

Hay and Silage Production: Geoff Robertson Vickery Bros.

The recent drought conditions which impacted on most of Australian agriculture highlighted the value of adequate on farm reserves of quality fodder. As spring approaches farmers should be therefore assessing the quantity and quality of conserved fodder required for the coming year and for a potential drought reserve. The decision can then be made as to how much needs to be produced on farm and what amount will need to be bought in.

Soil Fertility:

Tough conditions financially over the past two years have meant that some paddocks have been receiving less than sustainable levels of plant nutrient. Therefore paddocks that are being considered for fodder conservation should be soil tested to check that there is adequate soil fertility to ensure that enough good quality pasture is produced for harvest.

Target Soil Nutrient Levels:

Nutrient	Plant Growth
Phosphorus Olsen(P) mg/kg	15 – 20
Available Potassium (K) mg/kg	125 – 250
Available Sulphur KCL(S) mg/kg	10 – 25
pH Water	6
Aluminium	< 5%
Calcium	65 – 85%
Magnesium	6 – 18%
Sodium	< 6%
Potassium	0.4 – 0.5 meq

Nutrient Removal:

Fodder production removes a significant amount of nutrient from soil reserves this nutrient has to be replaced to ensure the continued vigour of pastures.

Nutrient Removal:

Fodder production removes a significant amount of nutrient from soil reserves this nutrient has to be replaced to ensure the continued vigour of pastures.

	N	P	K	S	Cu
Nutrient removed (kg/tonne/ha Pasture Hay)	30	3	15	2	15
Nutrient removed (kg/t) by a 5 tonne per ha Pasture Hay crop	150	15	75	10	75

Also pastures that are cut for hay regularly, not only suffer from low potassium levels but the high removal of calcium acidifies the soil, increasing soil aluminium levels requiring the application of Lime.

Plant nitrogen requirements can be met through the application of nitrogen as “boostas”, it is also important that the legume component of pasture is fixing adequate levels of nitrogen to contribute to total pasture needs. Plant tissue tests can be carried out to ensure adequate trace elements, particularly Molybdenum are available.

Fertiliser Program:

The following table outlines a “typical” fertiliser program that will supply the pasture with the required nutrients to achieve a sustainable fodder conservation program.

		N	P	K	S
Autumn	200 kg/ha SP 1:1		9	50	11
Spring	150 kg/ha Hayboosta	18	7	35	7
Total		18	16	85	18

Please note as conditions will vary on all farms a specific program will take into consideration a range of factors such as.

- Current nutrient status
- Pasture or crop type
- Target yield
- Future use of paddock
- Potential for grass tetany problems