TODAY'S news headlines approximate to yesterday's science fictionmanned satellites, Telstar and trips to the moon. The whole nation is scienceconscious and ordinary people tend to think that there is a modern scientific answer for all things. Nowhere is this more true than in sports turf management whether of cricket wickets, football pitches, golf greens or what have you. A product with a good dash of scientific jargon in its publicity matter is sure to gain adherents who will flatter themselves on their acumen and will swear by the product-whatever the results produced.

Written in sincere appreciation of the constant loyal support accorded by British Golf Greenkeepers to The Sports Turf Research Institute ever since its inception. We at Bingley have our part to play but all our efforts to raise the standard of playing conditions must fail without the enthusiasm and skill of the men on the job.

## IT'S SO SIMPLE . . .

says J. R. ESCRITT, M.Sc.,

Assistant Director, The Sports Turf Research Institute

In the last few years we have been asked about new ideas in:-

Grasses which don't grow.

Chemicals which make mowing unnecessary.

Nitrogenous fertilizers which do not make the grass grow.

Soil treatments which make drainage unnecessary.

Soil aerators which are superior because they don't penetrate.

Needless to say, all these ideas need a little qualification!

In all the enthusiasm for making the most of new discoveries (obviously a good thing in itself) there is sometimes a tendency to forget the object of the exercise which is to produce the best possible conditions for the game—good teeing grounds, good fairways and good greens. When considering how to do just that, it is worth remembering that although these areas are in a way artificial they owe a lot to nature. There are many natural processes which are not yet capable of being replaced by scientific

marvels. Most of us prefer the old methods of procreating the human race!

Turf management is not without The Sports Turf Research science. Institute at Bingley-born in 1929, still going strong and growing strongercarries out as much research as finance will allow. There are still plenty of real problems for us to solve but in the direct interests of associate members we have to keep checking up on ideas which some have been persuaded are epoch-making. Unfortunately, few epoch-making ideas come forward and despite all further researches the basic principles remain surprisingly constant. Most troubles met with results from departures from these basic principles—in other words most troubles with turf (and possibly elsewhere!) are man-made. Some people will never appreciate that weed, worm, disease or mud trouble has arisen from some possibly unnecessary treatment they have been persuaded to apply for another purpose,

Mowing

There is a lot of science involved in mowing and its effects but one doesn't need a B.Sc. to appreciate the need for a good mower in good condition and used efficiently, preferably in dry conditions and frequently enough. A superficial knowledge of pH is no substitute for full appreciation and implementation of those rules.

Feeding

It is a long time since it was established that for good turf almost the cheapest standard fertilizers are also the best. For fine turf this means that the basis of all good fertilizer treatments is sulphate of ammonia, superphosphate and sulphate of potash. A little organic nitrogen and phosphate is commonly added but the farther one departs from the basic formula the poorer the results Fertilizers of this kind used usually. properly in the growing season encourage tough, hard wearing grasses and at the same time discourage disease, worms, weeds and mud. The chief improvement in the field of fertilizer treatment in recent years has been the advent of granular fertilizers (commonly based on sulphate of ammonia, superphosphate and muriate of potash). These are very convenient to use on extensive areas of sports turf though not very suitable for fine turf.

It is worth remembering that the aim is not to produce high fertility but to produce good turf.

Watering

Time has brought an increasing awareness of the value of watering to maintain growth and good playing conditions in dry weather. More people now possess watering systems but these are not all used to the best advantage. All too frequently we hear the cry, "Too little and too late". During the summer the potential loss of moisture by transpiration is the equivalent of about 1/10 in. per day. One might say that three weeks without rain result in a deficiency of 2 in. i.e. 200 tons per acre (9-10 gallons per sq. yd.). Some deficiency is not a bad thing, of course, but too much means poor colour, poor growth, poor playing conditions and even loss of good turf.

Top Dressing

On the intensively managed areas of golf greens, the object is to produce surface conditions suitable for the game. An important contribution to this is top dressing with sandy compost. It does not sound excitingly scientific—but it is remarkably effective. The passing years, instead of producing scientific replacements of the process have instead increasingly accentuated its value. People who are persuaded to neglect composting or to use other materials because of supposed special virtues generally come back to compost.

## Aeration

When growing agricultural and horticultural crops soil cultivations ensure a good tilth with adequate aeration. With turf we have consolidation by users as well as by equipment and we are restricted in our cultivations. It makes good, practical sense, however, to do what we can in this direction. There is an element of science behind all this—but people have cultivated the land for a very long time!

## Scarification

Long before 1962, farmers found that vigorous harrowing of old established pastures and meadows produced more vigorous growth, since the old "fag" strangled new growth. One of the biggest advances in turf management techniques in recent years has been the introduction of excellent scarification machinery. Remember, however, that like other machines, these need skilled and intelligent use!

## Where's all this leading?

These six headings are the basic principles of turf management—and there is remarkably little atomic science! They are simple and apply with little modification to most sports turf whether for golf, bowls, or hockey. Follow them and it is surprising how few are the difficulties that arise and how little there is need for up-to-date information on the latest cure-all. And even that needs putting on properly to give the best results!