## **Keeping weeds out**

THE BEST way of ensuring a weed free turf is never to let the weed in. Killing weeds is not the problem it used to be, but there are such things as resistant weeds, and in any case application of weedkilling chemicals involves extra cost in labour, materials and equipment.

Some check to grass growth is likely, discolouration of the turf is possible, and real damage can be caused by accidental overdoses. And, of course, treatment may involve some interference with play.

When preparing the seed bed for a new turf area, every effort should be made to get the new turf off to a clean start by physical or chemical fallowing, using of paraquat and diquat for example, or by soil sterilisation. The last involves the use of suitable sterilants such as methyl bromide or basamid. Great care is needed in the use of these materials because of mammalian toxicity risks, and the treatment is expensive, so that in practice only greens are likely to receive it.

New turf on insufficiently cleaned land often shows a variety of broadleaved weeds and weed grasses. Where practicable that is, on greens, weed grasses should be got out by hand as soon as they appear—there are no reliable selective grass-killers yet.

Many of the other weeds are likely to be annuals which are eliminated by mowing—one of several good reasons for ensuring regular mowing from the beginning. As to the remaining weeds, it is usually wise to avoid being overanxious until the grass is well established. Individual large docks and the like can be hand weeded to avoid possibly detrimental use of chemicals.

Special herbicides have been developed for treatment of young turf where this becomes essential but even the use of these should be the subject of careful consideration. The main chemical concerned, ioxynil and morfamquat, are present in proprietary products which • J. R. ESCRITT, Director of the Sports Turf Research Institute, tackles problems of weed control on golf courses.

must be used only in strict conformity with the instructions on the label.

Mixtures of fine grasses should be treated only when the sward is fairly well established and regular mowing has begun, but coarser mixtures based on ryegress may be treated a little earlier, once they have achieved at least two or three expanded leaves.

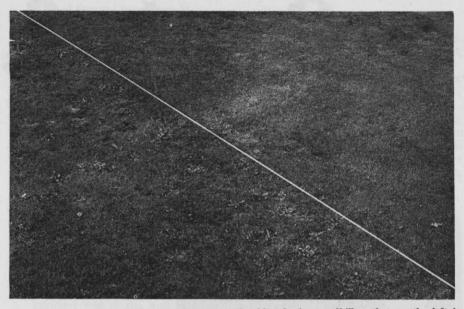
Normal selective weedkillers can be used, possibly at reduced rates, when turf has become reasonably well established, at least six weeks and preferably six months after germination.

General management has a considerable influence on the composition of a sward and accepted principles of good management can go a long way to keeping out weeds including moss. Fertiliser treatment, possibly including sulphate of iron, watering, mowing, and top dressing, all affect the composition of the sward. Top dressing alone can introduce an awful lot of weeds if it is not sterilised.

On can reasonably deduce that a good defence against weed problems is a good greenkeeper!

On greens hand weeding of the odd weed is **not** outdated; it can be very convenient and prevent a real problem from arising. Regular scarification or "vertical mowing" not only prevents excess fibre formation but also adversely

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TURF to the right of the line has been sprayed with selective weedkiller; that on the left is untreated.

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affects weeds such as clover and yarrow. In addition, it helps to reduced, or at any rate to restrict development, and disguise the appearance of patches of Yorkshire fog.

Nowadays killing broad-leaved weeds in established turf is a relatively simple task, but moss is a special problem, it is not eliminated by normal selective weedkillers. Management, including height of cut, plays a great part in moss control, but when there is a real moss problem mercurised moss killers suitable for the season are of great value. They are rather expensive and so are normally used only on greens.

Selective weedkillers will deal with most broad-leaved weeds. Their active ingredients are chemicals usually referred to as growth regulators, which are absorbed mainly through the leaves, but also through the roots, and act as poisons for susceptible species, upsetting normal growth processes and distorting



WHEN there are only one or two weeds on a green, this is still the best way of removing them.

growth. At first there were only two chemicals—2, 4-D and MCPA—and these were more or less competitive, covering almost the same range of weeds. Nowadays there are other chemicals available, including 2, 4, 5-T, mecoprop, dichloroprop, fenoprop, dicamba and 2, 3, 6-TBA.

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The chemicals are available as proprietary products which may contain more than one of the chemicals so as to ensure that a wide spectrum of weeds is controlled. It is obviously useful to know the names of the weeds causing trouble so as to ascertain whether they are listed on the label of the chosen product. The label should, of course, be read carefully and the instructions carefully adhered to.

Despite the excellence of the range of selective weedkillers successful results very much depend on the greenkeeper in the following ways :

FOLLOWING the instructions on the label;

CHOOSING the right product;

**TREATING** in the right season (usually late spring and early summer) and in the right weather conditions—fine warm weather when the soil is moist and growth vigorous. It often helps to link weedkilling with fertilisation, applying the weedkiller about ten days after the fertiliser when growth has been accelerated.

**USING** the right equipment (a suitable sprayer fitted with suitable nozzles) and ensuring uniform coverage so that no weeds are missed and no grass gets a double dose.

**FOLLOWING** up appropriately with repeat applications when necessary.

**AVOIDING** accidents like allowing drift on to flower beds round the club house.

The modern greenkeeper is provided with modern weapons but he has to be rather knowledgeable to use them properly.

