

# DYNAGRO SEED

## Lanza® tедера

A herbaceous perennial pasture legume for drier Mediterranean environments.



### KEY FEATURES

- Recommended for grazing to fill the summer-autumn feed-gap.
- Minimal leaf shedding during summer and autumn.
- Drought and heat tolerant.
- High nutritional value (typical figures: 73% digestible dry matter; 17% crude protein and 11.8 metabolisable energy (MJ/Kg DM)).
- Has the ability to recruit seedlings in autumn within established stands, contributing to the perenniality of the sward.

### BREEDING

- T15-1218 is a new tедера variety protected under the Plant Breeder's Rights Act 1994, and is intended to be commercialised under the trade mark Lanza®.
- Lanza® tедера was bred by the Department of Primary Industries and Regional Development (DPIRD) as part of the Future Farm Industries Cooperative Research Centre.

The information in this document is current as at July 2020.

Lanza® is a registered trade mark of Western Australian Agriculture Authority and Meat & Livestock Australia Limited and is marketed under the Dyna Gro® seed brand. Dyna-Gro® is a registered trade mark of Nutrien Ag Solutions Limited. All information contained in this document has been provided by DPIRD WA.

### PLANT DESCRIPTION, SOIL AND CLIMATIC REQUIREMENTS

- Tедера (*Bituminaria bituminosa* var. *albomarginata* and var. *crassiuscula* C.H. Stirton) is a traditional forage native to the Canary Islands, Spain.
- Self-pollinated diploid ( $2n = 20$ ) species with low levels of outcrossing.
- Well adapted to Mediterranean-like climates with a dry summer and autumn.
- Suitable for rainfall environments of more than 300mm of annual rainfall.
- Best suited to well drained soils, but tolerates short periods of transient waterlogging.
- Performs best with soil pH(CaCl<sub>2</sub>)  $\geq 4.8$ .
- Suited to a range of soil textures from sands to clays.
- Better suited to landscapes/regions with low frost risks.
- Frosts will yellow/burn foliage, but plants will re-grow.
- Regions with multiple severe frosts can kill seedlings and have significantly reduced plant populations.
- Regions with continuous cold temperatures during winter will reduce growth rates.
- Can be used in continuous pasture or in phase pastures of 3-5 years as part of a cropping rotation.



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### PADDOCK SELECTION AND PREPARATION

- Reduction of the weed seed bank is a priority before sowing.
- The paddock should be weed free prior to sowing.
- High weed burdens after sowing can significantly reduce plant populations.

### SOWING RECOMMENDATIONS

Seed inoculation and dressing

- Lanza™ will be grown on soils unlikely to contain any suitable rhizobia and must be inoculated with the special strain of teder Rhizobium (WSM 4083).
- Seed should be inoculated with a peat slurry, lime pelleted and sown promptly (ideally within 24 hrs) after inoculation.
- Fungicide and insecticide have been used successfully to establish seed crops and research experiments.

### SOWING

- Establish with conventional seeding equipment.
- Sow into moist soil in autumn, early winter or spring. In regions with severe cold winters, spring sowing is recommended.
- Recommended sowing rate is 10 kg/Ha at a depth of 2 cm.
- Sow into a well prepared seed bed following good weed control.
- Similar phosphorous requirements to subclover and more efficient in the use of potassium and sulphur than subclover.



Vegetative stand at Dandaragan (Dec 2016) during winter, trifoliate leaf, inflorescence, and processed seeds ready for sowing.

### WEED CONTROL

- Experimental crop safety data suggests that the following herbicides (registered for clover based pastures), appear to be safe and can be used in Lanza™ teder (also known as Bituminous clover) pastures:
  - Pre-emergent – Trifluralin, Propyzamide
  - Grass Selective – Propyzamide, Verdict™
  - Broad leaf selective – Broadstrike™, Broadstrike™ + Diuron, Raptor®



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### PESTS AND DISEASES

- Lanza<sup>™</sup> should be monitored for redlegged earth mites and aphids during emergence and later in the season and controlled as required.
- Budworm can damage flowers and should be controlled to maximise seed production.
- Lanza<sup>™</sup> has some susceptibility to Phoma herbarum (leaf spots) and Phytoplasma (multiple miniature leaves).
- Susceptible to root knot nematodes (*Meloidogyne* sp.).

### KEY MESSAGES FROM GRAZING EXPERIMENTS SINCE 2010

- No animal health issues have been observed in any of the grazing experiments.
- Grazing of Lanza<sup>™</sup> can commence in summer/early autumn of the year after establishment.
- Animals normally take a few days to start grazing Lanza<sup>™</sup> when introduced for the first time but then it is completely grazed and no palatability/acceptability issues have been observed.
- Lanza<sup>™</sup> can be reliably grown as a monoculture and preserved as green pasture to be grazed to reduce or eliminate expensive hand-feeding in summer-autumn using simple grazing management.



Above and below left:  
Grazing experiment at Dandaragan during winter, July 2013.

### SUMMER AND AUTUMN GRAZING

- During summer and autumn continuous grazing can be applied over periods of three to four months with good liveweight gains. Plants should be grazed to maintain green leaves on them.
- Alternatively, during summer and autumn rotational grazing at higher stocking rates can provide two grazing periods for each paddock. For example, if a paddock is grazed in December for 15 days, it can be grazed again in March.

### WINTER AND SPRING GRAZING

- If Lanza<sup>™</sup> is a pure stand with no weeds or companion forage species, rotational grazing is recommended.
- If Lanza<sup>™</sup> is within a mixture of annual winter species (sown or volunteer) that are well adapted to grow quickly during winter, continuous grazing is recommended so Lanza<sup>™</sup> and companion species are all equally heavily grazed.





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### BIO-ECONOMIC MODELLING

- Whole farm economic model analyses have shown that high quality out of season green feed is most valuable if used to increase meat production and this is likely the case with Lanza<sup>™</sup>. Possible strategies for utilising Lanza<sup>™</sup> include:
  - A substitute for grain as a maintenance feed for stock from early-summer to late-autumn.
  - A production feed during early-summer to either finish prime lambs, flush ewes in the lead up to joining or achieve weight gain for twin bearing ewes in late pregnancy to increase twin lamb survival.
  - A combination of production feeding of lambs and maintenance feeding of older animals. The selective grazing of Lanza<sup>™</sup> from leaf to stem provides an opportunity to utilise the feed as both a feed to gain weight and a feed to maintain weight if a follower flock is used in a rotation grazing system.

### SEED ENQUIRIES

Lanza<sup>™</sup> teder is marketed under the Dyna-Gro<sup>®</sup> Seed brand.

For seed enquiries contact your local Dyna-Gro or Seednet representative.

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### Major funders of teder research

Meat and Livestock Australia



Future Farm Industries CRC  
Department of Primary Industries and Regional  
Development  
Seednet – Nutrien Ag Solutions  
AgriFutures Australia (RIRDC)

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