NSW GOVERNMENT Department of Primary Industries

NSW GOVERNMENT Local Land Services

# Pastures field day

## Tamworth Agricultural Institute

## 3 December 2021

GRASSLAND SOCIETY OF NSW INC.

CENTRE FOR INVASIVE SPECIES SOLUTIONS

University of New England

CSIRO

MEAT & LIVESTOCK AUSTRALIA

DONOR COMPANY

# Chilean Needle grass Demonstration site Loomberah, Tamworth NSW

A Chilean Needle grass (CNG) demonstration site was selected at "Glenwood" Loomberah (east of Tamworth NSW) in March 2021 for the CISS invasive grasses project led by Dr Ali Bajwa NSW DPI. The area is approximately 120 metres long by 40 metres wide and was fenced off in the last week of June. The area has an even infestation of CNG across the site and is located to allow good vehicle access as it is within 100m of the sealed Loomberah road.

This site will demonstrate the efficacy of chemical control using pre-emergent and post emergent treatments applied as boom sprays in simulated grazing and non-grazing situations. Pre-emergent treatments were applied mid-winter to give time for some herbicide activation before the growing season starts. Post-emergent herbicide treatments were applied in late September once CNG was in early to mid-vegetative stage. The idea is to improve the efficacy of chemical control by optimising technique and integrating it with strategic grazing. Simulated grazing was applied when plants had achieved significant amount of growth. An untreated control treatment was included in all cases for comparison.

**Methods**

- Soil cores were taken on the 1/07/2021 from a transect line across the site for subsequent soil/seed bank measurements.
- A pre-vegetation assessment was also carried out using quadrats placed along the site transect. These quadrats were 50cm x 50cm in size and divided up into twenty-five 10cm x 10cm squares. Plant species and the number of times they occurred within a square were recorded for each quadrat placement.
- Data from the pre-vegetation assessment has CNG as the dominant species, other species present were native medic, deadnettle, carrot weed, barley grass, annual ryegrass, dock, flatweed, verbena, pimpernel and shepherds' purse.
- Pre-treatment density counts were conducted on 5/08/2021
- Pre-emergent treatments were applied 10/08/2021.
- Post-emergent treatments were applied 28/09/2021.
- Simulated grazing treatment applied 3/11/2021 CNG at early seed head stage
- Biomass cuts and visual scores were conducted on 1/11/2021

**Simulated grazing**

Half of the demonstration strip area will be mown short to simulate grazing and the other half will be the non-grazing area. The same treatments will be applied over both the simulated grazing and non-grazing areas blocks.

**Results so far**

| Trt No. | Herbicides and rates per ha or 100L of water | Pre or Post emergent | Visual rating control % Non-Graze Block | Visual rating control % Graze Block |
|---|---|---|---|---|
| 1 | Untreated | | 0 | 0 |
| 2 | Fluproponate (745 g/L) 3.0 L | Post | 17 | 38 |
| 3 | Fluproponate (745 g/L) 3.0 L | Pre | 73 | 28 |
| 4 | Glyphosate (450 g/L) 2.4 L | Post | 88 | 85 |
| 5 | Flumioxazin (500g/kg) 280g | Pre | 3 | 18 |
| 6 | Pyroxasulfone (850 g/kg) 118g | Pre | 13 | 8 |

Demonstration strip of Glyphosate (450 g/L) 2.4 L plus Fluproponate (745 g/L) 3.0 L fb paraquat 2.4L/ha sprayed 28/09/2021 and Clethodim (360 g/L) 330 ml/ha sprayed 15/11/2021 outside trial area

**Results and Discussion (early days!!!)**

There are no perfect one size fits all treatments for CNG. However, there are some treatments that have potential for managing it and reducing its impact on farm. Glyphosate appears to be the most successful treatment but there is some regrowth since the assessments were made. The pre-emergent fluproponate treatment has improved since time of assessment a month ago and these results may keep improving as it is a long acting chemical. The double knock treatment of glyphosate plus fluproponate followed by paraquat a week later has down an excellent job of controlling CNG so far and it will be interesting to observe how much CNG comes back in this area. Herbicides alone will not control the problem of CNG. One key component that will aid in its management, is to establish productive perennial pastures that will compete against CNG to prevent germination and crowd out smaller plants. The use of forage crops or legume pastures for a couple of years and good fallow control before going back into a perennial pasture will help break up the weed cycle as well. CNG can be grazed and stock will readily eat it before it goes to seed and intensive grazing can help with its control.

For existing CNG populations a combination of herbicides, grazing pressure and growing healthy productive perennial pastures for competition will help drive down numbers seed in the soil seed bank. For early small incursions spot spraying and pulling out weeds will prevent a major incursion onto your property.

