

# Producer Update

## Tamar Pasture Improvement Demonstration Project

### *Supporting Tamar Valley Producers*

A three year producer demonstration site (PDS) project funded by MLA with in-kind support by Landcare and farmer groups.

Aimed at increased profitability to the red meat supply chain by adopting improved pasture varieties and management practices as demonstrated at 3 farm pasture trial plots in the Tamar Valley.

### Project objectives

- To present regionally relevant information on sustainable pasture management and animal nutrition/production to encourage farm practice change.
- To present via demonstration, that new pasture species/cultivars and associated grazing management practices will increase the profitability of the red meat supply chain by at least 10%.
- To present options of better adapted, persistent and productive pastures able to better cope with changing environmental conditions.

### Project Design

The project takes into account the different demonstration site characteristics of soil, aspect, rainfall, pasture species used, prevailing environmental conditions and animal variables.

Pasture composition, pasture production, stocking rates, animal live weight gain, rainfall, irrigation inputs, pasture feed values, silage/hay feed values, faecal egg counts, soil fertility and fertiliser inputs will all be documented over the life of the project.

## "Elverton" Blessington

### Update 20<sup>th</sup> March 2018

A field day was held on Tuesday 20<sup>th</sup> March, 2018 to present to local producers early results on one of the three PDS sites.

## Demonstration Sites

Enterprise	Area	Co operator	Demonstrating
Elverton 2,700 ha (1200ha grazing) 860 cows and calves 310 heifers 25 yearlings 20 bulls 3000 prime lamb ewes 4800 lambs	Blessington	Ian Dickenson	Comparing the animal and pasture production from 4 rotationally grazed paddocks sown with improve pasture cultivars and 1 run down control paddock.
Greenhythe Part of the Landfall Angus cattle enterprise of 400 ha carrying 1,200 cattle	Hilwood	Ed Archers	1.35 ha of an existing Tamar NRM/TIA pasture trial to be monitored for persistence.
Springmere 460 ha 70 cattle 2500 ewes	Beaconsfield	Ben Hooper	Following the performance of 3 paddocks to be sown in 2018 with improved perennial cultivars.

## Project Design

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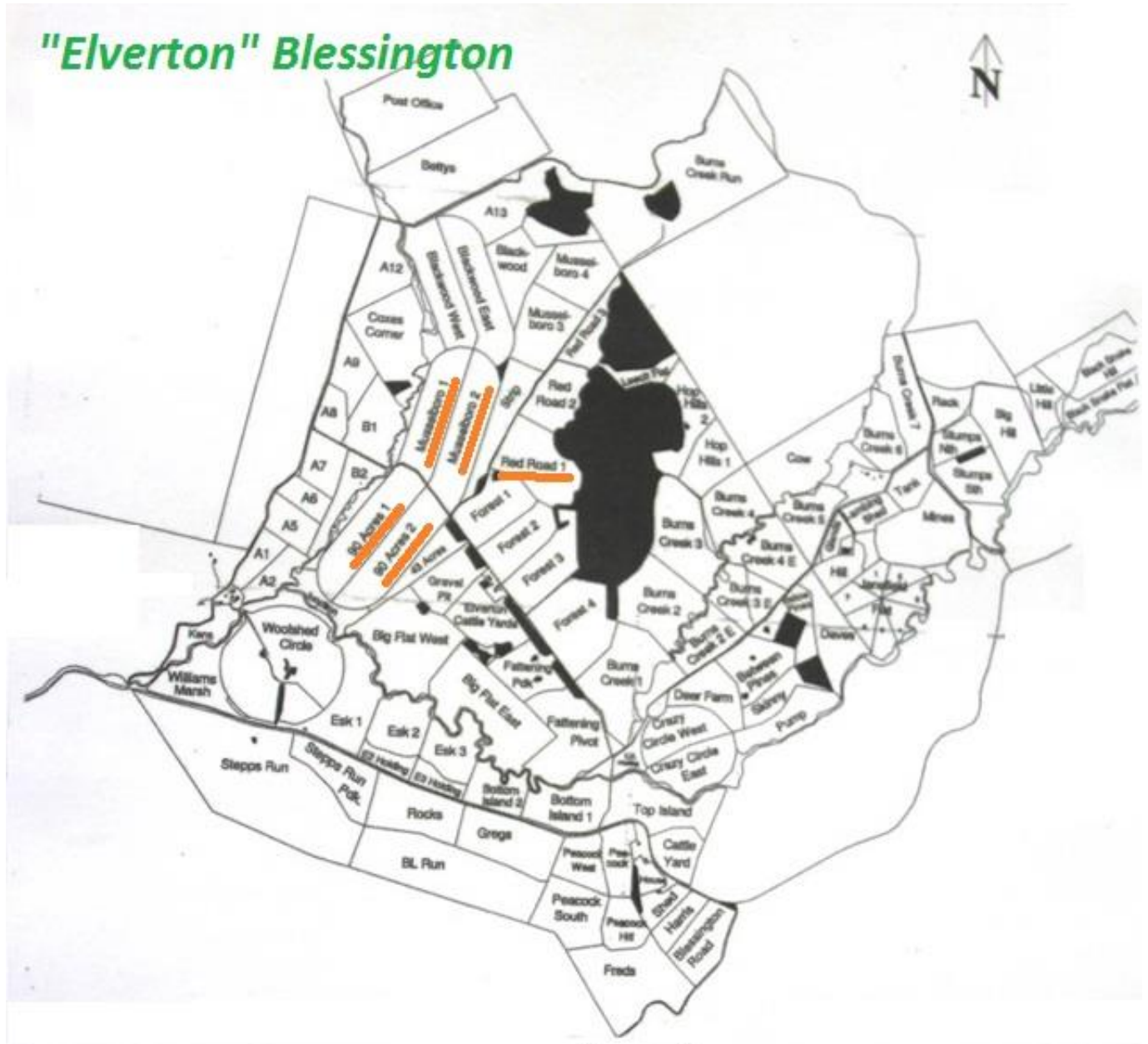
Pasture composition, pasture production, stocking rates, animal live weight gain, rainfall, irrigation inputs, pasture feed values, silage/hay feed values, faecal egg counts, soil fertility and fertiliser inputs will all be documented over the life of the project.

