

INDEPENDENT FIELD RESEARCH DATA **LUCERNE POT TRIAL**

SEEDLING VIGOUR / ESTABLISHMENT: REPLICATED TRIAL

Independently Conducted by Ag Logic# (July 2016)

Aim: Determine the effect of Great Land on lucerne seedling growth and vigour.

Design: Randomised pot trial, 10 replicate (pots) for each treatment. Each pot contained 4 lucerne plants. Same potting mix and fertiliser regimes across treatments.

Treatments:

- **Control:** No Great Land® applied
- **Treatment:** Great Land® applied at 4 leaf stage (during establishment), 20 L/ha* diluted 1 in 10.

Assessments: Harvested plants at 50 days after sowing. Measurement of root weights and plant weights. Assessment and analysis conducted on 10 plants for each replicate, after thinning to achieve uniformity between treatments.

Results: Statistically significant results were reported for Great Land® treated lucerne. Above ground portions weighed on average 1.47 g, 27% more than the control at 1.16 g/plant. Root weights averaged 0.75 g/plant, 44% better than control plant at 0.52 g/plant. Total plant weight (above ground and roots) were 32% higher for treated than control plants.

Conclusions: There are clear benefits to lucerne plant establishment when Great Land® @ 20 L/ha* is applied as a spray after seedling emergence and this is expected to translate into stronger earlier stage growth and resilience to stress.

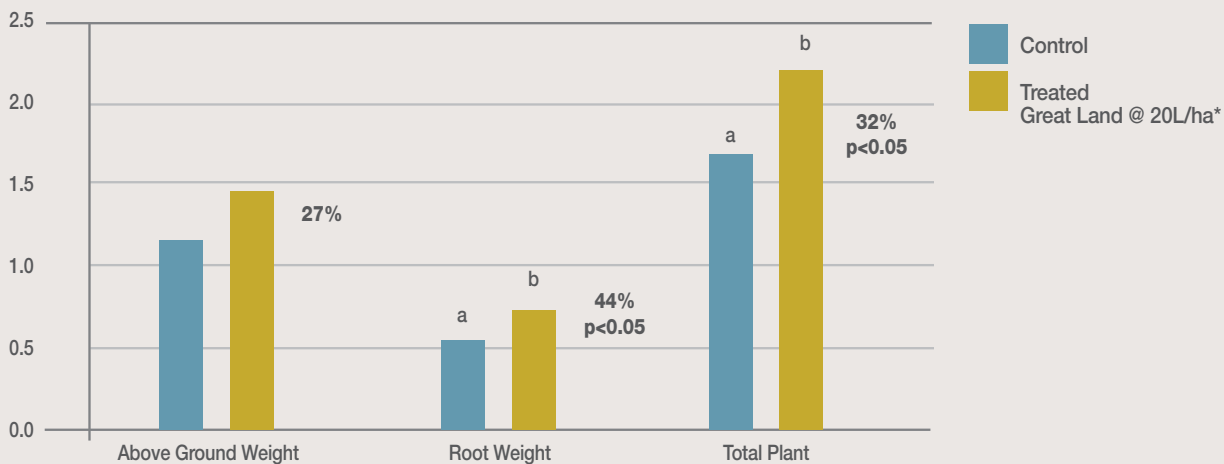
Observation: Commercial trials measuring harvest yields, reported separately, provide further evidence to support these results.

Ag Logic Agricultural Intelligence. Newstead, TAS. www.aglogic.com.au.

Full report available on request.

* Trial application rate equivalent to new Great Land formulation, released December 2018

Great Land® - Lucerne Pot Trial
Plant tissue weights (grams) after 50 days



COMMERCIAL FIELD TRIALS LUCERNE

Commercial Trials – Paired or Split Paddock

Commercial trials were conducted over the 2015 season to compare the effect of Great Land applied to half of a paddock, or on adjacent paddocks, against untreated areas with the same soil type and topography. Trials were conducted by the farmer and overseen by the Terragen Biotech representative. Three separate trials are presented below.