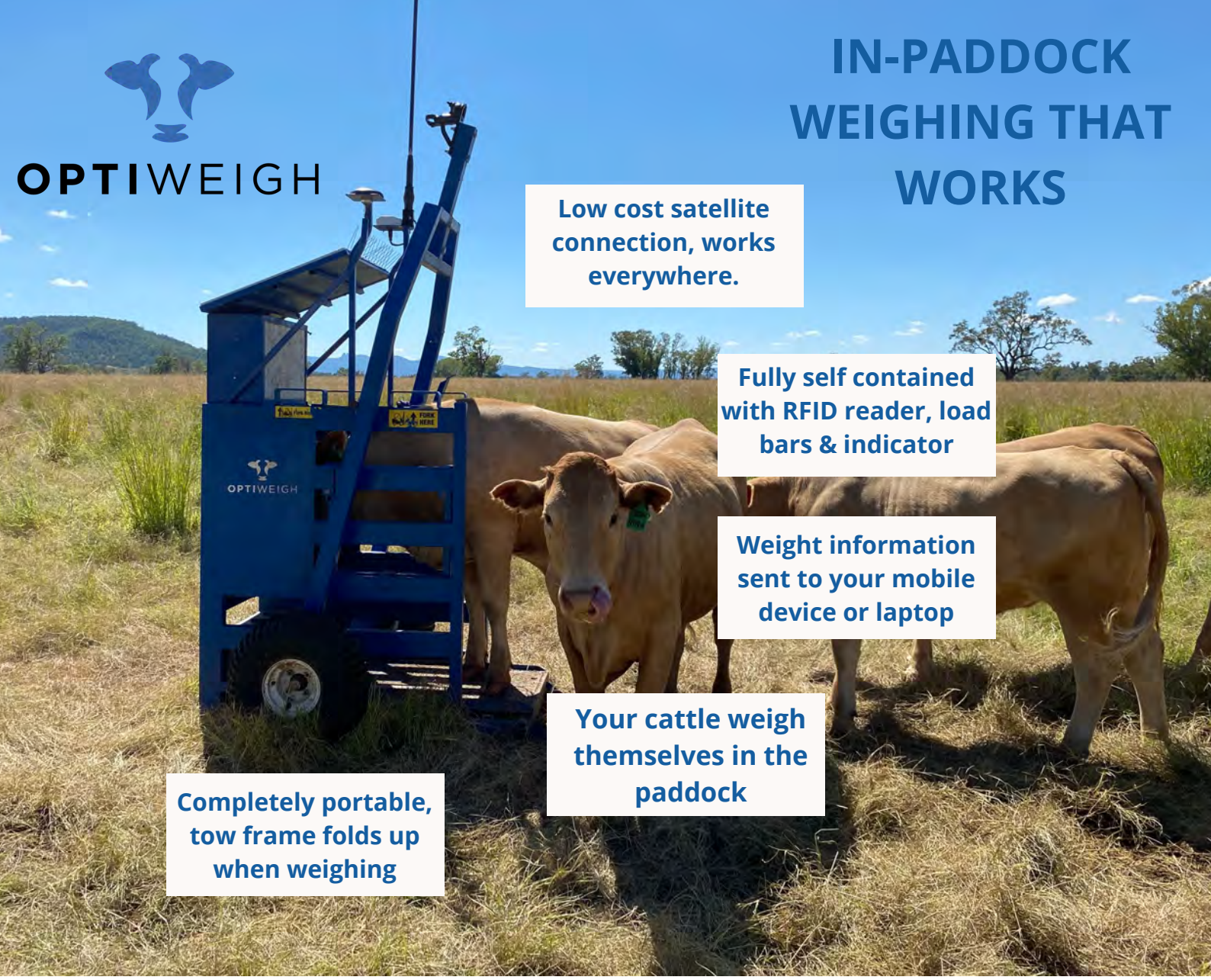
**n.b. Fluproponate withholding periods**

**Spot Spraying**- Do NOT graze or cut for stock feed, areas which have received spot treatment , for at least 14 days after spraying; AND, IF STOCK ARE GTRAZED IN THE TREATED AREAS AFTER THE 14 DAYS HAS PASSED, remove stock from treated areas and Do NOT slaughter or milk them for human consumption until they have been on clean feed for at least 14 days.

**Boom spraying**-.DO NOT graze, or cut for stock feed, areas which have received any treatment other than spot spraying, for at least 4 months after spraying. AND, IF STOCK ARE GRAZED IN THE TREATED AREAS AFTER THE 4 MONTHS HAS PASSED, remove stock from treated areas and DO NOT slaughter or milk them for human consumption until they have been on clean feed for at least 14 days.

OPTIWEIGH

# IN-PADDOCK WEIGHING THAT WORKS




**Low cost satellite connection, works everywhere.**

**Fully self contained with RFID reader, load bars & indicator**

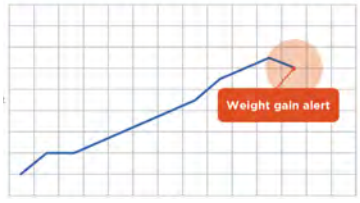
**Weight information sent to your mobile device or laptop**

**Your cattle weigh themselves in the paddock**

**Completely portable, tow frame folds up when weighing**

## THE OPTIWEIGH ADVANTAGE

1. An Optiweigh will pick up weight gain changes in less than 5 days




2. An Optiweigh will allow you to optimize target weights and confidently consign cattle for sale


3. An Optiweigh will reduce the need for yard weighing


OPTIWEIGH

**Ph 1300 678 493**

# DIGIFARM PROJECT UPDATE
# Livestock

## Background

The Digifarm Project is funded through the Australian Government Smarter Farming Partnerships Program which is run as part of the National Landcare Program. North West Local Land Services and the University of Sydney have teamed up to run a series of demonstration sites across the North West region to showcase the latest in agricultural technology and how it can be adopted into North West Farming Systems.

A component of the project is looking at livestock technologies, specifically in paddock systems for weighing cattle, and how the information collected can be best utilised to improve management and decision making on farm, providing real time return on investment within local grazing systems.

## How does it work?

Through this project we are evaluating two in-paddock weighing systems for cattle, the Optiweigh which is commercially available, and a Walk Over Weigh (WoW) unit. WoW systems are commercially available but the unit we are working with is fitted with new back end software that the University of Sydney is developing which is not currently available to the public.