## Elverton Rainfall (long term average 850 mm)

2018	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall	39.0	50.0										

## "Elverton" Results at March 2018

Site Red Road 1 is the control paddock.



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## "Elverton" Demonstration paddock descriptions

### **Paddock: 90 acre\_1**

**Area:** 23ha

**Soil type:** sandy clay loam

**Pasture year of establishment:** 2011

**Latest Soil test results:** 26<sup>th</sup> February 2018

Phosphorous (Olsen P)                      22.2 ppm (moderate)

Potassium (Colwell K)                      183.4 ppm moderate)

pH    5.78 (low)

**Latest fertilizer application:** March 2017, 16-8-13-7 @ 190 kg/ha

**Sown species:** PGG Wrightsons Power Pak Endurance blend @ 22 kg/ha

- Banquet II tetraploid perennial ryegrass?
- Extreme diploid perennial ryegrass
- Leura sub clover
- Bounty white clover

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#### Pasture composition (species % ground cover), October: 2017:

- Perennial ryegrass 50%
- White clover 44%
- Sub clover 0%
- Chicory 4%
- Plantain 1%
- Grass weeds 1% (Yorkshire fog)

#### Pasture and grazing activity

Date in	Date out	Pasture eaten kgDM/ha	Stock numbers used	Liveweight gain kg/head	Total live weight gain Kg/ha	Conversion kgDM to kg liveweight	\$ Value \$/ha*+
14/10	30/10	4345	Lambs 1049 Ewes 650	Lambs 7.09 Ewes 7.97	549	7.91 to 1	1647
16/10	13/12	Cut for silage - approx. 83 Tonnes cut					505
31/1	28/2	2509	Cattle 76 Lambs 273	Cattle 42.8 Lambs 4.17	191	13.1 to 1	573

1. \*Live weight valued at \$3.00/kg
2. + Silage valued at \$140/tonne
- 3.

#### Irrigation inputs (mm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	60	20									

#### Silage feed test

Dry matter %	Moisture %	Crude protein	AD Fibre	ND Fibre	Digestibility	ME MJ/kg DM
40.3	59.7	12.5	28.9	54.4	67.3	10.5

#### Paddock: 90 acre\_2

**Area:** 24.6 ha

**Soil type:** sandy clay loam



**Pasture year of establishment:** 2017

**Latest Soil test results:** 26<sup>th</sup> February 2018

Phosphorous (Olsen P)                      27.8 ppm (high)  
Potassium (Colwell K)                      175.0 (moderate)  
pH (1:5 water)                                  5.66 (low)

**Latest fertilizer application:** March 2017, single super @ 203 kg/ha

**Sown species:**

- Impact II diploid perennial ryegrass @ 10 kg/ha
- Munch diploid perennial ryegrass
- Rubitas stoloniferous red clover @3 kg/ha
- Sustain white clover @2 kg/ha
- Antas sub clover @ 3 kg/ha
- Puna chicory @ 1 kg/ha

