



# PASTURE TIMELINE

## TACTICS FOR MAINTAINING AND INCREASING SUB CLOVER CONTENT WITHIN AN EXISTING PASTURE

Autumn 	Winter 
<b>Germination &amp; seedling establishment</b>	<b>Growth of leaves &amp; rosette</b>
<p><b>Plan</b></p> <p>Assess the success of sub clover recruitment within the context of the timing and strength of the break.</p> <p>Use this information to assess the vigour of the sub clover seedbank and the potential need to increase it.</p>	<p><b>Graze</b></p> <p>Intensively graze or set stock to achieve a minimum of 800 to 1000 kg DM/ha, promoting clover leaf and shoot growth and controlling companion grass growth.</p> <p>Some annual grasses may tiller more in response to this strategy and require a parallel control strategy to reduce competition with clover.</p>
<p><b>Fertilise</b></p> <p>Apply fertiliser to supply limiting nutrient requirements before the break. Consider the need to include molybdenum where it's deficient.</p> <p>Include copper if know to be limiting.</p> <p>Aim to maintain pH above 5.2 (water).</p> <p>Use nitrogen fertiliser cautiously to manage negative effects on clover presence and nitrogen fixation.</p>	<p><b>Spray</b></p> <p>Spray to control broadleaf weeds only if required.</p> <p>Use herbicides at biologically appropriate times (autumn, winter, spring).</p> <p>Select herbicides that are compatible with legumes but effective against the target weeds.</p> <p>Apply herbicide after the minimum recommended stage of clover development (often at least 3 trifoliate leaves), at the recommended rate and stage of weed development – in that order.</p> <p>Aim to avoid herbicide use that can reduce sub clover seed set or viability.</p>
<p><b>Graze</b></p> <p>Defer grazing to encourage germination and seedling growth and establishment.</p> <p>Plants with 3 or more trifoliate leaves can withstand grazing.</p> <p>Plants at the cotyledon stage are particularly vulnerable. Check for RLEM and consider control.</p>	



## Spring



### Growth, lateral shoot development & commencement of flowering

#### Plan

Assess the population of sub clover plants and % contribution to feed on offer. Plan to target 30% clover contribution by mid spring in improved pastures.

Assess plant vigour, identifying limiting factors and plans to address them. Assess plant size, leaflet size, leaf colour, root nodulation and nodule colour.

Assess if RLEM damage on clover leaves is evident. Consider a spring Timerite spray with insecticide to reduce RLEM in autumn.

#### Fertilise

Soil test to identify limiting nutrients.

#### Graze

Graze to 800 to 1500 kg DM/ha to control grass growth and allow light penetration to clover leaves. More runners and leaves means more flowers and seeds.

High intensity grazing in early spring can retard grass seed head development and assist clover competition. This tactic will also assist in reducing RLEM populations.

At the commencement of flowering aim to avoid overgrazing or selective grazing of clover leaves. Aim for a maximum of 2000 kg DM/ha

#### Cut

Cutting to top elongating grass growth in early spring can reduce grass competition with clover if grazing control is insufficient.

However, because sub clover is a spring

flowering annual, cutting for silage or hay will not benefit sub clover regrowth sufficiently following the removal of grass competition. Rotate forage conservation paddocks to reduce consecutive negative impacts on sub clover.

#### Spray

Where RLEM is a significant limit to clover production, consider using a Timerite strategy to reduce pest populations. A mid-October spray can kill adult populations before summer resistant eggs are laid. Integrate spray control with grazing control to increase UV exposure to the pest. Identify the Timerite date for your property.

## Summer



### Flowering, seed set & burr burial, plant senescence & death

#### Plan

Identify where competitive annual grasses are a problem and prioritise paddocks for their control to reduce competition with annual sub clover.

Identify where an overburden of dry grass biomass or residue may limit sub clover seedling recruitment.

Plan to remove this residue by March.

#### Graze

Avoid overgrazing the pasture to protect the developing clover burr. Progressively remove dead summer pasture mass and residue. This will assist sub clover seed ripening due to day/night temperature fluctuation, reduce inhibition of germination from chemicals released from grass straw and trash, and provide space for germination sites.

Where encouraging sub clover is a priority, target 800 to 1000 kg DM/ha at the break of season. Sheep will dig for sub clover burr when pressed, however the feed value is low and the behaviour accelerates an already poor resource management outcome. Avoid this.

## MAKE A DIFFERENCE

- Assess how much clover is present.
- Identify where change is needed.
- Combine tactics to increase clover vigour, growth, seed set and seedling recruitment.
- Address nutrient, grazing, pest, weed, herbicide and nodulation limits to clover performance to build a momentum for achieving 30% sub clover content in all permanent improved pastures.