

Pacific Coast Has Unique Greens Problems

PROBLEMS confronting the greenkeeper in the extreme West are quite different from the ones his professional brother along the Atlantic seaboard has to solve. One thing they have in common and that is the critical player. The demand for perfect turf, impatience with anything which interferes with the game and a keen delight in making the green committee or the greenkeeper the "goat" when shots go wrong, is not confined to any particular locality. The western golfers have remanded, and now have, courses which represent the last word in architecture and maintenance. It would be an easy matter to pick a dozen courses on the coast which will compare not unfavorably with an equal number of the best which the East has to offer.

Fifteen years ago it was thought that good grass putting greens were beyond the reach of the Pacific golfers. Now some of the newer courses have the most perfect putting turf to be found anywhere in the world. This change illustrates what determination and intelligence can do in overcoming difficulties. Much is said about the western climate, but a few in the East who have never visited the coast really understand what it all means.

Great Gap in Rain

The distance from San Diego to Vancouver, B. C., is about the same as from Palm Beach to Boston, but there is nothing like the wide range in seasonal temperatures along the Pacific as along the Atlantic. The principal difference from south to north is a matter of rainfall. Southern California has an average annual precipitation of less than a foot. There is a gradual increase towards the north until the Puget Sound is reached, where the rainfall is sixty or seventy inches. Practically all this rain comes during the winter months. Nowhere along the coast can good turf be maintained during the summer without water and lots of it. Water is the key to the situation. Many of the California golf courses spend more for water than the entire maintenance cost of some of the eastern courses. In picking the site for a new golf course,

the first and all important question to be answered favorably concerns the availability of an adequate water supply. Excessive evaporation checks the growth of grass at the line reached by the sprinklers. A shot off the fairway may land amid desert conditions.

Climate has much to do in determining the character of the vegetation. In the East practically all the turf grasses have dormant or resting stages. There are no idle periods for turf grasses along the Western Coast. Except in the extreme north where it is too rainy in the winter for playing, golf is an all-the-year-round sport. Grass growth must be continuous. This no doubt explains why so many of the best grasses of the East have not produced satisfactory turf in the West. Everything in the turf line known to greenkeepers has been tried.

Rhode Island bent and the German mixed bent seed have been used freely and found lacking in ability to make permanent satisfactory turf. They soon become coarse, sparse and infested with weeds.

Fescue has also had its champions. Except in the Puget Sound region, red fescue has been no more successful as a putting green grass in the West than it has in the East. Some of the courses in the Seattle District have splendid red fescue putting greens—probably the best to be found anywhere in this country. Just why this grass does so well in that particular locality is difficult to explain.

Bent Performance

The creeping bents and vegetative planting next came in style. As far as growth alone is concerned the creeping bents do remarkably well under western conditions. But the turf from a playing standpoint leaves much to be desired. One trouble has come from trying to adapt the varieties put out by the U. S. Department of Agriculture to this new environment. Probably better results could have been secured if local strains had been developed. But there was no U. S. Department of Agriculture on the coast to do the work.

Carrying a large number of selections through a test in order to eliminate unde-

sirable sorts is no job for a greenkeeper with his many other duties demanding attention. Nevertheless, several western greenkeepers of late have been developing strains of creeping bent of their own selecting which give promise of superiority over the varieties imported from the East. Joe Mayo of Del Monte, Sam Whiting of the Olympic Courses of San Francisco, Herbert Wilson of the Lakeside Course at Hollywood and Mr. Stewart of the Hillcrest Club of Los Angeles have been pioneers in vegetative planting in California and deserve a great deal of credit for the successes they have achieved and their contributions to the fund of knowledge of grass growing in that State. At the present time, however, vegetative planting on the Pacific Coast is practically at a standstill. This is due not because turf of the vegetated greens is not superior to that of the old seeded greens for it certainly is, but because of the remarkable results obtained on a number of the new courses from the use of Cocos creeping bent seed.

Cocos seed is harvested in southwestern Oregon from a native strain of creeping bent and is therefore already adapted to an all-the-year-round climate. It grows naturally under the two extremes of excessive rainfall in winter and excessive drought in summer. It is also winter hardy and shows less ill effects from frosts and freezing than do the eastern strains of creeping bent. It is almost as fine in texture as velvet bent and has an upright habit of growth which makes ideal putting turf. It comes mighty near being what has long been desired—the turf grass without a serious fault.

Problems in Fairways

So far this discussion has been about putting greens. The production of satisfactory fairway turf in the West offers almost as serious difficulties as do the putting greens. This may be appreciated when it is understood that the natural grasses in most cases are short lived winter annuals. In Oregon and Washington the rye grasses have been seeded quite extensively and they make a coarse, rank, bunched growth during the winter. Kentucky bluegrass is much better and should be the one most seeded there.

In Southern California Bermuda is the dominant species. It grows freely along irrigation ditches and is easily spread, either by seed or pieces of the live grass,

in the water. It is scarcely possible to keep Bermuda out of fairways if water from the general supply is used for irrigation. As Bermuda turns brown with the first frost and then fades out to a light straw color, it offers an unpleasant drab appearance at a time of the year when play is at its maximum and bright colors most to be desired. If *Poa bulbosa* possesses all the merits its sponsors claim for it, it may correct one serious drawback to Southern California golf courses.

The customary fairway seeding is the usual mixture of blue grass and redtop. Bluegrass does as well as should be expected but redtop is an inferior turf grass for the west. Many are now trying to find a substitute for the redtop. The bents are being used in some cases and red fescue is also being seeded although it is difficult to find any results to justify it.

A new grass in this country but one of the oldest in European agriculture is attracting lots of attention and that is *Poa trivialis*, sometimes called rough-stalked-bluegrass. *Poa trivialis* makes a turf in some respects similar to that of the creeping bents. It is finer and grows in more of a mat than does its first cousin Kentucky bluegrass. In the East it has been quite extensively used for shady nooks. From Colorado westward it makes a better growth out in the open than it does in the East. It is a little too soft and tender to withstand rough usage when alone but it combines well with the bents. A combination of *Poa trivialis* and Cocos has given very satisfactory results where it has been tried. This mixture appears to be the coming fairway seeding over much of the western country. This combination is also a source of delight to the divot diggers on tees, and as both are creeping grasses the damage of these destructive "birds" is most easily and rapidly mended.

The principal problem around Portland and points north is to find an umbrella big enough to cover an entire golf course during the winter, as they call it when it begins to rain. The "Oregon mist," sixty inches strong, is a little too damp for winter golf but it makes for good turf and the summers are so delightful that the showers of winter are soon forgotten.

Golfing is penetrating the Rocky Mountain region where new conditions bring to the fore new difficulties. It is to be hoped that the greenkeepers there will tackle their own problems on their own grounds.