**Pasture composition (species % ground cover), October: 2017:**

- Perennial ryegrass                      37%
- White clover                              20%
- Red clover                                5%
- Sub clover                                2%
- Balansa clover                          1%
- Chicory                                    2%
- Plantain                                   0%
- Grass weeds                              22% (winter grass, meadow foxtail)
- Other weeds                              10% (toadrush, montia)

**Pasture and grazing activity**

Date in	Date out	Pasture eaten kgDM/ha	Stock numbers used	Liveweight gain kg/head	Total live weight produced kg/ha	Conversion kgDM to kg liveweight	\$ Value \$/ha*+
31/10	8/11	5240	Lambs 1049 Ewes 650 Yearling cattle 280 Bulls 7	Lambs 4.5 Ewes 4.5 Yearling cattle 14 Bulls -23	464	11.29 to 1	1,392
24/11	4/12	2617	Yearling	Yearling	148	17.7 to 1	444

			heifers 280 Bulls 7	cattle 13 Bulls -1			
24/1	12/2	2657	Cows and calves 412	Cows and calves 412	461	5.8 to 1	1383

#### Irrigation inputs (mm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	80	20									

### Paddock: Musselboro\_1

**Area:** 23 ha

**Soil type:** fine sandy clay loam

**Pasture year of establishment:** 2015

**Latest Soil test results:** 26 February 2018

Phosphorous (Olsen P) 25.9 ppm (high)

Potassium (Colwell K) 152 ppm (low)

pH (1:5 water) 5..27 (very low)

**Latest fertilizer application:** March 2017, 16-8-13-7 @ 250 kg/ha

#### Sown species:

- Impact II diploid perennial ryegrass @10 kg/ha
- Bealey tetraploid perennial ryegrass @ 5 kg/ha
- Astred stoloniferous red clover @ 2 kg/ha
- Quest white clover @ 1 kg/ha
- Puna chicory @ 1 kg/ha
- Palestine strawberry clover @1 kg/ha

#### Pasture composition (species % ground cover), October: 2017:

- Perennial ryegrass 46%
- White clover 33%
- Red clover 9%
- strawberry clover 5%
- naturalized legume 1% (ball clover)
- Chicory 6%
- Grass weeds 1% (Yorkshire fog, meadow foxtail)

### Pasture and grazing activity

Date in	Date out	Pasture eaten kgDM/ha	Stock numbers used	Liveweight gain kg/head	Total live weight produced kg/ha	Conversion kgDM to kg liveweight	\$ Value \$/ha*+
4/10	13/12	Cut for silage –approx 85.2 tonnes cut					519
4/1	7/2	2862	Lambs 1350	Lambs 2.5	147	19.4 to 1	441
28/2							

4. \*Live weight valued at \$3.00/kg

5. + Silage valued at \$140/tonne

### Irrigation inputs (mm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
40	40										

### Silage feed test

Dry matter %	Moisture %	Crude protein	AD Fibre	ND Fibre	Digestibility	ME MJ/kg DM
40.3	59.7	12.5	28.9	54.4	67.3	10.5

### Paddock: Musselboro\_2

**Area:** 24.6 ha

**Soil type:** fine sandy clay loam

**Pasture year of establishment:** 2017

**Latest Soil test results:** 26 February 2018

Phosphorous (Olsen P) 43.3 ppm (very high)

Potassium (Colwell K) 144.9 ppm (low)

pH (1:5 water) 5.16 ppm (very low)

**Latest fertilizer application:** March 2017, single super @ 208 kg/ha



#### Sown species:

- Impact II diploid perennial ryegrass @ 10 kg/ha
- Munch diploid perennial ryegrass @4 kg/ha
- Rubitas stoloniferous red clover @3 kg/ha
- Sustain white clover @2 kg/ha
- Rosabrook sub clover @ 3 kg/ha
- Puna chicory @ 1 kg/ha

#### Pasture composition (species % ground cover), October: 2017:

- Perennial ryegrass 39%
- White clover 13%
- Red clover 3%
- Sub clover 7%
- Chicory 2%
- Grass weeds 36% (winter grass, meadow foxtail)
- Other weeds 1% (toadrush)

#### Pasture and grazing activity

Date in	Date out	Pasture eaten kgDM/ha	Stock numbers used	Liveweight gain kg/head	Total live weight produced Kg/ha	Conversion kgDM to kg liveweight	\$ Value \$/ha
8/11	24/11	4457*	Yearling cattle 280 Bulls 7	Yearling cattle 151.2 Bulls 5.4	307.4	14.5 to 1*	922
18/12	4/1	1557	Lambs 1000	Lambs 1.5	63	24.7 to 1	189
12/2	7/3	3111	Cows and calves 412	Cows and calves 16.3	272.2	11.4 to 1	817
5/3			Lambs 555				

\*calculated using Musselboro 2 pregraze in and residual out kgDM/ha and estimated pasture growth rates for the period 8/11 to 24/11, due to the cages being moved by the cattle during grazing.

