

SPANISH COCKSFOOT, CV. UPLANDS [Ⓛ]

(Dactylis glomerata ssp. hispanica L.)

Eric Hall and Andrea Hurst
Tasmanian Institute of Agricultural Research, Mt Pleasant Laboratories, Launceston, Tasmania.

ORIGIN

Recurrent phenotypic selection: 4 cycles of recurrent phenotypic selection for seedling vigour, summer activity and upright growth habit within CPI 134670, collected by Bob Reid (ex TIAR) as seed near Zamora, Zamora province, Spain (41° 32'N 05°47'W), 3 Jul 1993.

Propagation: seed.

Breeders: Eric Hall and Andrea Hurst, Tasmanian Institute of Agricultural Research, Mt Pleasant Laboratories, Launceston, Tasmania.

DESCRIPTION

Ploidy: tetraploid.

Foliage: fineness fine.

Plant: type Mediterranean or hispanica perennial forage grass, persistence persistent, growth habit upright to semi-upright, tillering density high, maturity medium, colour medium to dark green with greyish hue (RHS 133A).

Stem: width narrow mean 1.01mm, number per plant mean 57, length (inc. inflorescence) mean 1058.3mm, length of upper internode mean 354.1mm.

Flag leaf: length, mean 125.8mm, width mean 5.0mm.

Inflorescence: length mean 123.0mm, emergence date mean 19 Oct, (109.75 days from day 0 = 1 July) flowering date mean 27 November (91.64 days from day 0 = 27 August), colour of anthers mostly pale yellow.

MAJOR ATTRIBUTES

Uplands [Ⓛ] is a fine leafed Mediterranean or hispanica cocksfoot with a very high level of drought and cold tolerance. It is highly autumn/winter active producing up to 30% more herbage dry matter than Porto cocksfoot over the autumn/winter period.

SEASONAL PRODUCTION

Uplands [Ⓛ] has some summer activity but will become dormant during dry periods. It grows rapidly in autumn to late spring producing a large bulk of high protein, high-energy forage with a high level of digestibility and nutritive value.

DROUGHT TOLERANCE

Its ability to become dormant through extended dry periods gives Uplands [Ⓛ] a very high level of drought tolerance.

COLD TOLERANCE

Very high. Tolerates frosts to -9° C with little or no frost damage.

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. It is best adapted to low rainfall temperate areas receiving between 300mm and 750mm average annual rainfall.

MATURITY

Flowers late November. Seed matures mid January.

SEED SIZE

Thousand seed weight 0.55gms (Porto 0.71gms).

SEED TREATMENT

None required.

SOWING METHODS

Drilled, direct drilled or broadcast.

SOWING DEPTH

Best sown at a depth of about 5mm. Seed which is sown deeper than 10mm is unlikely to emerge.

SOWING RATE

2 – 5kg/ha.

SOWING TIME

Preferably late summer to autumn for sufficient seedling development coming into winter but can be sown in early spring.

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 low to moderate seedling vigour. May be out competed by more vigorous species.

SUGGESTED MIX

Spanish cocksfoot, winter active tall fescue, phalaris, Talish clover (when available) and Caucasian clover.

SEEDLING VIGOUR

Uplands[®] can be slow to establish if sown in the cooler months and should not be sown with more vigorous plants eg. perennial ryegrass or bromes.

GRAZING MANAGEMENT

Once established can tolerate persistent close grazing by sheep. It is less likely to become clumpy than Porto type cocksfoots.

DRY MATTER YIELD

Up to 8 t DM/ha/year achieved under dryland conditions at Mt Pleasant, Launceston. This is 13% higher than Porto in the same trial.

FEED VALUE

Uplands[®] has excellent nutritive value with protein levels in excess of 20% and high levels of digestibility.

TYPICAL FEED TEST FIGURES

Crude protein (%DM)	21.6
Digestibility (%digestible DM)	76.8
Metabolizable energy (MJ/kg DM)	11.3

ANTI QUALITY FACTORS

None known.

SEED HARVEST METHODS

Direct heading, cutter rowing. Holds seed very well, can be difficult to thresh from heads.

SEED YIELDS

Yields around 500 kg/ha are achievable.

DISEASES

May suffer from rust and ergot in seed in years or areas where summers are wet.

PESTS

Resistant to pasture grub attack, susceptible to heavy corbie infestations.

PRODUCTION DATA

SEASONAL HERBAGE PRODUCTION OF SPANISH COCKSFOOTS, SENDACE, UPLANDS AND KASBAH RELATIVE TO PORTO

(Mean of 3 years data, Launceston, Tas).

