

Wool grass – *Anthephora pubescens*

Wool grass, also known as Bottle brush grass, is a summer growing perennial forage crop. Plants are tufted and have a positive leaf/stem ratio. Wool grass is very drought tolerant. This grass is best adapted to areas where the annual rainfall is between 250 mm and 650 mm.



Strengths

- 3 to 6 t DM/ha/season
Depending on environmental conditions and management
- Perennial species
- Adapted to nutrient poor / sandy soils
- Drought tolerant
- Extremely palatable, high utilisation
- Good seed production
- Quality so good that even under relative low DM production the animal production/ha is high

Limitations

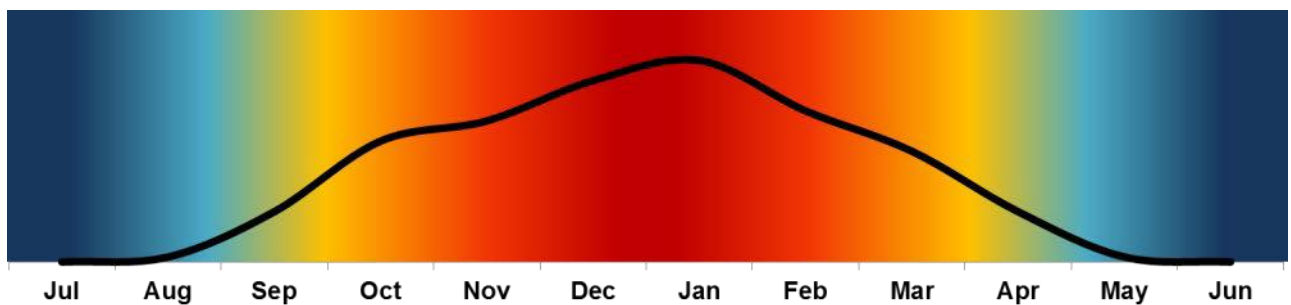
- Fluffy seed can be difficult to sow
- Not adapted to clay soils
- Does not tolerate flooding or waterlogging
- Does not tolerate irrigation, will develop rust



What can it be used for?

- Grazing:** For optimum quality, graze plants when in the vegetative stage.
- Foggage:** Wool grass retains its quality during winter (while dormant). Strip-grazing during this time optimised usage.
- Hay:** Produces high quality hay, but tuft profile is low and is better utilized as grazing or foggage.

Production potential: Yields are often in the order of 3 t DM/ha/season in the lower rainfall areas. Higher yields (up to 6 t DM/ha/season) can be achieved under more ideal growing conditions. This depends on soil fertility, environmental conditions and frequency of utilisation ^(1,2).



Relative growth curve of an established Wool grass stand - one year cycle

Metabolic disturbances in animals on cultivated pastures:

No toxicities have been recorded

Establishment

- Climate:** Wool grass is best suited to hot, dry conditions. It can withstand severe frost during the winter months.
- Moisture:** Very drought tolerant and established stands can survive in areas with annual rainfall as low as 175 mm. Successful production is possible in areas where rainfall varies between 250 and 650 mm per annum.





Soil: Grows well on sandy and loam type soils. It does not perform well on clay soils. A soil pH (KCl) range of 5 – 6 is recommended for optimal production.

Fertilization: Wool grass grows on infertile soils and is one of the most tolerant of low P levels. A soil analysis before establishment is essential ^(1, 2, 3).

	N (kg/ha)	P (mg/kg soil)	K (mg/kg soil)
Requirement for establishment***	10-20*	12-15	80-100
Seasonal application (kg/ha)	20-90**	Use removal rates	
Production - Removal rates (kg/ton):			
Good quality fodder	30	1.5	21
Average quality fodder	20	1.1	15
Poor quality fodder	11	0.7	10

*Fertilizer just after establishment (kg/ha)

**Selected rate should maximise profit

***Determined by production potential

Phosphorus (P) and Potassium (K) can be recycled back to pastures when grazed by animals. This is dependent on the grazing system and the type of animals used. Up to 40% of P and 90% of K can be recycled ⁽⁵⁾. It is however necessary to do annual soil analysis to determine the level to which recycling occurred. The difference should be fertilized.

Methods: Establish on a firm, fine, weed free seed bed. Consolidating (rolling) the seedbed after sowing/planting will ensure good seed-soil contact and subsequently better germination and establishment.





Our prescribed seeding rate:

Uncoated	Rows ^(1,2)		Broadcast ^(1,2)	
	AgriCOTE®	Uncoated	AgriCOTE®	
	7-10 kg/ha	10 kg/ha	7-10 kg/ha	10-15 kg/ha

Under ideal environmental conditions, combined with excellent seedbed preparation and equipment, the seeding rate of uncoated seed can be lowered.

Planting time: Optimal establishment periods are between October and February (or as soon as average minimum soil temperature exceeds 16°C), whenever rainfall is the most reliable.

Management

Utilisation: Graze during the vegetative stage ensures good quality fodder. The palatability of the grass subjects it to over grazing and uprooting of tillers, especially in the first season after establishment, may occur. Careful grazing management must be applied.

Cultivar

Wollie

Wollie is the most commonly planted Wool grass cultivar. This cultivar was selected for uniformity from a wild ecotype.

Resources

1. Pasture Handbook, Kejafa Knowledge Works, ISBN 0-620-31994-1
2. Tropical Forages - http://www.tropicalforages.info/key/Forages/Media/Html/Anthephora_pubescens.htm
3. Nutrient Requirements of Beef Cattle, 1984
4. FAO - <http://www.fao.org/ag/agp/AGPC/doc/Gbase/data/pf000175.htm>
5. Dannhauser CS. 1991. Die bestuur van aangeplante weiding in die somerreënvaldele, vol. 1. Warmbad
6. SANSOR - <http://sansor.org/sub-tropical-grasses/>
7. Truter, WF. Dannhauser, CS, Smith, H. and Trytsman, G. 2014. *Anthephora pubescens* (Wool grass). Integrated Crop and Pasture-based livestock production systems. Conservation Agriculture – Part 7. SA Grain. ISSN 1814-1676. Page 107-109.