LUCERNE SEED

Forbes, NSW - Variety Aurora, established 2009. Flood Irrigation, 50m bays

Split Paddock Trial

- Treatment Area: 6.5 ha
- Control Area: 7.0 ha

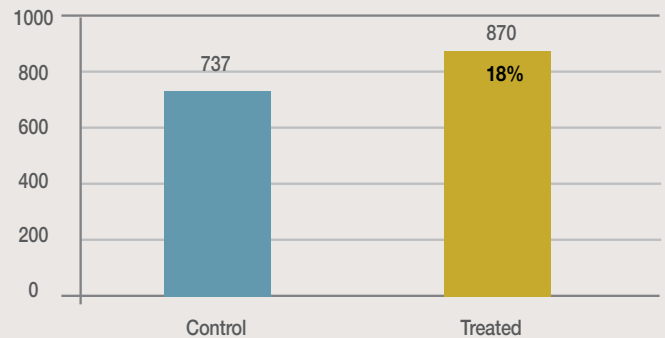
Great Land @ 10 L/ha*, applied once by boom spray.

- One month after cutting for hay
- Areas measured by spray rig.

Gains on Great Land treated block

- Yield Gain 133 kg/ha
- Seed value \$5/kg, profit after product cost: \$623/ha

Lucerne Seed, Forbes, NSW
(kg/ha)



LUCERNE HAY, ORGANIC

Shepparton, Victoria - Flood Irrigation

Two trials, paired paddocks

- Treatment and control areas: 3 ha each

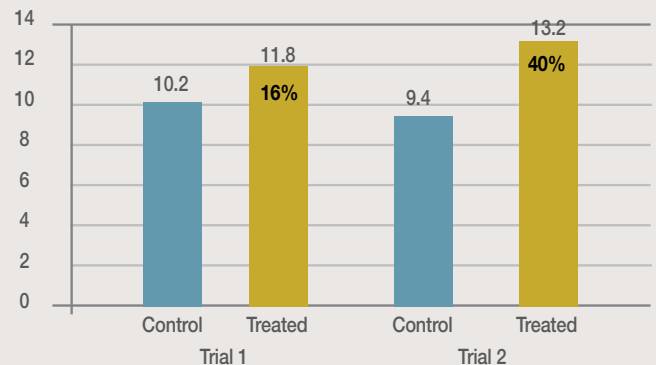
Great Land @ 10 L/ha* by boom spray at start of growing period for each of three cuts

Gains on Great Land treated blocks:

- Trial 1: 8 bales, 600kg/bale = 1.6 t/ha, 16%
- Trial 2: 19 bales, 600kg/bale = 3.8 t/ha, 40%

Based on \$250/tonne for hay, net returns after product cost are: \$358/ha and \$908/ha on trial 1 and 2, respectively.

Lucerne Organic Hay, Shepparton, Victoria
Three Cuts (t/ha)



LUCERNE HAY

Mt Gambier, SA - Centre Pivot Irrigation

Split Paddock Trial, total paddock area 48 ha

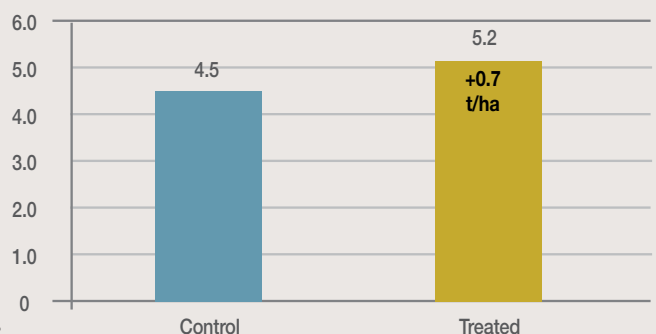
- Treatment Area: 24 ha
- Control Area: 24 ha

Great Land @ 10 L/ha* by boom spray at start of growing period for each of two cuts

Gains on Great Land treated area:

- Total 24 bales, 700kg/bale, over 24ha = 0.7 t/ha, 16%
- Hay @ \$250/tonne, net gain after product cost is \$133/ha

Lucerne Hay, Mt Gambier, SA
Two Cuts (t/ha)



* Trial application rates equivalent to new Great Land formulation, released December 2018.