

Various patterns in roping are used, the most ordinary being the sectional method just described, every rope passing over the apex, and a lozenge-shaped arrangement in which the ropes cross each other on the sides of the roof in diamond pattern.

#### CARELESS STACKING.

is but too common. Some persons may read the above remarks with impatience, but they are nevertheless according to good practice. To any one who has been brought up in the school of careful farming the loosely made irregularly-formed ricks now too often seen seem to him to be slovenly and unworkmanlike. Laying on sheaves with a fork appears to him quite inconsistent with good work, and sheaves laid on anyhow and with no attention to the set of the butts savours of men untrained neatness of execution.

#### TRIFOLIUM.

Where wheat land has been cleared a large breadth of trifolium has been got in during the last few days. The cultivation is exceedingly simple, and consists in harrowing in 20 lb. of seed per acre on the stubbles. The success of the crop largely depends upon its being got in during August or early September.

JOHN WRIGHTSON. (1)

### THE DAIRY

#### FOOD IN WET WEATHER.

The present summer, so far as it has passed, cannot be reckoned an over average one in the Dairy Department, though, perhaps, it is quite as good as we have lately been accustomed to. The outstanding reason of this is the excessive rainfall which we have had all through the haymaking season, and which, it is possible, may continue through harvest, though we have had intervals of hot sunny weather now and again. But a cold wet time is just as great a drawback in the dairy as it is in the cropping world. We do not, of course, have the plague of flies so badly in such a season, for bright sunshine is needed to develop these in all their intensity; while a warm, sunless day is that in which the cows manufacture the most milk, and with the greatest comfort to themselves. Cold wet weather, however, has two drawbacks to it in connection with cows: first the physical discomfort to the animals themselves such as a human being feels when out in the wet; and, secondly the additional discomfort of cold, watery food. It is a great help in our own case to be able to get a good, comfortable, square meal after we have been out in the storm, and the knowledge that something of this kind is in store for us enables us to brave the elements with impunity. But if we had to work on in the wet and cold without any compensation of this kind, it would indeed be hard lines, and it is just possible that many would succumb. Yet this is exactly what many animals of the cow kind have had to stand all summer. There is not only the wet hide and the cold, but the natural food is not up to its usual quality, so that those animals which have to make milk on the food they pick for themselves have fallen on evil times indeed. In a wet, sunless summer, the grass and other crops do not contain anything like the same nourishment, weight for weight, which they do in a good season. There is a much larger proportion of water in their composition, while it is doubtful if even the lessened amount of solid matter which

remains contains the same proportion of nutrient ingredient as before. Thus animals left to look for themselves have more to endure from adverse external circumstances, while they have less inside to enable them to withstand it, in seasons like the present.

The effect of this is easily seen in the produce. It may continue in similar quantity as it would do under more favourable circumstances—it might even be yielded in larger quantity—but the quality is rendered ever so much inferior. Cheese-makers and butter makers are aware of this, for they find they cannot get so much produce from a given amount of milk as they do in a more genial summer. Now it is part of the mission of man to counteract the evil deeds of nature, and beat her, and achieve success in spite of adverse surroundings. This is especially the case in farming which might almost be defined as a perpetual fight with the above mentioned dame, trying to bend her to certain ends or purposes. If our cows have to fill their rumens with large quantities of watery grass, then we must help up the total solids and the albuminoids ratio with some concentrated food indoors. Naturally the one which will occur to the minds of most farmers will be cotton cake, but it is worth while again repeating the warning that it is very easy to spoil the cheese or butter, as regards flavour, by a careless use of this concentrated food. The late Dr. Voelcker recommended the undecorticated form for use in spring and autumn, when the grass was more watery and laxative, and its use may be recommended here for a summer like this, where the laxative state of matters becomes normal right through the season. But Dr. Voelcker gave a stronger recommendation to a mixture of beans and oats ground up together for dairy purposes, as yielding good results without any of the trouble pertaining to cotton-cake. But meal, has one serious drawback which does not obtain in the case of cake; it requires to be mixed with water and to be used fresh. Meal must be made into dough or mixed with chop and water before cattle can use it, and all this means extra daily labour. Cake is an exceedingly handy material. A heap of it can be passed through the breaker at intervals when other work is not pressing, and be thus kept in readiness, while it is easily and quickly divided among the cows while in-doors at milking-time. It seems to us, therefore, that a food which could be handled as a cake, but which at the same time had all the desirable qualities of ground beans and oats, would be a great acquisition on a dairy farm. We do not know if the manufactured cakes advertised by certain well known firms approximate to the points we have mentioned, and it is not our business to puff them: but if they do come near this standard then they cannot fail to be valuable foods.

The operation of mixing or damping meal does not give so much trouble in winter time, because a lot of other similar work has to be carried out in any case, while in a season like this some extra food must be given. The benefits to be derived from the consumption of tares or other green forage are not very manifest. Such crops participated in the watery and weak composition common to all in a season such as this, while the pastures are generally overflowing with grass such as it is, and the stomachs of the cows are crying out for something dry and concentrated. In a hot dry summer green succulent forage is of the greatest importance for making good the deficiencies of the bare hard pastures, but we must make a change and manipulate our materials in another way when the season is different.

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**WINTER RATION FOR DAIRY COWS.**—Kindly give me your advice on winter rations for my cows. They are ordinary sized Suffolks, kept solely to supply new milk, quality no object. I want to keep them on produce of the farm as near

(1) I fear we are too far north for this crop.

A. R. J. F.