supplying plants for the establishment of the white-clover trial here, some 4,000 clover plants were sent to the Marton Experimental Area for the establishment of a trial employing the white-clover technique. At the present time a further 16,000 plants are being produced from one original plant received from the Plant Research Bureau, Palmerston North. This plant bears a distinctive red marking which should make it relatively easy to keep clear of other types of clover.

General Work.—Although many small jobs have had to be attended to since commencing the Station's activities, several major operations have been started. A considerable amount of fencing has been erected, but the completion of this awaits the supply of suitable fencing-wire. A start has been made in the felling and removal of trees behind the homestead. Plans have been drafted for the erection of a new set of farm buildings which will replace those at present on the Station and allow of the consolidation of all activities in one building. It is hoped that a start in the erection of the new farm buildings will be made within the next two months.

Estimation of Available Plant-food

Methods of estimating available plant-food are being tested on a variety of soil types with a view to finding that most reliable for use in advisory work. The Mitscherlich pot-culture method is selected as a standard for comparison. Among methods in course of investigation are the Neubauer seedling method, Dyer's citric-acid extract, the Egner lactate extract, various extractants of Bray, and the methods of Burd and Murphy.

At the experimental area of the Soil Fertility Research Station soil treatments cover a very wide range of phosphatic dressings. The available phosphate in representative samples has been estimated by a variety of methods. These differ considerably in their estimate of the order of fertility. Results will be correlated against growth in pot culture.

Serpentine-superphosphate.—The response of oats to serpentine-superphosphate and a number of phosphatic compounds on Egmont brown sandy loam, a soil particularly responsive to serpentine-superphosphate, is being determined in pot cultures with a view to finding where the particular advantage of serpentine-superphosphate lies.

Minor Element Experiments.—A preliminary experiment on permanent pasture with lime and molybdenum combinations has shown a response to molybdenum on Okaihau gravel loam. A more comprehensive experiment is in the course of being laid down, and also one with other minor elements.

Observational molybdenum strips on ten Waikato soil types have shown little response. A small preliminary trial has been started in a lucerne paddock in the Bay of Plenty.

A positive effect of molybdenum on yield of oats in pot experiments was demonstrated in the case of Hamilton clay loam and Egmont brown sandy loam.

Lime Requirement of Soils.—There is an urgent need for increasing the practice of liming in New Zealand and using the limited supply available to best advantage. Soil analysis can play an important part here, for the lime status of a soil can be very clearly revealed by chemical methods. The laboratory staff is at present being built up to deal with a great volume of samples. A field test has been elaborated which should be capable of giving reliable results in the hands of field officers. A limited number of outfits are being issued at the moment, but, contingent upon favourable results, the service will be extended.

A method of assessing the rate of reaction of various limestones has been further developed and should prove useful.

Quick-test Methods.—Following on from an investigation into sap analysis as a method of detecting mineral deficiencies, more rapid plant-tissue tests, notably the Purdue methods, have been tried out in the Bay of Plenty and Waikato districts. These methods are regarded as having considerable value.