

# Critical success factors in shrub-pasture systems

There are four key factors required for successful shrub-pasture mixes:



*Take care not to overgraze either the shrubs or the pastures. Treat them with respect and they will remain highly productive in the long-term.*

## 1. A mixed forage-pasture system is essential

- A mix of forage plants (shrubs, pasture and/or grazing cereals) provides livestock with the complete suite of nutrients and minerals.
- A mix of shrub species reduces the risk of losses through specific pests and diseases and increases the range of nutrients on offer to livestock.
- Pasture options for shrub-based systems include annual legumes and grasses and forage cereals.
- The best forage shrubs mix depends on soil type and constraints such as salinity and waterlogging.

## 2. Preparation and planning is paramount – start years ahead of planting

- Order tubestock well in advance, usually around 12 months before planting.
- Prioritise weed control in the years leading up to planting. This is important where there are dense stands of weeds such as brome grass and skeleton weed that take several years to control.
- Deep rip shrub lines at least 2-3 months before planting.
- Having adequate soil moisture at planting is critical.
- Plant seedlings with well-developed root systems that have been hardened off in the nursery.
- When direct seeding, always use fresh seed (less than one year old), and sow at a shallow depth (5mm).

## 3. Paddock layout can make a huge difference to establishment and utilisation

- Block plantings consist of shrubs planted at a higher density in a relatively uniform configuration.
- Alley planting consists of belts of shrubs alternated with alleys of pasture or crops.
- If planting shrubs to reduce wind speed use a mix of shorter and taller species.
- Shelter is proportional to the height of vegetation.
- Curved rows of shrubs allow protection from different wind directions.

## 4. Grazing management is critical – do not overgraze

- Grazing management is critical for both livestock and the shrub-pasture mix.
- Past experience is a major factor influencing diet selection. Management strategies can modify diet selection.
- Grazing annually keeps forage shrubs leafy and at a height accessible to all livestock.
- Rest periods between grazing are critical – set-stocking increases the risk of shrub regrowth being overgrazed.