



A collaboration between AWI, GRDC, MLA, RIRDC and Dairy Australia

Tall wheat grass

Scientific name(s)

Thinopyrum ponticum

Strengths

- Well adapted to poorly drained, saline and alkaline soils.
- Provides high quality grass late in the season on moist/flats, late finishing land.
- Drought tolerant

Limitations

- Modest seedling vigour and winter growth

Plant description

Plant: a densely tufted, late maturing perennial tussock grass with a deep fibrous root system

Stems: Up to 2 m high

Leaves: short ligule; pronounced auricle; young leaves rolled in the bud; greyish green, glaucous and stiff; thick veined; glabrous on upper side (much softer if kept closely grazed)

Seedhead: an erect spike 1-30 cm; lower internodes of rachis 1.5-3 cm, upper ones shorter, all flat on side facing the spikelet.

Seeds: Large, long and narrow. ~140,000/kg

Pasture type and use

Used in reclamation of saline soils and for soil conservation; also for pasture in low rainfall, non saline soils.

Where it grows

Rainfall

400-1000 mm/yr in southern Australia. At least 500 mm/yr in northern NSW

Soils

Acid or alkaline soil. Most suited to hard pan soils that alternate winter water logging and summer dry crust. Tolerates salinity up to 40 dS/m; 50% yield loss at 19.4 dS/m. Puccinellia is more suited to highly saline land <http://theses.library.uwa.edu.au/adt-WU2007.0133/public/01front.pdf>

Temperature

Suited to Mediterranean/similar climate. Only fair tolerance to frost.

Establishment

Companion species

Grasses: Puccinellia, tall fescue

Legumes: strawberry clover, Persian clover (ssp resupinatum), balansa clover

Sowing/planting rates as single species

10-12 kg/ha. Use seed <2 years old; seed viability usually declines steeply after 2 years

Spray weeds in spring in the year before sowing. Fence off saline areas and scarify soil (but not along seasonally flowing drainage lines) prior to drilling seed.

Sowing/planting rates in mixtures

6 kg/ha

Sowing time

Early autumn. Sow in spring - early or on a winter fallow - in high rainfall areas

Inoculation

Not applicable

Fertiliser

MAP

Management

Maintenance fertiliser

10 kg P/ha. N, K as per common pasture.

Grazing/cutting

Defer grazing until crown is well developed. Very tolerant of grazing once established. Yield and quality relatively good if kept short. Good late growth makes companion legume quite vulnerable to lax grazing. Excellent silage/hay if mown before heading.

Low value old stands of rank growth can be reclaimed by mulching (cut at 10 cm) in early summer, or by burning when fire restrictions permit

Seed production

Flowers in January in southern Victoria; harvested March-April. 250-300 kg/ha
http://www.agric.wa.gov.au/content/PAST/GRASS/FN1996_075.HTM

Ability to spread

Poor recruitment of seedlings due to low seedling vigour

Weed potential

Used in Australia for >40 years without on-farm problems. If ungrazed and allowed to grow rank, seed can move with water flow and germinate in bare areas e.g. coastal saltmarsh so avoid use adjacent to sensitive conservation areas.

Major pests

Slugs and crickets may kill seedlings

Major diseases

No information

Herbicide susceptibility

glyphosate

Animal production

Feeding value

High. Late green growth has given animal production returns on reclaimed land that often exceed those on non-saline higher ground

Palatability

High if kept grazed. Low where allowed to grow rank. Varies with cultivar.


Production potential

Relatively good in autumn, spring and summer

Livestock disorders/toxicity

No problems recorded

Cultivars

Group	Cultivar	Seed source/Information
Old	Tyrell	Australian Herbage Plant Cultivars Stephen Pasture Seeds
New	Dundas 	Australian Herbage Plant Cultivars Wrightson Seeds

Tyrell derives from a 1930's Turkish accession into USA which was imported into Australia as cv Largo in the 1950s. Dundas was bred in Australia for improved quality and production in the 1990s

 Denotes that this variety is protected by Plant Breeder's Rights Australia

Further information

Establishing and managing tall wheat grass in saline soils for productivity - Victoria DPI

Acknowledgements

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Author and date

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