

Cambridge, Hertford, Kent, Surrey, Sussex, and Hants. It is not impervious to severe frost during its early stages of growth, especially if the frost follows a wet autumn.

Deep calcareous loam is the most suitable soil for its growth, where its taproot may easily penetrate to a considerable depth, and be thus comparatively independent of rain.

For sheep, perhaps, it is the most valuable as, growing vigorously, it may be eaten off by them four times in a season. Some horses do not take so kindly to it as they do to trifolium or vetches, owing to its being somewhat bitter in the juice. In a short time, however, they become accustomed to it.

I would caution sheep farmers when first turning their flock into it to carefully watch the ewes, and even the lambs, as they are apt to "blow," especially when taken into it with quite an empty stomach. (1) In such case they are sure to eat ravenously. Shepherds quickly get accustomed to its danger in this respect. Cleanliness is essential to success; some writers go so far as to say that the most satisfactory results are obtained by first sowing in wide drills, keeping the ground afterwards clean by hoeing. This is not my experience, nor would I recommend such a plan, on the score of labour entailed in this detail of cultivation. I have seen it succeed for ten years without once cleaning the land after it was sown. Therefore, on this evidence I cannot add to its expense by recommending a constant use of the hoe. A thorough preparation of the land previous to sowing the seed is advisable, not only in point of cleanliness, but in enriching the soil sufficiently to carry the crop over a term of years noted. A turnip or swede crop, followed by oats or barley. With either of the latter, if the seed be sown, a reasonable chance of success is assured. Deep ploughing and the preparation of the seed bed to ensure a thorough tilth are elements of success not to be lightly disregarded. The month of March, along with either of these cereals, is a good time to sow the seed. After the latter is drilled or sown by hand, as the case may be, the lucerne may be sown at the rate of half-a-bushel to an acre by the aid of the hand seed-barrow. The final harrowing for the cereal is all that is required for the lucerne. (2) At the end of September the crop

following the harvesting of the corn may be mown, but it is not advisable to allow sheep upon it the first season, or even the second, as they are apt to injure the crown of the plant by biting too low. The whole of the crop should be mown as often as desirable.

The third season, if all has gone well, the whole crop can be given to the sheep if required by the exigencies of the season. Should grass grow freely amongst the plants after a few seasons' growth, as it may do if several winter dressings of manure are applied as a top-dressing to the surface; a couple of turns each way with iron harrows would scratch portions of this weed from amongst the plants. The early part of October, if the weather is dry, would be a suitable period for this work, and would tend to cleanse the ground, and subject the lucerne less to smother and weakly growth.

E. MOLYNEUX.

WHEN SHOULD MANURE BE SPREAD.

(B. M. VAUGHN).

On the question of the advisability of spreading manure in winter on frozen ground, opinions expressed in recent issues differ so radically that it seems as if the experience of some of our manure specialists might be of interest. Or perhaps it would be still better to have the opinions of practical farmers on the subject, and have each one, in addition to his opinion, answer the following questions about the land on which his manure was spread and give other attendant circumstances, upon which his opinion is based: Upon what kind of soil and how far down from the surface is the water level in this soil? Was the land steep, gently sloping or nearly level? Was your land in sod or not? If the soluble parts of your manure washed out, would it wash beyond the limits of your own farm? What kind of manure did you spread upon frozen ground—coarse or fine? How deep was your ground frozen? Was there snow blanket enough on during that winter to permit the ground to thaw out first from below? What did you intend to use your land for in the spring?

Some or all of the facts and conditions called out in the answers to the above questions may furnish reason for the opinion of the farmer in each case, whereas another farmer surrounded by different conditions might be justified by experience in adopting a different course. Our own

(1) Let the sheep fill their bellies and then turn them in; but it is not the best way to consume lucerne. Ed.

(2) Always roll afterwards. Ed.