



ROUND THE RESEARCH STATIONS

Current Work and Findings in Department of Agriculture and Department of Scientific and Industrial Research Trials and Experiments

Ruakura

Winter Management of the Dairy Herd

Two herds of identical twin cows are being used at Ruakura Animal Research Station to contrast

two systems of wintering. The more orthodox method of saving a small quantity of autumn-saved pasture and the feeding of hay and silage reserves late in winter is being compared with one in which reserves are fed out in late autumn-early winter, during which a large enough area of pasture is saved to feed grass alone from mid June onward.

Apart from providing information on the differences in overall production between these two systems, observations are being made on the effect of feeding cows before calving on a silage ration as against an all-grass one. Records are also collected on the incidence of metabolic diseases and of pasture production. Keen interest is being taken, too, in the amount of pugging, both by stock and machines, which occurs under the two systems of wintering.

Plant Chemistry Division

Pitfalls in Control of Bloat by Spraying

Since an article on the prevention and treatment of bloat appeared in the July 1959 issue of the "Journal" many farmers have adopted with

complete success the method of spraying pastures it recommended. In every case where failure to achieve complete control was investigated by the Plant Chemistry Division of the Department of Scientific

and Industrial Research it was found that the farmer had failed to carry out the procedure correctly.

The most common faults were:

1. Spraying with material that had not been properly emulsified. This was mainly due to use of the wrong type of emulsifying agent, that is, the detergent used for cleaning milking machines. The emulsifying agents recommended are:

"Lissapol NX" or N300, "Standard Vacuum CN", "Shell p.40".

When the fat or oil is not completely emulsified it floats on top of the water. This means that during spraying a large area is covered with water and only a small area at the end receives the concentrated anti-foaming agent. It is not easy to tell whether a proper emulsion is formed by looking in the top of the drum. If there is any doubt, the mixture should be collected in a tin as it comes through the nozzles and examined to see whether it is in the form of an emulsion.

Care must be taken to ensure that the hoses and pump are properly connected without air leaks; otherwise air bubbles can cause frothing rather than the formation of an emulsion.

2. The average rate of application of emulsified fat or oil necessary to control bloat is 3 oz per cow per day. Where a farmer has short pasture or has to spray a large area the rate probably will have to be increased to 4 oz per cow per day. Several farmers have achieved complete control with 4 oz where 3 oz was found to be insufficient.