#### Irrigation inputs (mm)

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
20	60	20									

## Control paddock description

### Paddock: Red Road\_1

**Area:** 21 ha

**Soil type:** fine sandy clay loam

**Pasture year of establishment:** 1997

**Latest Soil test results:** 26 February 2018

Phosphorous (Olsen P) 13.1 ppm (low)

Potassium (Colwell K) 261.9 ppm (very high)

pH (1:5 water) 5.63 ppm (low)

**Latest fertilizer application:** April 2017, 0-7-13-8 @ 250 kg/ha

**Sown species:** Not available

### Pasture composition (species % ground cover), October: 2017:

- Perennial ryegrass 28%
- Cocksfoot 5%
- Tall fescue 1%
- White clover 11%
- Sub clover 38%
- Naturalized legumes 3%
- Grass weeds 13% (vulpia sp., Yorkshire fog, brown top)
- Other weeds 2% (catsear)

### Pasture and grazing activity

Date in	Date out	Pasture eaten kgDM/ha	Stock numbers used	Liveweight gain kg/head	Total live weight produced kg/ha	Conversion kgDM to kg liveweight	\$ Value \$/ha*+
1/11	30/11	2271	Cows 51 Calves 52 Bull 1	Cows 46.2 Calves 25.7 Bull 10	161	14.1 to 1	483
**Badly affected by corbie grubs over summer							

### Irrigation inputs (mm)

Not irrigated

### Take Home Messages from the Blessington Workshop 20-3-2018

- Based on an estimated 50,000 ha of quality grazing land in the Tamar Valley, an increase of 1 DSE/ha equates to an added return of \$2,000,000 to the region.
- Plants are just one part of the grazing enterprise. To develop an elite grazing enterprise, managers must see soils, plants and animals as equals in the system and maintain them all in peak condition.
- Monitoring pasture growth and animal grazing and condition are essential parts of a successful red meat production operation.
- There are small gains to be made with cultivar choice, but there is a much greater potential for gain from improved pasture utilisation.
- Elverton is currently running 20 DSE over 1200 ha of grazing land, the highest stocking rate of all farmers who attended the field day, with some farmers indicating they were running at between 10 to 15 DSE.
- Elverton can be considered in the top end of pasture managers in the Tamar Valley. Early results have shown a 300% increase in red meat production from the demonstration over the control paddock. This indicates room for improvement even across the better properties.



**Want to know more about the Tamar Valley Pastures Project?**

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Register to attend future Field Day events with Greg Lundstrom on 0438 642 112 at Tamar NRM, or visit the Tamar NRM website at [www.tamarnrm.com.au](http://www.tamarnrm.com.au).

### On-line and by the phone survey

You can participate in an online or by phone questionnaire, where landholders can test their current understanding of pastures. **Jenny Craigen** Survey Project Officer – Tamar NRM will take your survey answers over the phone at a time that suits you. (Contact Jenny, **m: 0432 522 434 e: [jecraigen@gmail.com](mailto:jecraigen@gmail.com)**)

<http://www.tamarnrm.com.au/2017/11/01/participate-in-the-landholder-pastures-survey/>

### Other Resources:

**National Pasture Trial Network (PTN)** - Includes results from the Cressy trials

This tool allows you to assess and compare the performance of more than 100 pasture varieties across the key pasture species for the red meat industry: phalaris, cocksfoot, tall fescue, perennial and annual ryegrass, sub-clover and lucerne.

<https://tools.mla.com.au/ptn/#/home>

### Farm Gross Margin and Enterprise Planning Guide

[https://grdc.com.au/\\_data/assets/pdf\\_file/0028/234964/farm-gross-margin-and-enterprise-planning-guide-2017-online-version.pdf.pdf](https://grdc.com.au/_data/assets/pdf_file/0028/234964/farm-gross-margin-and-enterprise-planning-guide-2017-online-version.pdf.pdf)

