

its perpetuation. Subterranean clover is a good winter grower and thrives well with liberal topdressing. Where subterranean clover is included in a mixture half should be of the Mt. Barker strain and the remainder should be Tallarook, which seeds later, thus ensuring a better spread of feed.

Montgomery red clover is a valuable species for inclusion with white clover. It is easily the best summer producer, but unlike white clover it has not the capacity to spread in a pasture other than through reseeding, and it will not withstand close grazing to the same extent. Though usually classed as a perennial, it is not as permanent as white clover.

Lotus major, also a perennial, thrives on land too wet and cold for other legumes to do well. Experience has shown that though it is usually slow to establish, once it gets a hold it will spread and produce well, even where phosphate topdressings are not regular.

Both for raising the clover percentage quickly and also for stepping up production from the sward to the highest possible level, the sowing of Certified clovers with the initial topdressing is of prime importance. Even

where clover already exists in reasonable quantity oversowing with the best type is still recommended, as experimental results have shown that it is more vigorous and productive under these conditions than are the naturally occurring types.

Time of Sowing

Autumn sowing has over the years given the most satisfactory results. Though good strikes are often obtained in spring, establishment is generally poor, because the spring and early summer flush of grass usually overwhelms the young clover plants. Oversowing should be done as early as the autumn rains will allow. The ground should be moist enough to prevent its drying out before the seedlings have established themselves properly. Given these conditions, March is the best month. Sowing after April is likely to give disappointing results, as clovers do not strike well once the ground temperature drops and the days are short.

Preparation of Pasture

Unless the seed falls close enough to the ground for the rootlet of the seedling to make a quick contact with moist soil, the seedling has little or no chance of survival. For this reason the pasture should be reasonably short. If the sward is open as

well, the chances of securing a good strike are considerably increased. Any roughage should be cleaned up with cattle. Their hooves will also open up the turf. It is sound to drive stock over an area immediately after oversowing, as this pushes seed into the ground and shakes seed suspended in the leafage downward.

Subsequent Treatment

The area should be closed to stock, usually for a month to 6 weeks, while germination and early establishment are proceeding. Subsequently the chief aim in management should be to strike a balance between undergrazing and overgrazing. Just as much harm can be done by undergrazing as by overgrazing.

If the autumn flush of grass is allowed to get away, it will smother out much of the clover. The young clover plants must be able to get their leaves into the light if they are to survive. The whole area should be grazed off quickly with a big mob of sheep by the on-and-off system. The grazing should be quick but not hard. The area should then be spelled for 3 to 4 weeks. This management should be repeated until the clover is well established.

The value of careful management before and after sowing cannot be over-emphasised and no effort should be spared to keep conditions as near the ideal as possible to give the establishing seedlings every chance of survival.

If full advantage is to be gained from the extra growth, it must all be eaten, but too frequently this is not fully appreciated. The extent to which this is done is usually a fair measure of the success achieved and the returns obtained for the expenditure of oversowing. If the pasture is not effectively controlled, not only will the stock suffer, but the pasture itself will go back and the build-up in fertility will be greatly reduced.

Sixty Years of British "Agriculture"

"AGRICULTURE", the monthly journal of the British Ministry of Agriculture, was 60 years old in September of this year. Since September 1894 it has maintained an unbroken service to the farming community in England and Wales and readers overseas, steadily widening its scope and influence and recording and evangelising new methods and ideas throughout a period in which there have been more vital changes than in any other comparable time. Contributions from the highest technical authorities with articles by farmers, market gardeners, and fruit growers have shown it to fulfil its claim as a clearing house of agricultural knowledge and experience.

To commemorate the occasion the Ministry has issued a special diamond jubilee number which, while surveying the tremendous progress of the past 60 years, also looks forward, through the eyes of several eminent agriculturists, to the future. An enlarged art section presents a portrait in miniature of the countryside of England and Wales.

Copies may be obtained from H.M. Stationery Office, P.O. Box 569, London, SE1, at 1s. per copy, post free.

Rack for Feeding Hay to Sheep and Lambs



THE rack illustrated, which holds approximately a bale of hay, has been found very suitable for the feeding of small quantities of hay to sheep or lambs. It is of medium weight, which makes it easy to move from paddock to paddock.

Timber required for its construction is as follows:—

Sides			Ends		
Dimensions	Length	Number of pieces	Dimensions	Length	Number of pieces
3in. x 1in.	5ft. 6in.	4	3in. x 1in.	2ft. 6in.	2
3in. x 1in.	3ft. 6in.	4	3in. x 1in.	3ft. 2in.	2
2in. x 2in.	3ft. 3in.	4	3in. x 1in.	3ft. 11in.	2
			3in. x 1in.	4ft. 9in.	2
			2in. x 2in.	3ft. 6in.	4
			4in. x 3in.	5ft. 6in.	2

The timber for the sides is bolted together with $3\frac{1}{2}$ in. x $5/16$ in. carriage bolts, 16 bolts being used for each rack. The sides are covered with sheep netting. The wide ends of the rack eliminate any danger of its being tipped or blown over.

—W. STEER, Farm Manager, Department of Agriculture Irrigation Research Station, Winchmore