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MANAGEMENT OF DRY LAND LUCERNE IN THE SOUTH-WEST

By R. SPRIVULIS, Agricultural Adviser, Bunbury

MANY dry land lucerne stands have been successfully established in the dairying areas of the South-West. With good management these can remain productive for many years; poor management can greatly reduce their productive life.

The life and production of a lucerne stand depends on

- properly timed cutting or grazing
- adequate fertilising
- keeping the stand free from weeds and pests.

Growth pattern

Successful management is based on an understanding of the growth pattern of the plant.

The dry land stands of the most commonly grown lucerne variety, Hunter River, produce most of their bulk in the spring and early autumn.

Lucerne responds readily to the early autumn rains and keeps growing vigorously until the end of June. In July and August, poor drainage and low temperatures slow the growth rate or cause a short dormancy period.

In September, increasing day length and temperatures stimulate the plant to start active growth. The peak of growth is usually reached in the late spring, but it is not uncommon to take the last good cuts of hay as late as January.

Due to shortage of moisture in summer, relatively little growth takes place in February and March.

Fertiliser requirements

In most situations, annual fertiliser requirements are met with two bags of superphosphate and 1 cwt. of muriate of potash. Taking into consideration the phosphate-fixing and sulphur-leaching properties of soils in the high rainfall dairying areas, it is better to apply superphosphate in two dressings, half in the autumn and half in the spring.

Muriate of potash is usually applied in the autumn to compensate for the potassium removed earlier in the hay crops.

The autumn fertiliser dressings are usually timed as close as possible before the general autumn rains. The best time for the spring dressing is after the "weeding" cut or heavy grazing in September.

Trace element requirements are the same as for clover pastures.

Cutting or grazing

The time to cut or graze is when the plants are just beginning to flower and when new shoots appear at the crown.

Cutting usually offers the best way of managing a stand. Timing of the first spring cut is very important. It must be aimed so that the winter weeds no longer recover and that there is still enough time left (about 12 weeks) for at least two hay crops.

Lucerne persists only under cutting or controlled grazing. Continuous or too-frequent grazing leads to the exhaustion of the root nutrient reserves and the plants die. Perennial grasses such as couch and kikuyu are often introduced into stands of lucerne by seed via animal droppings. They cannot be effectively controlled and can reduce the life of the lucerne stand very quickly.

Pest control

The most common pests are the lucerne flea and the red-legged earth mite. Both
are autumn and winter pests and do most of their damage when plant growth is slow or dormant.

Satisfactory control of these pests can be had by applying one of the following chemicals (trade names in brackets): imidan (Imidan); dimethoate (Rogor); methidathion (Ultracide); and omethoate (Folimat). The most efficient time to apply the treatment is after the plants are cut or grazed down.

Climbing cutworm can occasionally damage lucerne in summer. As the use of organo-chloride compounds is not permitted for fodders used for milk or meat production, Carbaryl is the currently recommended insecticide for control of climbing cutworm.

Weed control

With age, dry land stands of lucerne accumulate winter-growing weeds, particularly grasses such as Wimmera rye and barley grass, which are encouraged by the increasing level of nitrogen under lucerne.

Annual grasses can be controlled by winter treatment with paraquat (plus a wetting agent). Before treatment, the stand must be grazed or cut, and spraying should be done as the weeds start to grow. Lucerne is dormant at this stage, and although it can be "scorched", it will recover.

The most effective way to control the winter-growing broad-leaved weeds is by a "weeding" silage cut in September.

RURAL EMERGENCY CARRY-ON

The State Government will make funds available to enable a cropping programme to be carried out this year.

This assistance is available to married farmers who to date have resided with their families on farms which are their main means of support and who have been refused carry-on assistance for this year by their bankers or their normal sources of credit.

The maximum assistance is $2,000 and is available to cover the cost of:

- Superphosphate to a maximum of $1,000 for the planting of a minimum of 500 acres of either wheat and/or barley.
- Other seeding expenses.
- Harvesting expenses.
- Crop insurance.
- Subsistence up to $70 per month from May to December.

The security required is a first crop lien over the crop to be sown. It will be the applicant's responsibility to arrange with existing creditors that no caveats are lodged against the registration of the lien and also to take out crop insurance in due course.

Application forms which provide further details are now available from Trading Banks.