other methods of control have arisen. Some farmers have acclaimed these as successful, while others have condemned them as useless.

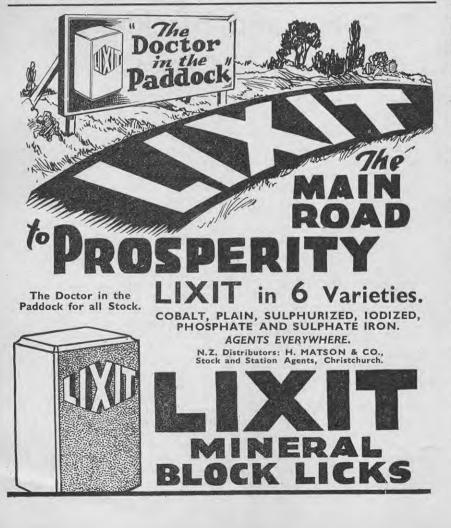
The Plant Itself.

Before discussing some of these methods let us examine the gorse-plant. First a seedling with soft clover-like leaves and later a spiney, small plant an inch or so high, it still later grows into a plant with stout, upright, woody stems with sharp prickles, growing up to 7 ft. or 8 ft. high. In time it grows old and dies. The plant is easily killed when it is very young and when it is old. The effect of merely cutting it down with a slasher will frequently kill "old man gorse."

The young gorse-plant can often be destroyed by fire before it flowers and by grazing stock nibbling it close to the ground. However, when the gorseplant has flowered once, and particularly when it has flowered twice, it is fully vigorous and much more difficult to kill. Hence we have the conflicting reports on the effectiveness of different methods of gorse-destruction.

Vigorous gorse can be destroyed by grubbing it out, severing the tap root about 1 in. below the crown. Once the tap-root is cut it is preferable to pull the plant out with a gloved hand and replace the turf, for the disturbed soil proves an excellent bed for the germination of the gorse-seeds which lie in their thousands wherever gorse has flowered. Whether gorse has been cut or burnt it is a wise plan not to fire it, but to leave the cut vegetation to rot away. A wonderful seed-bed is provided if it is burnt, and thousands of gorse seedlings soon establish on the burn. Left alone, the cut vegetation does smother or check some of the gorse.

If the area is to be grubbed soon after the cutting the dead vegetation may interfere with this operation and may, of necessity, be burnt; if the intention is to plough the area soon after cutting the gorse must be burnt. The burning can, advantageously at times, be delayed until regrowth appears from the old stumps, thus giving the gorse a second setback.



Burning of Gorse.

The burning of standing gorse probably does more harm to the grass and clover competing with the gorse than it does to the gorse itself. The burning of any gorse where no useful purpose is served and where it is not intended to pursue the eradication process further is foolish. The behaviour of gorse would almost lead one to believe that it was evolved on the farm of the man who did much of his farming operations with the firestick. Every time mature gorse is fired more gorse is brought to life, which, in two years' time, will be in full vigour of young adulthood.

Chemicals have proved to be of little use in gorse-control. A 5-per-cent. solution of sodium chlorate will kill gorse seedlings in the soft-leaf stage, but let them develop spines, and two or three times the concentration is then required to effect a kill. Left until later, chlorate sprays do little harm.

Attention has lately been drawn to the flame-thrower as a controllant of gorse. One farmer I know effected good control with one burning-off. The gorse, however, was "old man gorse," and a match might have been equally effective. This patch of gorse had stock tracks running through it, and there was a good sole of grass, including much paspalum, under the tall gorse. After being burnt the area was shut up for hay, and no doubt the young gorse seedlings, which would germinate profusely after the burn, were smothered by the vigorous grass-growth. Where the flame-thrower has attacked other gorse areas the victory has not been so easy.

Figure 2 shows an area of gorse and blackberry which has had six flamethrowings. The farmer, Mr. T. Bowker, of Patumahoe, who has carried out the work, is very satisfied with what has been accomplished, for the gorse and blackberry were 5 ft. high twelve months before taking the photograph. The method adopted was one which did the greatest damage to the weed with the least expenditure. First, a light touch of the flame-thrower was given to all the accesssible plants, and after this had gone brown the area was fired with a match.

Flame-thrower's Use.

One of the attributes of the flamethrower is its ability to bring about a burn in this way at any season of the year. This enables the farmer to continue punishing the gorse by burning it at short intervals. A few weeks later, when new growth had commenced, the flamethrower was used to play on this and to kill the young gorse seedlings which came up. The gorse seedling is killed if just singed with the flame. Later, a fresh