The Optiweigh system is a transportable in paddock weighing system that accurately measures and records the weight of cattle. It was developed by Bill Mitchell, a grazier from the New England are who saw the need to monitor stock weight and daily gain from the paddock within their own grazing enterprise. For more information on the Optiweigh you can visit their website at https://www.optiweigh.com.au/

The WoW unit is designed as a static unit that is fixed in the paddock with cattle yard panels, generally around a water point. Cattle are scanned and weighed as they walk across the scales each day, sometimes multiple times a day, giving an accurate daily weight for each animal in the mob. It is possible to move the unit if necessary however it does take additional time and manual handling. We are in the early stages of the WoW project so we have less data to report on at this stage.

(L) Trade heifers inspecting the Optiweigh unit after it was put in the paddock
(R) WoW unit set up around a water point

# DIGIFARM PROJECT UPDATE
# Livestock

## OPTIWEIGH - What have we learnt so far?

ATTENDANCE & ATTRACTANT

- There is a degree of trial and error around which attractant will work the best and this may change depending on the preference and nutritional needs of the mob. The daily summary is an easy way to monitor attendance, and the need to top up or change the attractant without driving into the paddock to check.
- If livestock feed supplements are being supplied, loose lick, lick blocks etc, place the Optiweigh unit close to where these are fed to encourage attendance at the unit. This also makes it easy to monitor and top up the attractant tub within the unit as necessary.

DAILY SUMMARY & THE IMPORTANCE OF MONITORING THE DATA OUTPUT

The importance of monitoring the daily email summary was highlighted on a number of occasions, most notably:

- We had outlying weights popping up in a mob of trade heifers, on closer inspection it appears that we were picking up riding behaviour, thus weighing a heifer and a half! These outlier weights were influencing the average daily gain so it was important that these outliers were identified and removed from the data set.
- On a separate occasion we noted a significant drop in weights which was not reflected in the condition of the cattle in the paddock. On investigation we found that some mud and small stones had been pushed up under the load bars when the unit was moved following rain. This had caused the tare weight on the scales to drop to -18kg. This was easily resolved but we lost a week of data and this was an important reminder to check the data summary each morning and to physically check the tare weight when at the unit.

Display on the Optiweigh unit showing a –18kg tare weight

# DIGIFARM PROJECT UPDATE
# Livestock

## Farmer/advisor experience using the technology

Overall, our experience with the Optiweigh has been incredibly positive and we see huge potential for use of these systems within the North West to compliment grazing management strategies and improve decision making. They are easy to move, operate and monitor and we have correlated the accuracy of the weights with static weights taken on the cattle during routine management procedures at the yards.

Producer feedback on the WoW so far has shown a preference for using this system with their trade stock and feedlot animals where they want to track ADG for every animal every day, and as an early warning system for sub-clinical disease or injury before clinical disease is seen. Where the unit has been in with heifers retained for breeding we have noted that an Optiweigh would be better suited for monitoring the mob to track ADG and to plan management activities around the heifers achieving target mating weights.

## What's next?

1) We will continue to move the Optiweigh units around the region to trial them in different production systems and environments; most recently we have placed a unit in a feedlot near Narrabri to evaluate its application in intensive and confinement feeding situations.
2) The Optiweigh was trialled in a mob of cows and calves near Werris Creek, we found the older cows weren't interested in attending regardless of the attractant used, but the calves became more inquisitive as they neared weaning age with good attendance after weaning. The heifers from this mob have been retained as future breeders so we will follow them through with the Optiweigh to see if exposure to the unit as a form of novel stimuli as calves improves attendance when they have their own calves at foot.
3) An Optiweigh and a WoW unit are currently in a side by side trail in a commercial grazing and trading operation at Boggabri. This is a great opportunity to evaluate the data output each unit gives from the same mob, and to provide real world comparisons of the two units which we hope will help producers considering investing in an in paddock weigh system, determine which unit has the potential to provide the best ROI for their operation.

## Contact details

Name: Naomi Hobson, Senior Land Services Officer - Livestock

Phone: 0407 936 140

Email: naomi.hobson@lls.nsw.gov.au

Australian Government | National Landcare Program

# Digit-lucerne mixtures: What is the optimum ratio?

Sean Murphy, Mark Brennan, Sarah Baker, Graeme Schwenke and Suzanne Boschma
Tamworth Agricultural Institute, Tamworth: sean.murphy@dpi.nsw.gov.au

## Background

Tropical perennial grasses are highly responsive to fertility, especially nitrogen, which companion legumes can supply most economically. In recent years, the Tamworth pastures team have been investigating several temperate and tropical legumes as options for companion legumes. Each legume type offers a range of benefits and challenges in its establishment and for long-term persistence in mixtures with tropical perennial grasses.

Lucerne, our most productive and persistent perennial legume, is one of the legumes under investigation. It is highly competitive and good at accessing stored soil moisture. Lucerne begins growing earlier in spring than tropical grass. This earlier growth allows it to use any soil water stored from winter, giving it a competitive advantage over the tropical grass. In a mixed sward, this creates production challenges as the tropical grass hits peak production later in the growing season. The current experiment aims to find the best proportion of lucerne in a grass pasture, where lucerne can provide nitrogen to the grass but not dominate the pasture. Recent price surges in fertiliser prices (urea c. $1042/tonne, DAP c. $908/tonne) make this study an interesting and timely topic to discuss.

## Aim

What is the optimum ratio of lucerne to tropical grass to maximise productivity and water use efficiency?

