

'38, YEAR OF THE "BIG RAINS"

By JOHN
MONTEITH, Jr.

AS OUR northern courses are receiving their season's finishing touches before being put away for winter storage many a greenkeeper will give a sigh of relief as he realizes the past summer's worries are over. In many sections of the country the damage to turf on golf courses has been more severe and more generally distributed than has been experienced for many years.

The entire story of greenkeeping experience during the season is by no means one of lost turf and general calamity, as many individuals have summarized it. From a constructive viewpoint the summer very effectively brought out several important weaknesses in greenkeeping practices and it is to be hoped that measures will be taken before the late experiences are forgotten. Advances were also made in the general knowledge of greenkeeping which, as usual, are difficult to evaluate until time furnishes further proof of their merit.

In summarizing greenkeeping difficulties for a season it is usually extremely difficult to designate any one factor as the principal cause of turf injuries in the several regions where extreme damage occurred. The cause of the most extensive damage in 1938 can easily be summarized in one word—"rain." Many golf club officials throughout the East and

Middle West learned, as they had perhaps never learned before, that the expression, "when it rains it pours," was no mere collection of words for advertising a table salt.

Excessive rains in the cooler seasons may do little or no damage to turf but during hot weather the results are usually disastrous. This year summer floods covered many fairways and putting greens with several feet of water which, in some cases, remained there for several days. Even without a deposit of silt, turf which was flooded was damaged to some extent, and in some cases practically all killed. Annual bluegrass appeared to suffer most, but Kentucky bluegrass also was badly injured. The bent grasses, particularly creeping bent, withstood the long immersion better than most of the other turf grasses. The performance of bent on fairways this summer in several sections of the country has aroused more interest in it for fairways. No doubt there will be a much more general use of bent seed for replanting fairways than in the past. This

Golf course greenkeeping got a backhanded, though sincere, tribute because of one man's tough luck. Condition of the Germantown (Pa.) grass courts during the Davis Cup tennis matches was so bad that newspaper sports writers drew comparisons with golf greens and wondered why tennis couldn't employ the genius of men responsible for the fine grass on golf courses.

is especially likely to be the case in low fairways subjected to flooding.

The recent hurricane resulted in much injury to turf on golf courses along the New Jersey and New England coast. This was primarily due to flooding or to the salt water spray. How much permanent damage has been done to turf by this means can not yet be estimated. Certainly the damage would have been much greater had it occurred in mid-summer. It is also safe to predict that the permanent damage to turf from the salt water will not be anywhere near as severe as many golfers have feared it would be.

Water-Soaked Soil Discouraged Root Growth

The damage to turf by excessive rainfall was by no means confined to areas that were flooded. Heavy and continuous rains kept soil saturated throughout most of the East and Middle West. Water-soaked soil discourages root growth, especially where it is packed hard by trampling or machines. Therefore, the turf on golf courses invariably had shallow root systems this season. Frequent rains with accompanying high humidity resulted in a soft, succulent growth of grass which was more sensitive to injury by diseases, chemicals, and the wear and tear of play. The shallow root systems and generally weakened condition of turf made it slow to recover from any type of injury.

In a season of heavy rain the defects of soil and air drainage are most noticeable. Even with the best of drainage in such a season there is likely to be damage from excessive moisture. However, where drainage is poor the harmful effects of too much water are exaggerated.

One of the outstanding developments of the season has been the extensive use of chemicals for the control of weeds. For a number of years there has been an increasing interest in tests with sodium arsenite, arsenic acid and sodium chlorate for the control of various weeds in turf. An article published in September, 1937, GOLFDOM summarized the observations of these chemicals up to that time. This

article apparently served to stimulate further interest in the methods of eradicating weeds with chemicals, with the result that during the fall of 1937 and this year there has been a surprisingly increased number of golf courses on which chemical weed killers have been used either in small test areas or on a large scale. There have been many instances where a large acreage in fairway turf has been sprayed with chemicals. In many instances the putting greens also have been subjected to these treatments. The results obtained with these chemicals, in general, have been decidedly satisfactory. In many cases, as naturally could be expected, the results did not come up to expectations. In these latter instances the failures have been due to insufficient information on how to use them, while in many cases they have been attributed to expectation of something in the nature of a miracle which failed to materialize.

