

DOMESTICATION OF CURLY MITCHELL GRASS

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A domesticated pasture grass must meet two basic requirements:

1. Seed can be mechanically harvested,
2. Seed can be reliably established using commercial agronomic practices.

Poster Series

1. Curly Mitchell grass is:-
 - long lived (30 - 40 years)
 - drought tolerant
 - nutritious
 - has a degree of seed retention
2. Objective comparison with other grasses:-

In terms of establishment ability, persistence, and yield, Curly Mitchell is equal or superior to introduced grasses such as bambatsi panic, and purple pigeon grass.

3. Seed production and harvesting:-

Due to seed retention, seed can be direct headed using conventional wheat headers. Yields of 100 kg/ha of spikelet material are possible.

4. Seed cleaning and germination:-

The spikelet is the natural dispersal unit but clean seed can be obtained by threshing. Spikelets and clean seed differ in their germination and establishment response. Current research is aimed at determining which form of seed gives best field establishment.

5. Seed sowing and establishment:-

Seed can be sown through pasture seed boxes or through buffel seeders or air seeders. Sowing guidelines are available to minimise the risk of failure from dryland sowings.

This will be the first example of an Australian native grass domesticated for commercial agricultural use.