## The experiment

We established the experiment at the Tamworth Agricultural Institute on a brown Vertosol in November 2018. There are five treatments with differing proportions (%) of digit grass cv. Premier and lucerne (L) cv. Venus; L0, L25; L50; L75, L100. Young plants were transplanted at a density of 8 plants/$m^2$ into plots with a full profile of stored soil water (Figure 1). We measure herbage mass, proportion lucerne, plant persistence and water use efficiency. All treatments receive annual single superphosphate (125 kg/ha), but only L0 (pure digit grass) receives urea nitrogen (equivalent to 100 kg N/ha).

***Figure 1**. Transplanting tubestock plants in November 2018.*

## What we have seen so far

The first year to November 2019 was extraordinarily dry, with 335 mm of rainfall at TAI (Figure 2a). Therefore, the full profile of stored soil water was essential to generate any plant growth. However, we saw conditions dramatically improve in the second and third years to November 2021 (Figure 2a). Digit grass tended to dominate growth in the first two years, while wetter and milder growing conditions have favoured lucerne over the past 12 months.

## Productivity

Over the three years, total production from digit grass (L0, 27.1 t DM/ha) has exceeded lucerne (L100, 23.0 t DM/ha, Table 1). However, production from the mixtures has exceeded them both, with 28.5, 30.7 and 27.9 t DM/ha for L25, L50 and L75, respectively (Table 1). This is encouraging to see, as it suggests that perhaps the lucerne is fixing sufficient nitrogen for the digit grass to support its growth. In addition, through higher ground cover and a fibrous root system, the digit grass is maximising water capture, infiltration and storage: a win-win.

Growing conditions over the recent 12 months has shown the differing responses of each species. A warm spring in 2020 was followed by a wet summer 2020-21, favouring digit grass. However, in 2021 above-average rainfall in autumn, winter and spring, has favoured lucerne. Relatively mild temperatures in October and November 2021 have favoured lucerne and delayed digit grass. As a result, for the recent 12 months, the L50 and L75 mixtures had the highest production (13.1 t DM/ha, Table 1), exceeding both digit grass (L0, 9.1 t DM/ha) and lucerne (L100, 11.8 t DM/ha, Table 1). In the mixtures, this illustrates how lucerne can come to dominate the sward and sets up an interesting dynamic for the remainder of summer 2021-22.

## Nitrogen fixation

A key role of lucerne in these mixtures is fixing atmospheric nitrogen, which can then cycle to the digit grass. The outperformance by the mixtures suggests that this is the case. However, throughout summer 2020-21, we used the $^{15}$N natural abundance method to estimate how much atmospheric N the lucerne fixes. At the start and end of the growing season, we took deep soil cores to assess initial and final soil N. At each harvest throughout the growing season we collected herbage samples from digit and lucerne to determine the relative abundance of $^{15}$N. These herbage samples are in the USA to be analysed by UC Davis, while the soil samples are analysed at TAI. From these data, we will attempt to calculate a N balance for the growing season to estimate how much N the lucerne fixed and what proportion of digit's N uptake came from the lucerne.

## Current soil water profiles

The dry winters of 2019 (rainfall, 81 mm) and 2020 (rainfall, 90 mm) resulted in minimal accumulated stored soil water. However, winter 2021 (rainfall, 162 mm) saw all treatments accumulate 50-60 mm of soil water (Figure 2a, b). As a result, above-average rainfall in the non-growing season of digit grass (L0) has achieved a full profile (Figure 3a). Interestingly, despite 1,116 mm of rainfall over the past 12 months, the lucerne soil profile has re-wet to only around 1.0 m (Figure 3c).

Compared with January 2020, treatments dominated by digit grass, are in a far better position than those dominated by lucerne; as shown by the blue shaded areas in Figure 3. This is because digit grass (L0) now has 250 mm more soil water and to full extent of the profile, while lucerne (L100) has just 88 mm more, located in the upper profile. The fifty-fifty ratio (L50) with 113 mm additional water sits approximately midway between L0 and L100 (Figure 3).

