

Veldt Grass Establishment

Landholder Survey

A survey was conducted in 2023 in the Coorong & Tatiara regions on the establishment and maintenance of Veldt Grass and the harvesting of seed.

All of the survey respondents reported success in Veldt Grass establishment using a variety of seeding methods & machinery. Most used machinery they had on hand.

Landholders reported seeding rates from 0.5 kgs/ha to 10kgs /ha, depending on germination test and companion species. Veldt Grass seed can have a very poor germination rate and it pays to get a germination test, particularly if you harvest the seed yourself.

[Annual maintenance and grazing are covered in other fact sheets in this series](#)

Age of Veldt grass stands

Many landholders have reported that their Veldt Grass pastures are over 50 years old.

Landholder comment on areas to be planted

In general, we have planted veldt where there is non-wetting sand, which is not just the obvious hills, but in paddocks which are designated flats, but which have areas of low-lying sandy rises.

If Veldt is not included in the flat mix of seed, those low rises can be almost bare and become a problem for paddock management.

Possible Invasive Weed

Perennial Veldt Grass (*Ehrharta Calycina*), native to southern Africa and regarded as an environmental weed in Western Australia, South Australia and Victoria. Perennial Veldt Grass is a major problem because it replaces native plants and in its dry dormant state it creates a fire hazard and increases fire frequency.

It readily establishes on disturbed acidic sandy soil. If there is no Veldt Grass present, it may be worth considering planting a less invasive pasture species.



Perennial Veldt Grass Description

Scientific name

Ehrharta calycina

Strengths

Drought tolerant. Tolerant of low temperatures, strongly acid soil and low soil fertility.

Limitations

Poor winter growth; highly sensitive to waterlogging.

Plant description

Plant: Quite variable, perennial tussock grass; grows in clumps to 1.8 m tall. Its 2-phase fibrous root system facilitates perenniality in "annual" environment.

Leaves: Hairless, filiform, to 7 mm wide, flat/rolled. Has white transparent ligule. Auricle is purple at maturity.

Seedhead: Drooping open panicle; hairy spikelets, 4-8mm long. Reddish-purple flowers, 7-22cm long.

Seeds: Variable, ~220,000/kg, often considerable inert matter and low germination.

Pasture type and use

A hardy pasture plant for light soil/low rainfall. Moderately resistant to fire. Also used to prevent soil erosion.



Where it grows

Rainfall

> 300 mm

Soils

Light textured; very suited to sandy soil. Tolerant of strong acid, high exchangeable aluminium & alkalinity.

Temperature

Tolerant of a wide temperature range, including extreme cold. Seed germinates at 13-28°C.



Veldt Grass Seed

PERENNIAL VELDT GRASS ESTABLISHMENT - *Ehrharta calycina*

Establishment – notes from Veldt Grass survey

Sowing/planting rates as single species

1-2 kg/ha; will recruit seedlings and thicken up on sandy soil. Sow 3 kg in higher rainfall. Purchase certified seed. Request recent germination test on seed as the quality of stored seed falls rapidly and seed is usually uneven re maturity.

Sowing with companion species

Grasses: cocksfoot – if sown at < 1kg/ha.

Legumes: serradella, sub clover, annual medics and lucerne.

Evening Primrose.

Sowing/planting rates in mixtures

0.5 to 10 kg/ha depending on germination test and companion species.

Sowing time

Autumn. Late winter/spring OK in summer rainfall areas.

Inoculation

Not applicable.

Fertiliser

Superphosphate or MNP; correct nutrient deficiencies; sensitive to low N which can be common on deep acid sands. Nitrogen build-up with serradella or lupins in the previous year(s) greatly improves establishment on such soil.

Establishment & Seeding Methods & Machinery

A wide range of methods used

Many spray topping the year before sowing.

Direct drilling with a disc seeder with press wheels.

Air-seeder followed by prickle chaining.

Trash Disc with small seeds box.

Direct drill, press wheels, soil wetter.

Spread using super spreader & harrowed.

Drop on top, then harrow.

Combine 753 Chamberlain.

Combine with small seed box.

Super spreader and harrows.

Trash drill.



From: Pasture Options for Eyre Peninsula *Eyre Peninsula NRM Board and Grain & Graze*

Use

Perennial Veldt Grass is well adapted to low fertility deep sands and can be used to provide surface cover on areas prone to wind erosion. With good management veldt grass stands can provide high quality feed.

Pre-sowing

Ensure good control of grass and broadleaf weeds with a knockdown prior to sowing.

Sowing

Sow seed 1 cm deep into moist seedbed at a sowing rate of 1 to 2 kg/ha ensuring good soil to seed contact.

Direct drill into standing stubble or sow with a cover crop (cereal at 20 kg/ha).

Trace element deficiencies are common on the deep sandy soils where Perennial Veldt Grass is sown. Use soil test results to determine fertiliser application at seeding.

Press wheels are of particular benefit in helping to achieve good seed to soil contact and creating a water harvesting furrow when sowing on non-wetting sand.

Can be sown with an annual legume companion species. Regular fertiliser application will encourage legume component to persist (Freebairn 1989).

Establishment Management

Allow stand to set seed in the first year (and every few years after establishment). This will help increase stand density and persistence.

Will respond to annual top dress with super phosphate.

Monitor trace element levels using soil testing on highly leaching soils.

Broadleaf weeds can be controlled in Perennial Veldt Grass stands. Seek advice on chemical products that can be used in your specific situation.

Perennial Veldt Grass once established is tolerant of pests and diseases (Freebairn 1989). Seed head can be infected by smut, however this does not seem to affect animal health and can be managed by mowing stands

Grazing Management

Veldt Grass when fresh is highly palatable and roots are very shallow. Care needs to be taken not to damage tillers or uproot plants by overgrazing.

Rotational grazing will improve the productivity and persistence of the stand. Perennial Veldt Grass is highly susceptible to overgrazing by set-stocking.

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