

COCKSFOOT-LUCERNE PASTURES

It is necessary to give a short description of the farm in order that the outline of the management, given later, may be better understood: A terrace runs east and west along the full length of the property dividing it roughly into two fairly distinct soil types. The lower area, of approximately 200 acres lying between the terrace and the road, is light and very stony; the 300 acres above the terrace is fair to medium silt loam on shingle. The whole farm has a northerly aspect.

Use of Lupins

The basis for the improvement of the farm has been the growing of lupins. These built up soil fertility and as a result newly-sown pastures had the vigour which ensured good establishment. Mr. Rands's practice is to sow 80lb. of lupins with a bushel of oats in the autumn, thus producing the greenfeed required during winter and spring. The paddock is then closed from stock until after harvest, and yields as high as 20 bushels of oats and 30 bushels of lupins per acre are obtained. Whatever method of harvesting lupins is adopted much seed is shed and, by lightly working the ground after harvest, a dense crop of self-sown lupins is available for winter feed. The lupin paddock is then ploughed in early spring, summer fallowed, and sown to pasture about the end of January.

The fattening of lambs during the dry summer period always creates a serious problem on the light-land farm. Mr. Rands soon realised that to increase carrying capacity he must prolong the growing season by the judicious use of the various high-producing pasture species. It was therefore decided to establish special-purpose pastures, each fulfilling a definite role in the grazing programme. Some such pastures would take up the running in early December when those of the conventional perennial ryegrass-white clover or subterranean clover type fall in production. Others



The cocksfoot-lucerne pasture provides good grazing during the dry summer period. [Green and Hahn Ltd. photo.]

would then carry on for varying periods until the ryegrass-subterranean clover paddocks came into production again. The feed supply would thus be maintained at a fairly steady level during the greater part of the year.

With this plan in view, Mr. Rands decided to sow down the whole of the lower area in such permanent pasture as would be not only resistant to grass-grub but would serve the main object—that of producing good grazing during early spring and summer. His reason for choosing the lower area of the farm for sowing down in

permanent pasture was to avoid the high cost of frequent cultivation of stony land. In a few years he had 3 well-established paddocks of cocksfoot, perennial ryegrass, and subterranean clover. Each one was sown after a summer fallow following rape or turnips. One ton of lime was applied before sowing and 1cwt. of superphosphate was drilled with the seed. These areas have given consistently good production. In the recent provincial pasture competition the oldest area was placed first in its class.

The rate of seeding was cocksfoot 10lb., perennial ryegrass 16lb., and subterranean clover 3lb.

A cocksfoot-lucerne pasture was laid down 4 years ago with 6lb. of cocksfoot, 11lb. of lucerne, and 1lb. of white clover per acre. Subterranean clover was not included, as the pasture was spring sown. Drilled in on limed and fallowed land in October it established well and produced a good bulk of feed.

In the spring of 1946, 30cwt. of hay per acre was baled. Later 100lb. per acre of machine-dressed white clover seed was harvested. After harvest the pasture was attacked by both grass-grub and porina, but, though it presented a sorry appearance during the winter months and no white clover was left in the sward, both the lucerne and cocksfoot made a wonderful recovery and the pasture is now even better than it was before the attack. This gives Mr. Rands ample proof that this type of pasture is very suitable for light land.

An effort to establish a second cocksfoot-lucerne pasture was not successful. The area was summer fallowed and sown with cocksfoot (7lb.), lucerne (11lb.), subterranean clover



A Montgomery red clover area. [Green and Hahn Ltd. photo.]