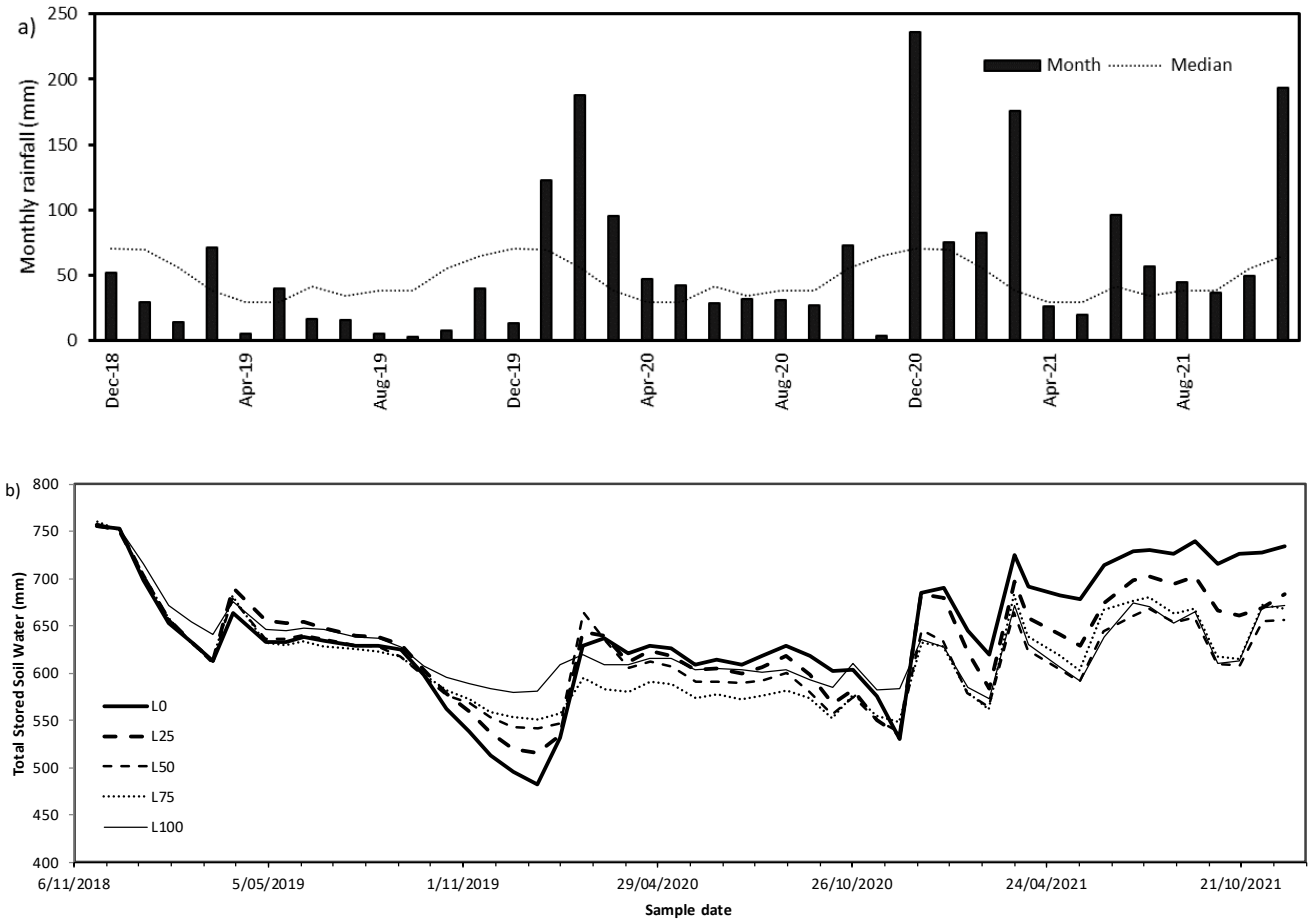



***Figure 2**. a) Monthly rainfall totals from December 2018 to November 2021, including totals for calendar years, and b) Total profile (0-1.9 m) stored soil water (mm) through time.*

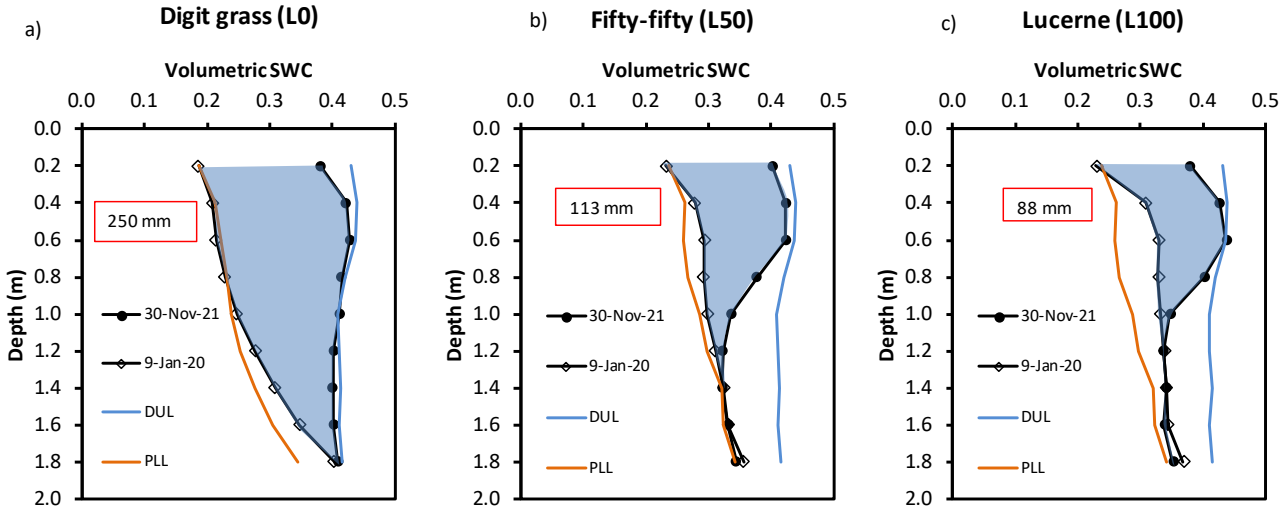



***Figure 3**. Contrasting increase in stored soil water from 9 January 2020 to 30 November 2021 for pure digit grass (L0), fifty-fifty (L50) and lucerne (L100). The blue shaded areas show where stored soil water has increased, and the rainfall equivalent is given in the box. Drained upper limit (DUL, blue line) and plant lower limit (PLL, orange line) show these species' full and empty points.*

