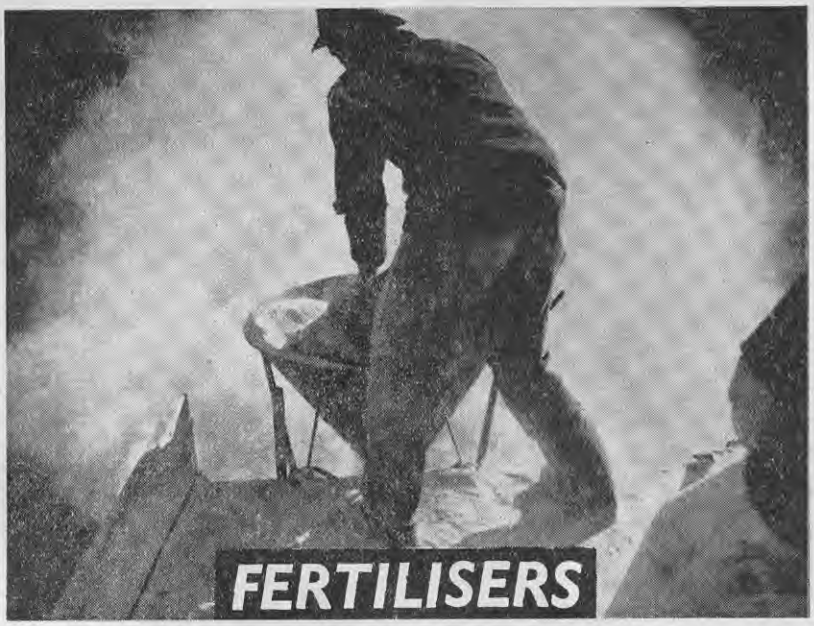
Making Most of Restricted Supplies

By

I. L. ELLIOTT,
Supervisor of Fertiliser Supplies, Wellington.



WITH the start of the new fertiliser rationing year has come the realisation that even now the supply position is insufficiently good to warrant the removal of the rationing regulations. The controls which are imposed as the result of wartime conditions are as distasteful to those who administer them as to those at the receiving end. There is, however, absolutely no doubt that a continuation of fertiliser rationing is necessary to maintain equity of distribution.

READERS will remember that last year we were supposed to get more phosphate than the year before. We actually did get that phosphate, and consequently were able to announce a special ration based on 1cwt. per dairy cow, and various increases in the schedule of quantities for each acre of crops. This year the quantity of rock available for distribution has again been increased, and the provisions for the 1945-46 rationing year, already publicised, are briefly as follows:—

1. **The elimination of the special ration for topdressing dairy farms formerly available at the rate of 1cwt. per dairy cow.**
2. **An increase in the basic ration for topdressing purposes from 28 per cent. to 42 per cent.**
3. **The re-opening of the appeal procedure.**

There has been some criticism of these provisions, principally on account of the removal of the special ration for dairy farmers. The implications of this measure were fully realised by the National Council of Primary Production, but it was felt that in view of the demand from overseas for other than dairy products, it was impossible to justify continued preference in the matter of fertiliser supplies for the dairy industry.

Now that the new rationing regulations have been announced, many farmers will be considering how to make the best of their allocation. Frequent reference has been made in the "Journal" to this matter, but it seems opportune to give a re-statement of the position.

Helping Out Ration

The first question one asks is what substitute materials can be used in place of fertiliser? Actually there are no completely suitable substitutes, but there are quite a few things which help.

Probably the most important material available for use on dairy farms is the livestock excreta dropped round yards, which can be collected in tanks and distributed on the pastures from suitable portable containers. The whole of this question is fully dealt with by Mr. G. A. Blake in his article in the May, 1945, issue of the "Journal."

Although lime cannot in any way be viewed as a substitute for phosphate, it can be viewed as being a great help in the efficient use of phosphates. If a soil is deficient in lime, there is every chance that the added phosphate, particularly if it is in the water-soluble form, will become "locked up" and unavailable to plants. When plenty of lime is present it enters into combination itself with the phosphate, and holds it in such a way that the plant can draw on it when necessary. In this way, therefore, the use of lime will help to make the allowance of phosphate go further.

It must not be overlooked, either, that lime is itself an important mineral in the growth of plants. Under most conditions in New Zealand soils it is present in sufficient quantity for purely plant food purposes, but there may be certain conditions where lime is necessary from this viewpoint alone.

Most plants grow best under certain conditions of soil acidity, and are frequently only tolerant to changes within a narrow limit. For general purposes it is desirable that soils be on the slightly acid side of neutrality.

The fact that plants react to changes in soil acidity is clearly shown where applications of sulphate of ammonia have been made to golf greens over many years. In this instance the clovers and demanders of less-acid conditions have disappeared, to be replaced by a browntop-dominant soil covering. If the process is reversed and lime applied to a sour acid soil supporting only browntop, clovers and other grasses will begin to appear as the soil approaches neutrality. By assisting in keeping general soil conditions right, the use of lime helps to conserve the use of phosphates.

Much attention has been focused of late on compost, and many recommendations made about its preparation. Composters have at least performed the very useful service to the community of focusing attention on the importance of humus in the soil.