

## 2. Ryegrass establishment

Paddock preparation for new pastures is just as important as paddock preparation for crops. Weed and insect control are paramount to the success of a balanced pasture.

When preparing your paddock consider:

- Controlling weeds with spray topping and knockdowns.
- Soil testing to determine soil fertility and fertiliser requirements
- Controlling insects especially Red Legged Earth Mites and Aphids

Ryegrass can be seeded before the break of season, however there is potential to lose viable seed if there is a false break. Some farmers on the Esperance sandplain sow pastures paddocks at different times after the break to achieve a staggered growth pattern throughout the year. This eases in grazing management as pastures are not ready for grazing at the same time.

Ryegrass germinates well (in 6 to 10 days) when daytime temperatures range from 10°C to 30°C<sup>8</sup>. The recommended sowing rate for ryegrass on a moderate rainfall (400–550 mm) is; 20–25 kg/ha for tetraploids and 15–20 kg/ha for diploids, when sown at less than 15 cm (6 inch) row spacing and at a depth of 0.5–1 cm.

This spacing is not achievable for many farmers in Esperance as the equipment available is designed for broad acre cropping with 22–25 cm (9–10 inch) row spacings. This results in a high density of plants in the row and bare ground between rows resulting in a lower plant establishment. A solution to this is to halve the sowing rate and cross sow which will increase plant density and achieve more even plant distribution.



*Germinating ryegrass at 20 days.*

### Establishment costs

The cost of establishment has been a major factor affecting adoption. It is common to find farmers sowing at a reduced rate, i.e. diploids at 10–15 kg/ha and tetraploids at 15–20 kg/ha to reduce costs. Total costs per hectare will vary depending on rate requirements and product selection. Table 2.1 illustrates what you might expect pasture establishment costs to be.

**Table 2.1:** Pasture establishment costs

Product	Rate / ha	Cost \$/ha
<b>Summer spray</b>		
Roundup	1.0 L	12.70
Ester 680	400 mL	3.50
Amsul	1%	0.35
Wetter	0.2%	0.52
<b>Seed</b>		
Tetraploids <i>Or</i>	25 kg	87
Diploids	15 kg	60
<b>Insect control</b>		
Post sowing pre emergent		
Talstar <i>Or</i>	100 mL	2.70
Lemat post emergent	100 mL	2.79
<b>Fertiliser</b>		
MAPSZC	65 kg	134.63
Follow up		
Amsul (if S levels are low) <i>Or</i>	150 kg	91.41
Urea	100 kg	94.49
<b>Total</b>		300-320

NB: These figures are correct at time of publishing and may vary to current prices.

Even at the above establishment cost, pasture is one third the cost of grain. The benchmark cost of dry matter (DM) for pasture is \$100–130/t DM. To achieve a cost of \$100/t DM, the farmer needs to consume 3t DM/ha (i.e. \$300/ha ÷ \$100/t)<sup>26</sup>. Assuming the farmer achieves 60% utilisation (this allows for ground cover over summer), this means 5t/ha (3t ÷ 60%) needs to be grown annually (assuming no regeneration in subsequent years). To produce 5t/ha over 175 days growing season (May to October) the pasture would need to grow approximately 30 kg DM/ha/day, which is below average for Esperance<sup>26</sup>.



*Weed control prior to seeding is paramount to ensuring good pasture establishment.*