***Table 1:*** *Herbage production, soil water status, water use and water use efficiency for each season and over the past year.*

| Treatment | Digit grass (kg DM/ha) | Lucerne (kg DM/ha) | Total (kg DM/ha) | Proportion lucerne (%) | Soil water change (mm) | Total $ET_a$ (mm) | WUE[1] (kg DM/ha/mm) |
|---|---|---|---|---|---|---|---|
| **Summer 2020-21 (rf. 395 mm)** | | | | | | | |
| L0 | 8165 | 0 | 8165 | 0% | 44 | 351 | 23.2 |
| L25 | 4248 | 1330 | 5578 | 24% | 33 | 361 | 15.4 |
| L50 | 4211 | 2444 | 6655 | 37% | 13 | 382 | 17.4 |
| L75 | 4113 | 2095 | 6208 | 34% | 7 | 388 | 16.0 |
| L100 | 0 | 4203 | 4203 | 100% | -9 | 404 | 10.4 |
| **Autumn 2021 (rf. 221 mm)** | | | | | | | |
| L0 | 627 | 0 | 627 | 0% | 59 | 161 | 3.9 |
| L25 | 481 | 1577 | 2057 | 77% | 46 | 174 | 11.8 |
| L50 | 510 | 1928 | 2438 | 79% | 26 | 194 | 12.6 |
| L75 | 743 | 1881 | 2624 | 72% | 42 | 179 | 14.7 |
| L100 | 0 | 2985 | 2985 | 100% | 18 | 202 | 14.8 |
| **Winter 2021 (rf. 162 mm)** | | | | | | | |
| L0 | 0 | 0 | 0 | 0% | 49 | 113 | 0.0 |
| L25 | 0 | 398 | 398 | 100% | 65 | 97 | 4.1 |
| L50 | 0 | 853 | 853 | 100% | 62 | 100 | 8.6 |
| L75 | 0 | 889 | 889 | 100% | 60 | 102 | 8.7 |
| L100 | 0 | 1224 | 1224 | 100% | 62 | 100 | 12.2 |
| **Spring 2021 (rf. 199 mm)** | | | | | | | |
| L0 | 379 | 0 | 379 | 0% | 1 | 198 | 1.9 |
| L25 | 290 | 2596 | 2886 | 90% | -26 | 225 | 12.8 |
| L50 | 206 | 2967 | 3173 | 94% | 2 | 197 | 16.1 |
| L75 | 131 | 3212 | 3343 | 96% | 8 | 191 | 17.5 |
| L100 | 0 | 3426 | 3426 | 100% | 16 | 183 | 18.7 |
| **Annual 2020-2021 (rf. 976 mm)** | | | | | | | |
| L0 | 9171 | 0 | 9171 | 0% | 152 | 824 | 11.1 |
| L25 | 5019 | 5901 | 10919 | 54% | 118 | 858 | 12.7 |
| L50 | 4927 | 8193 | 13120 | 62% | 104 | 872 | 15.0 |
| L75 | 4988 | 8077 | 13064 | 62% | 117 | 859 | 15.2 |
| L100 | 0 | 11838 | 11838 | 100% | 87 | 889 | 13.3 |
| **Total 2018-2021 (rf. 2003 mm)** | | | | | | | |
| L0 | 27151 | 0 | 27151 | 0% | -28 | 2031 | 13.4 |
| L25 | 17989 | 10527 | 28516 | 37% | -89 | 2092 | 13.6 |
| L50 | 14151 | 16577 | 30729 | 54% | -100 | 2102 | 14.6 |
| L75 | 11032 | 16871 | 27903 | 60% | -88 | 2091 | 13.3 |
| L100 | 0 | 23015 | 23015 | 100% | -90 | 2092 | 11.0 |

