

much shorter time, indeed, than is necessary for the boiling of water. When the soft-soap is dissolved put both delivery and suction ends of the spray-pump hose into the oil and work the pump steadily, at the same time pouring in slowly 2 gallons of cold water. Then dilute to the required strength. A very satisfactory emulsion is thus secured, far more rapidly than by the ordinary method. The great advantage of this modification is that a large quantity of oil can be dissolved with the soft-soap and can be put aside until such time as it is required. When spraying is to be done the prepared oil should be stirred well and the necessary amount put into the spray-tank, when, with the aid of the hose and pump, an emulsion can be made rapidly. In general, half a gallon of water will turn each gallon of oil into a satisfactorily thick emulsion. The great advantage of this simple modification on the ordinary method is that no time is wasted at the time of application by having to heat water.

PASTURES :

INFLUENCE OF MANURES ON THEIR FEEDING-VALUE.

PRIMROSE McCONNELL.

AN experiment to determine the influence of manures on the feeding-value of pastures was commenced at Ruakura Farm of Instruction in June of last year (1912), and, there being considerable variance of opinion as to the value of the various phosphatic manures for top-dressing purposes in the district, the experiment should ultimately prove of considerable value to farmers in the Waikato. The paddock chosen for the purpose had for some years previously been well manured and cultivated throughout the general cropping rotation, and on this account it was not expected the manuring would give a profitable return the first year of the experiment, as it certainly would have done on a worn-out pasture. The experiment will be doubly interesting from the fact that it will show how soon the "no-manure" plot becomes exhausted.

When the experiment commenced the percentage of grasses over the whole paddock was as follows: Cocksfoot, 17 per cent.; ryegrass, 20 per cent.; meadow fescue, 3 per cent.; sweet vernal, 1 per cent.; Yorkshire fog, 2 per cent.; crested dogstail, 2 per