

Otago conditions white clover appears to grow without seeding in many localities whenever water is applied to the soil. Where such is the case there is little need to use white-clover seed in the mixture.

SOWING.

As with lucerne, a good seed-bed will give the most satisfactory results, and neglect of this has often resulted in many unsatisfactory soles of grass being obtained. The aim should be to obtain a seed-bed with the soil fine, firm, and moist, as against one that is open and lumpy with a tendency to dry out, thus causing the death of the seedlings. Generally speaking, the ground should be ploughed in the autumn and allowed to lie exposed to the winter frosts. In the spring it should be double disked and harrowed, after which the leveller should be used to eliminate small surface inequalities. Sowing may be carried out from the beginning of November to the middle of February. If sown too early or too late, damage by lifting of the soil as a result of frosts is likely to occur. Broadcasting the seed with a hand-seeder of a good type is quite satisfactory. Where a grass-seed attachment is used in conjunction with the ordinary grain-drill, care must be taken to sow the seed as shallow as possible. If it can be sown on the surface and then harrowed in by either a brush or wire-netting harrow (described elsewhere), so much the better. The use of a nurse-crop in sowing down grass, although often adopted for economical purposes, is not recommended.

Care must be taken to see that the ground is sufficiently moist at the time of sowing to ensure a good germination. In actual practice it will usually be necessary to irrigate the ground prior to sowing, following the irrigation by a good harrowing. The importance of using good seed of high germination and freedom from weed-seeds cannot be overstressed.

Where grass is being laid down on a steep sideling it is rarely advisable to plough the ground, on account of the liability of serious erosion taking place when water is applied. The practice to be adopted in such a case would be to give the ground a good double disking and follow this by harrowing. Sowing can then be carried out in the usual manner, and although such conditions cannot be regarded as ideal a good strike will usually be obtained.

IRRIGATION OF GRASS.

A grass pasture, on account of the great growth made throughout the season, requires frequent irrigations to maintain a fresh luxuriant flush of grass. The principles outlined for the irrigation of lucerne apply equally to the irrigation of grass. The system of irrigation adopted will to a great extent be regulated by the grade of land upon which the grass is being grown. For moderately flat lands either the border method or the close-furrow method can be adopted. On steeper land contour irrigation will be practised. From the time of sowing until the grass is well established is the most critical time in the management of a grass pasture. The length of time between irrigations will depend upon the type of soil and weather conditions. The applications of water need not be heavy, but should be given at frequent intervals to keep the surface of the ground moist. It is to be remembered that, as the roots of grasses are comparatively shallow, light