



Herbage Development Fact Sheet 4 • By Eric Hall and Andrea Hurst

Cocksfoot, cv. Megatas^(b)

(*Dactylis glomerata* L.)

Origin

Recurrent phenotypic selection: 4 cycles of recurrent phenotypic selection for seedling vigour, early tillering of seedlings and a more prostrate growth habit from accession K2725, collected as seed by Margot Forde near Silva, La Coruña, Spain (43° 09'N 8° 25'W), 1989. Selection criteria: vigour, seedling vigour, early tillering of seedlings, uniform flowering time and a more prostrate growth habit. Propagation: seed. Breeders: Eric Hall and Andrea Hurst, Tasmanian Institute of Agricultural Research, Mt Pleasant Laboratories, Launceston, Tasmania.

Description

Ploidy: tetraploid. Foliage: fineness broad. Plant type: perennial forage grass, persistence: persistent.

Major attributes

Megatas^(b) was selected for its excellent seedling vigour and increased leafiness and vigour with a low crown (Fig. 1). It is highly summer active producing a large bulk of highly palatable, high protein, high-energy forage all year round with a high level of digestibility and nutritive value. Megatas^(b) has little or no aftermath heading, producing leafy feed throughout summer.

Seasonal production

Megatas^(b) is highly summer active and is an ideal plant for summer dominant rainfall areas, but produces a large bulk of forage all year round.

Drought tolerance

Can tolerate moderate levels of moisture stress.

Cold tolerance

Moderate. Suffers frost damage if frosts greater -3° C.

Waterlogging tolerance

Will tolerate short periods of waterlogging.

Salt tolerance

Low.

Soil and climate requirements

Adapted for sowing into all well drained

soil types of moderate to high fertility, in medium to high rainfall temperate areas receiving 600+mm average annual rainfall.

Maturity

Flowers a few days later than Porto. Seed matures late January/early February.

Seed size

Thousand seed weight 1.02gms (Porto 0.71gms).

Seed treatment

None required.

Sowing methods

Drilled, direct drilled or broadcast.

Sowing depth

No deeper than 10mm.

Sowing rate

2–5kg/ha.

Sowing time

Suitable for sowing in autumn or spring with other forage grasses and legumes.

Land preparation

Well-cultivated firm seedbed required for best results. For direct drilling or broadcasting there should be as little vegetation as possible and adequate soil moisture prior to sowing.

Compatibility with other species

Suitable for sowing with other forage grasses and legumes with high seedling vigour. May out compete some slower establishing legume species.

Suggested mix

Megatas^(b) and Rubitas^(b) or Astred^(b) stoloniferous red clover.

Seedling vigour

Excellent seedling vigour when compared to other cocksfoot varieties.

Grazing management

To maintain the high feed quality of this cultivar grazing should take place prior to the plants reaching 5-leaf stage. Best suited to a high input rotational cattle grazing system, although will persist if closely grazed by sheep.

Dry matter yield

Up to 16 t/ha DM achieved under irrigation.

Feed value

High, declining slowly with maturity.

Typical feed test figures

Crude protein (%DM)	17.1
Digestibility (%digestible DM)	78.9
Metabolizable energy (MJ/kg DM)	11.6

Anti-quality factors

None known.

Seed harvest methods

Direct heading. Seed sheds when mature.

Seed yields

Yields around 600 kg/ha are achievable. (Fig. 1)

Diseases

Minor cases of rust have been observed on some plants in wet summers.

Pests: none known

Animal performance

Comparable lamb liveweight gains for lambs grazing Megatas^(b) vs lambs grazing perennial ryegrass. (Table 1)

Table 1. Average lamb live weight gains (kg) (28 day grazing cycles) grazing pure swards of a range of grass species

Treatment	October	December
Banquet (perennial ryegrass)	10.75	3.29
Exceltas (coloured brome)	10.68	3.10
Flecha (winter active fescue)	8.99	0.73
Megatas (cocksfoot)	10.16	3.44
Porto (cocksfoot)	10.44	1.92
Uplands (hispanic cocksfoot)	10.80	2.40
Victoca (perennial ryegrass)	10.57	1.26

Data extracted from the TIA Burlington Road Annual Report May 2011



Figure 1. Megatas plant - highlighting the low densely tillered crown.

Figure 2. Megatas seed crop

(l) Variety is protected by Plant Breeders Rights



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