the greens at the Emporia (Kan.) CC.

Of all the cities hit by the drought, Emporia suffered as one of the worst. The water supply for the city had already decreased so rapidly that the population was faced with a serious problem of a water shortage, even for the necessary domestic purposes. Twenty-some consecutive days with temperatures over a hundred degrees burned the fairways to a crisp. Then the mayor of the city ordered the country club to cease watering the greens which were being watered from the city water system. A few days without water would completely finish our greens which were already suffering from the heat.

Fortunately our course had a lake of quite an area and, at normal, its depth reached nearly thirty feet in places. Immediately our club president, C. W. Burnap, called a special meeting of the directors. Several years before this Mr. Burnap had drawn up a plan whereby the greens could be watered from the club's own lake at a saving, but hesitated to carry out this plan because of financial conditions which at that time confronted many clubs. However the water would have to be taken from the lake or the club would lose its greens. So the directors approved the president's plans for the club's own permanent watering system.

Of course, a permanent system could not be constructed in time to save the greens from burning. New pumps could not be ordered and installed in time to keep the greens still unharmed from lack of water. Although pumps were very much in demand throughout the country by farmers, Mr. Burnap secured a used pump and set it up the following night, connecting it with one of the main lines which ran near the lake. This proved unsatisfactory but it supplied enough water to keep the grass alive until the permanent system could be finished.

Main lines were quickly laid and hooked up with branch lines to the greens. A new

pump and an automatic electric motor with pressure tank were installed. And now the club has its own permanent watering system which is sure to save much money over a period of years. Too, after a few applications of lake water, the greens showed a bright healthy color that had been lacking, probably due to chemicals in the city water.

According to Mr. Burnap's figures, the club had been paying the city 25 cents per thousand gals of water. It costs the club 7c per thousand gals, counting depreciation on the pump, to pump its own water from the lake. The new system has also helped to cut the labor for watering the greens to about half that used for watering from the city system. Formerly, only three or four greens could be watered at one time on account of pressure from the city water system, but nine greens can easily be watered with ample pressure from our own pumping system. This saving will pay for the installation of the new permanent system in two year's time.

The total expense to the club was \$750. Nearly all of the pipe laid for the new lines was used pipe bought from the oil fields. In the rearrangement of the system 2,400 feet of trunk line was laid. A used pressure tank was also secured for \$35. The electric motor and a plunger type pump, pumping 2,100 gallons of water per hour, were purchased new for \$230. The cost of labor was low, as several of our club members donated their time.

Jersey Genius Speeds Fairway Fertilization

KENT BRADLEY, ingenious New Jersey greenkeeper, has scored another in speeding up golf course maintenance work.

His recent achievement was to fertilize about two acres of lawns and all the fairways from tee to green on 27 holes, in 22 hours running time, including trips to the barn to load up! Fairways are from 150

to 200 feet wide, over a rolling topography..

Kent took a Little Giant lime and fertilizer spreader that is made for farm work, and adapted it for golf course use.



A Worthington truck-tractor was rigged with a platform body and driven at normal running speed, with the Little Giant spreader clamped to the tail end of the platform. This spring he mixed a 16-8-4 fertilizer and applied it at the rate of three and two-tenths pounds per thousand square feet of turf.

The fertilizer was dumped a bag at a time into the hopper while the outfit was in motion. A self-closing device of Bradley's design prevents an excess of material running out when making turns, and a notched stop gauge regulates the rate of application. The spreader will apply line, sulphate of ammonia, Milorganite, commercial fertilizer, ammo-phos, etc., and for dusty material like cottonseed meal, castor bean pumace, poultry manure, etc., a baffle can be attached in a few minutes, to prevent the material from blowing.

The width of spread is from 8 to 20 feet, depending on its coarseness. Kent is going to rig a special shaft to the spreader, so that it will hitch to the Worthington truck draw bar, and compost can be dumped into the hopper from the truck, to topdress fairways.

The operation can be further speeded if a truck is available to haul the bags from the central storage shed and toss them on the tractor while it is running parallel to the supply truck.

This spreader promises to become a very useful machine to golf courses as it can also be drawn by hand to broadcast material on greens.

FIGURES compiled by J. Fred Smith, secretary of the Club Managers' Assn., on 4,528 of the private country and city clubs of the U. S. record these clubs as employing 90,560 persons and having an annual payroll of \$77,000,000.

Combine Sawdust with Sand to Hold Oil Longer

By GEORGE W. EGLEY

President, Spring Creek GC, Onarga, Ill.

I read with interest in the April issue the article on "Sand Greens". The Spring Creek Golf Club, located at Onarga, Ill., is a nine-hole course with sand greens. We have been told by visiting players claiming to have played sand greens, that they think we have as good as any they have played.

The method we use is very similar to suggestions in your article. We, however, think that the use of sawdust mixed with the sand is great improvement. We use between three and four bushels of sawdust to a ton of sand. This is mixed with sand and oil before the dressing is scattered on the green. It is our opinion that the sawdust keeps the sand from caking so much and also retains the oil for a longer time than sand alone.

For oil we use automobile crank case oil, which is usually thin enough; if not we use kerosene for thinner. Crank case oil is picked up from filling stations at less price than fuel oil, which we have tried.

Our experience leads us to the conclusion that a thin oil and more applications per season is a better method than heavier oil.

Milwaukee Officials Hosts of Greenkeepers

MILWAUKEE District Country Club Assn. was host to the district's greenkeepers at a dinner and conference held at the Milwaukee AC, April 5. Walter Gaedke, president of the Milwaukee DCCA, presided.

O. J. Noer, put in the unique spot of a prophet with honor in his own country, gave the club officials and greenkeepers a valuable practical address that held interest each minute of its hour-and-a-half length.

R. W. (Doc) Treacy, PGA secy, spoke of the tremendous help the USGA Green Section has given to golf. Treacy forecast that unless more golf clubs realized the necessity and value of the Green Section, the USGA couldn't help but be forced to a reorganization of the section on a basis that might compel the clubs that have been riding on a pass to pay for their ticket to Green Section service.