[1]Water use efficiency

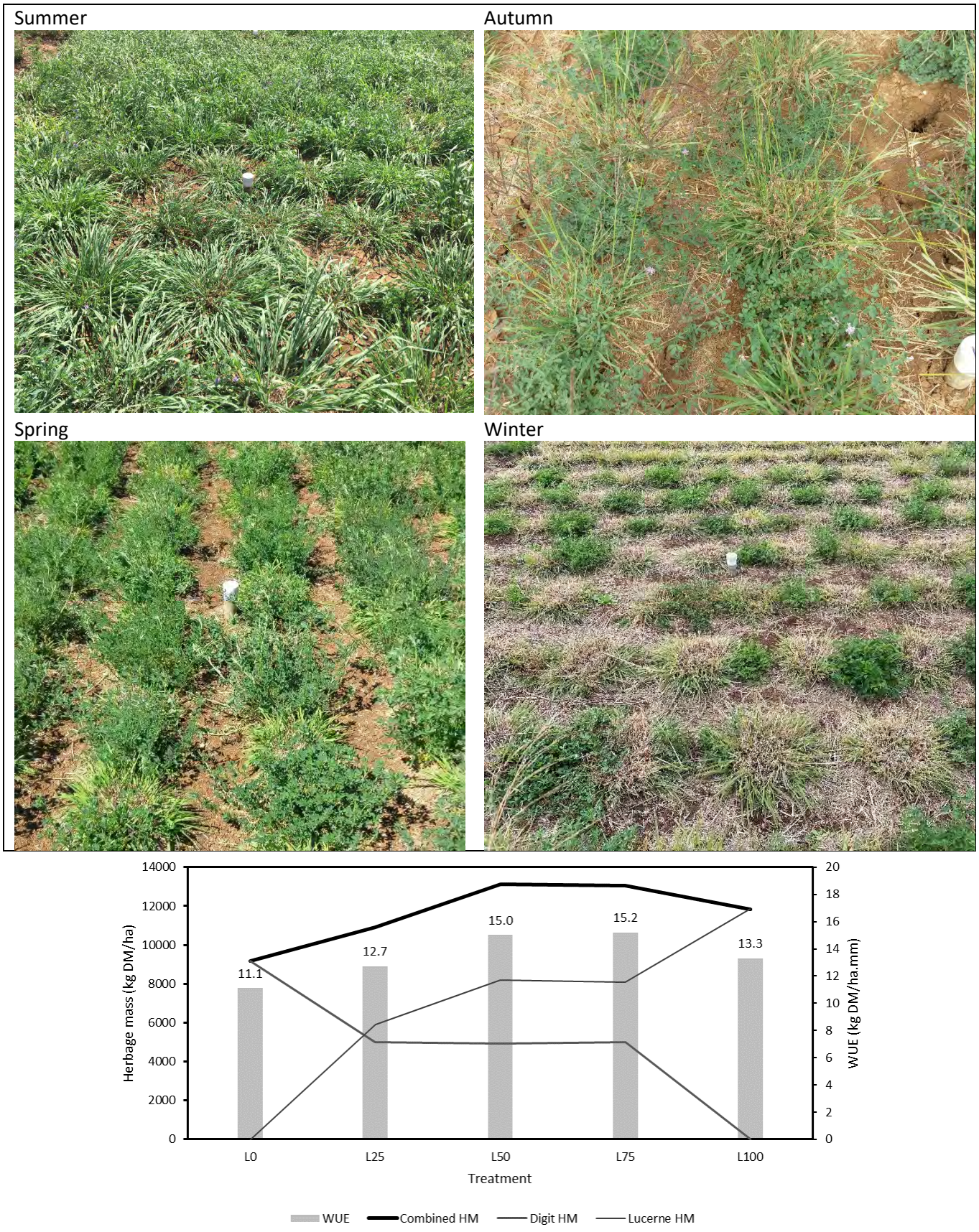



***Figure 4**. The four seasons of growth (clockwise; summer, autumn, winter and spring). Digit grass, lucerne and combined herbage mass (HM) and water use efficiency (WUE) for the 12 months to November 2021, in the five treatments with varying proportions of lucerne (L0-L100).*

## Acknowledgments

Technical support provided by Geoff Bevan, Peter Perfrement, Clarence Mercer and Brad Jenkins. This study is part of a project funded by NSW DPI and MLA Donor Company as part of the Livestock Productivity Partnership. The Livestock Productivity Partnership aims to boost the productivity of grazing systems and developing new research and development capacity via collaborations between;


To read more about these projects within the Livestock Productivity Partnership Program, visit the [Livestock Productivity Partnership, MLA Donor Company website]

NSW GOVERNMENT Department of Primary Industries

primefact

# Desmanthus

December 2021, Primefact PUB21/778, First edition

Suzanne Boschma, Senior Research Scientist, Pastures Unit, Tamworth

## Introduction

Desmanthus (*Desmanthus* spp.) is a non-bloating tropical legume providing high quality feed for cattle and sheep. It is native to northern America, Central and South America and the Caribbean and commonly used as a companion legume in tropical perennial grass pastures. Being a tropical legume, it grows during the warmer months of the year (Figure 1).

*Figure 1. Desmanthus plants have a range of forms; low growing reaching around 0.6 m in height to more upright growing to about 3.0 m tall. This is cv. Marc which grows to 0.6 m.*

## Advantages

- Drought persistent.
- Cold/frost tolerant. It drops all leaves following frost but regrows from the crown in spring.
- Can withstand heavy grazing.
- Non-bloating and anti-methanogenic.
- Leaf protein content is comparable to lucerne.
- Seeds prolifically and regenerates readily from seed.
- Deep-rooted with ability to extract soil water to 1.8 m on a clay loam.

## Disadvantages

- Short lived (3-4 years) perennial.
- Rhizobia specific.
- Does not tolerate prolonged waterlogging.
- Reported host of alfalfa mosaic virus (AMV).

**For the full Primefact go to...**

or search the NSW DPI website for 'Desmanthus Primefact'

**Phosphorus management and requirements of tropical legume pasture swards**

*Dr Jonathan McLachlan*

Legumes are an important component of many grazing systems as they improve pasture quality and productivity by fixing atmospheric nitrogen. However, tropical pasture legumes struggle to persist in the extensive grazing systems of northern Australia. This may be because the legumes are selectively grazing instead of the $C_4$ grasses which are less palatable, or because the legume component of the pasture requires more nutrients such as phosphorus to achieve their yield potential.

This project focuses on understanding the phosphorus requirements of tropical legume pasture swards and how phosphorus fertiliser applications can be managed to improve legume productivity and persistence.

A range of tropical grasses (e.g. Buffel, Digit and Rhodes) and legumes (e.g. Centro, Desmanthus and Stylo) have been grown in controlled-environment pot trials to determine their phosphorus requirements and associated nutrient management. So far, the trials have shown that the legumes are generally overwhelmed by the faster growth rate of the grasses, which is partly due to the better nutrient foraging ability of the grasses. Pasture management must therefore focus on actively advantaging the legume component to maintain its productivity and persistence in the sward.

