is likely to be a deficiency of protein. The sugar-beet tops are of value, approximately 25 lb. of tops being equivalent to 40 lb. of mangels. They should be fed, however, only after being allowed to wilt for about a week.

## RED-WATER IN STOCK.

## R. E. C., Frankton Junction :--

Please advise about red-water, which is said to be prevalent among cows being fed on new grass.

## The Live-stock Division :--

Certain farms and pastures are notorious for what is called red-water. This is especially true of pasture containing much cocksfoot, and in this country if the soil is of a peaty nature, or is badly drained swamp land, new grass may be associated with this disease, as also may green oats, but not so consistently. Turning cows on to turnips, especially if they have had a touch of frost, or on to roughage such as tall fescue, maize-stalks, and weeds, is conducive to this disease, especially when the cows have not had sufficient hay to make a reasonably balanced ration.

As far as is known from extensive investigation here, the disease is of purely dietetic origin, and is now not so prevalent, owing to animals being better fed and land being better drained and treated.

When this disease appears in a herd, usually several animals are affected, and one of the first symptoms noticed may be the passing of reddish-coloured urine. Animals go off their feed, look sick and dejected, and may suffer from diarrhœa or constipation, and they are very anæmic. In several cases the symptoms become more pronounced and animals may go down and be unable to rise, or they may stand with their heads down, shivering, breathing heavily, and unsteady on their legs. Death takes place in two or three days.

**Treatment**: Remove animals from feed they are on, give them good hay, and have them in comfortable surroundings. If thought necessary put covers on the sick ones and try feeding them with some crushed oats and bran and salt. Give a  $\frac{1}{2}$  lb. each of Epsom salts and common salt dissolved in 4 lb. of black treacle and oatmeal gruel, milk, and eggs, &c., in very bad cases. There is no reason why you should not drench the cow with her own milk. After this, 2 oz. of common salt dissolved in two quart bottles of milk may be given daily as you think best, and discontinued when you wish, according to the progress made. A tonic may be given after. To endeavour to prevent this disease when feeding upon roots, allow a reasonable amount of hay and do not keep animals on the new grass too long. Change them frequently to different feed.