There are a number of cases on record where whole fairways have been sprayed with these chemicals with the result that such weeds as chickweed, speedwell, plantain and clover have been controlled or at least greatly checked without any loss of the permanent grasses. The discoloration of the fairways with these chemicals has been somewhat alarming to club members, but fortunately thus far no casualties have been reported among greenkeepers and green-chairmen resulting from the abuses to which they were subjected by club members who insisted on drawing their own conclusions as to what these "new-fangled" chemicals would do to golf courses.

Sprayed Fairway Slow to Show Results

To cite one case, the chairman and the greenkeeper conspired to spray one entire fairway which was considered by far the weediest fairway on the course. The treatment was made a little too late in the fall, with the result that the grass did not have a chance to recover from the treatment and was extremely slow in regaining its color in the spring. By early April in the locker-room of that club it would have been suicidal to even mention any possibility of again using chemical weed killers on that course. In a few weeks, however, the tide turned as this treated fairway gradually took the lead as the best fairway on the course. In the fall the chairman of the committee ob-

tained considerable amusement from the numerous requests of club members for extensive spraying operations on the other 17 fairways.

The experience of the chairman mentioned was no doubt duplicated on many golf courses. Such experiences this season in various districts have given further concrete evidence that these chemicals have distinct merit in golf course maintenance. They also serve to indicate that the rank and file of golf members, abusive though they be at the time, are fundamentally interested in course improvement and are willing to tolerate (though not without comments) a temporary discoloration of turf in the interest of permanent turf improvements in the way of weed removal with the consequent thickening of the grass.

In the fall of 1937, in cooperation with the USGA Green Section, the Atlanta (Ga.) Athletic Club established a small turf garden on the East Lake course. In this garden several combinations of materials for improving the physical condition of the soil were put under test; also a number of the best of the northern putting green grasses were put on trial. The garden was well cared for and every effort was made to give these grasses a fair chance.

The prolonged rainy period during mid-summer gave the turf garden a severe test but in spite of adverse conditions some of the bent strains continued to grow remarkably well. The results were sufficiently encouraging to justify planting a bent green in the fall of this year. In this green five of the most promising varieties of bent were used to try to determine which would be the most practical in that climate. The results obtained at the Atlanta garden can by no means be interpreted as proving that bent is practical for that district. The tests have clearly indicated, however, that bent is by no means as impractical there as has previously been supposed to be the case. Whether it will survive the more difficult tests remains to be seen but it must be admitted that it has given a good account of itself in the qualifying round.

If bent or any of the "year-round" grasses should prove practical in the Atlanta district it would eliminate the need for the double greens for winter and summer play. At the same time it would provide a more desirable putting surface than has been provided by Bermuda grass. The continued success of the Atlanta experiments would no doubt have an important bearing on greenkeeping methods on many Southern golf courses.

COAST COSTS AT ALL-TIME LOW

By ARTHUR LANGTON

MORE golf course for the money Pacific greenkeeping ranks. Golf courses on the western shores are undoubtedly better than they ever have been, but at the smallest per-blade of grass cost in history, due to the demands of golfers for a finer golfing medium coupled with their reluctance to loosen purse strings. As one greenkeeper pointedly remarked on the current situation, "Recession?" Say, we haven't got over the first depression yet!"

Definite progress has been made in turf technology during the past year, chiefly because of the necessity of providing better golf, even with cramped budgets, rather than as a result of research. For this reason, trends rather than developments are the order of the day.

California learned a bitter lesson from the unprecedented floods which swept

down from the mountains to valleys and the sea early in the year. But whether residents of the state will refrain from building golf courses, houses, or even towns on former waterways, no matter how innocent appearing or long unused, remains to be seen; but in the light of past performance an influx of new residents will build its homes and clubs in natural channels and hastily-filled waterways.

Even so, golf courses proved, that because of their widely-grassed areas, they could take a flood and protect the surrounding country from damage better than anything else. As a result a new

down from the mountains to valleys and the sea early in the year. But whether residents of the state will refrain from building golf courses, houses, or even towns on former waterways, no matter how innocent appearing or long unused, remains to be seen; but in the light of past performance an influx of new residents will build its homes and clubs in natural channels and hastily-filled waterways.