

food, and it should be the object to till the ground at such a time and in such a manner that the most satisfactory condition suitable for crop growing is produced.

As a general rule, it is the use of the wrong implement at the wrong time that is often the cause of poor crops. Instances of this is the ploughing or deep grubbing of land for roots during November and December, which not only disperses valuable soil moisture, but also causes the land to dry out quickly into lumps, which are difficult to break down, thereby preventing adequate consolidation of the seed bed. It is therefore necessary to consider the season of the year as well as the particular implement to be used. If the work can be done only with that particular implement, then steps should be taken to avoid what may be harmful after-effects. In the case of summer ploughing or grubbing, harrowing should follow immediately and not in a day or two's time. This untimely use of implements, however, can be avoided if thought and planning are used in the farm programme.

While under-cultivation is more commonly the cause of poor results, over-cultivation often gives uneconomic returns which are difficult to explain. This most frequently occurs where an area is being cleaned for twitch, creeping fog, or some other weed, the result being that in the effort to clean the soil it is worked to the fineness of cement in dry weather, and seed sown under such conditions cannot give good returns.

The time factor in cultivation is the most important feature, and the agriculturist must exploit it to the best advantage.

Use of Fallow

Too little use is made nowadays of the fallow as a preparation for the crop, but in Canterbury, at any rate, it is almost impossible to establish grass successfully without using this method. Fallowing does not mean ploughing over and then forgetting about it. It means the frequent moving about of the soil throughout the period of rest. The length of fallow depends on the previous crops and the weed-content of the land itself. It is not contended that every crop should follow a fallow, but it is suggested that the rotation should be so ordered as to allow the maximum time to elapse between each crop to enable the following crop to benefit to the full from the cultivation given to the land throughout the period.

It is obvious, therefore, that following an autumn-harvested crop by an immediate autumn or winter-sown crop is not recommended. In many cases this would mean a reorganisation of the rotation if it is to be avoided. Too frequently, under the cloak of efficiency, is stubble land rushed back immediately the crop is off into grass, green feed, Italian ryegrass, or some other crop with poor results, which further jeopardises what often is already a precarious feed supply. There is also the other extreme of allowing stubble land to lie uncultivated through late autumn and winter as it will not be required for sowing until the spring.

"Dry" Farming

Arable farming is confined to districts which have a suitable contour,

average soil, and a moderate rainfall, the last of which is essential if crops are to be ripened and harvested in good condition. Unfortunately, moderate rainfall areas also are subject to periods of drought, and in such areas the lighter the soil the greater the effect of dry conditions. It should therefore be the aim in preparatory cultivation to strive to preserve as much moisture as possible so that the crop will not depend absolutely on rainfall received during its growing period.

Carried to the extreme, this practice is commonly known as "dry farming." While there is no need to practise "dry farming" methods on New Zealand's arable land, there is definitely the necessity to conserve soil moisture so that quick germination results and

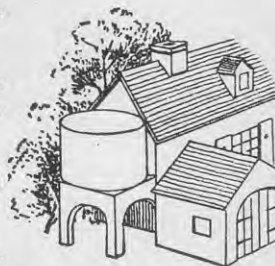
CONCRETE for Permanence

There are many uses about the farm—and the home—for good concrete.

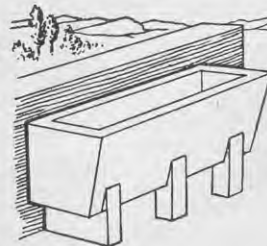
Water tanks, silos, troughs, yards and paths are more durable and economical, if made with concrete.

For complete satisfaction specify Wilsons Portland Cements.

"Star" Brand for durability and permanency. "Wilsonite" Rapid Hardening cement where speed is essential. "Repello," the genuine water-proofed brand for tanks, troughs, etc. Send now for descriptive booklets.



TANKS



TROUGHS

WILSONS N.Z. PORTLAND CEMENT

LTD.

SOUTH BRITISH INSURANCE BLDGS., SHORTLAND STREET, AUCKLAND.

5976