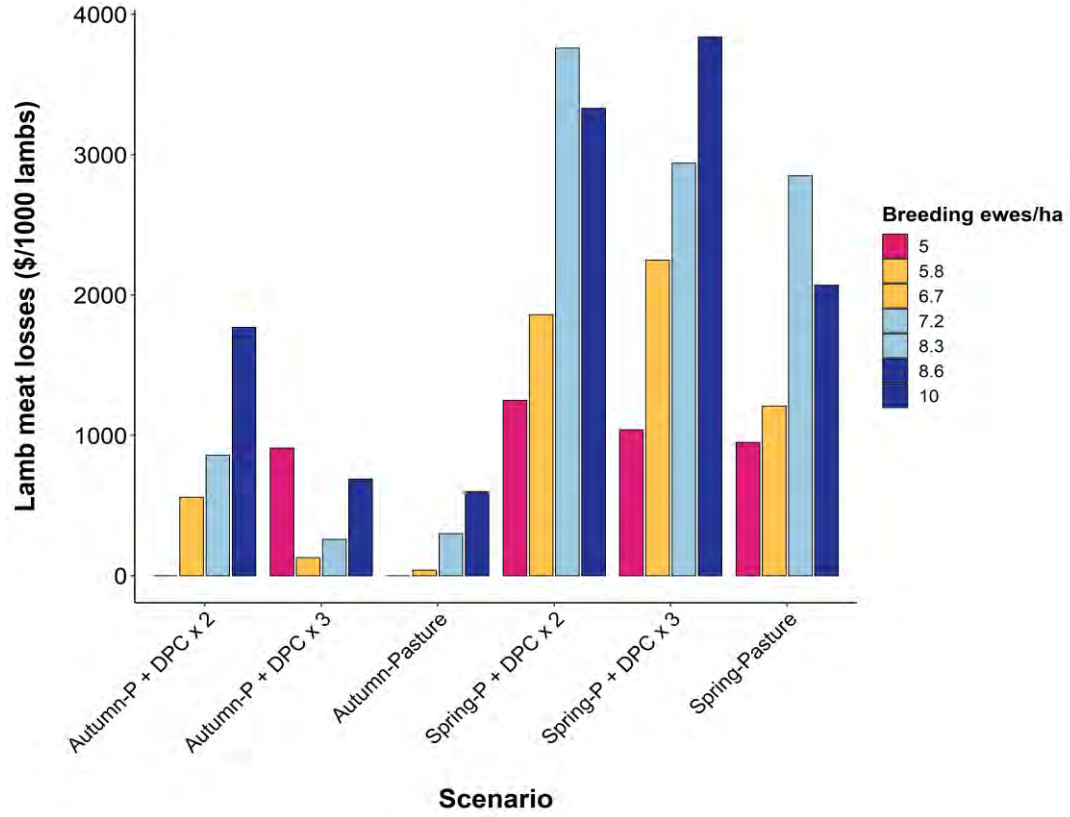
# Lamb production losses from Barber's Pole Worm

## Message

Autumn lambing can reduce lost production due to BPW
Stocking rate changes the relative outcomes when DPC are included

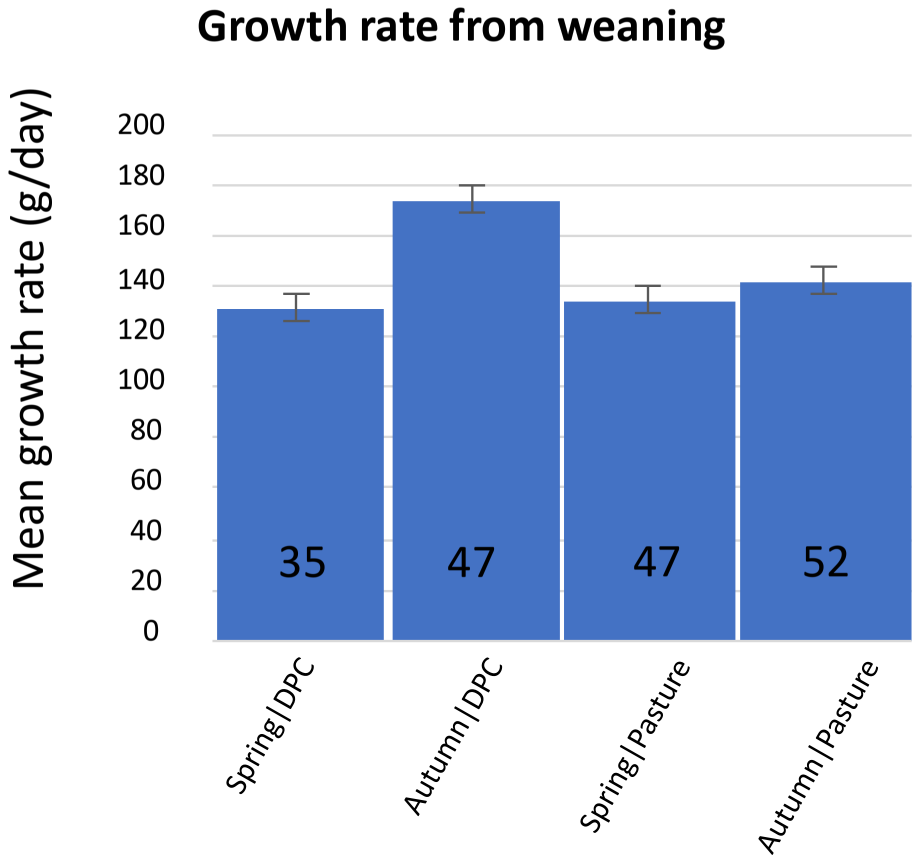
## Notes

Modelled for Armidale NSW by CSIRO researchers and Robert Dobson.
Autumn - lambs born in May.
Spring - lambs born in August/September.
DPC – farm system was 25% dual purpose crops (equal area of Canola and wheat), 75% pasture (Phalaris/white clover).
Pasture - farm system 100% pasture.
DPCx2 means 2 grazing events on crop
DPCx3 means 3 grazing events on crop




CSIRO

mla MEAT & LIVESTOCK AUSTRALIA DONOR COMPANY




## Message

Autumn lambing with DPC can result in higher growth rates even when finished on grain during drought conditions

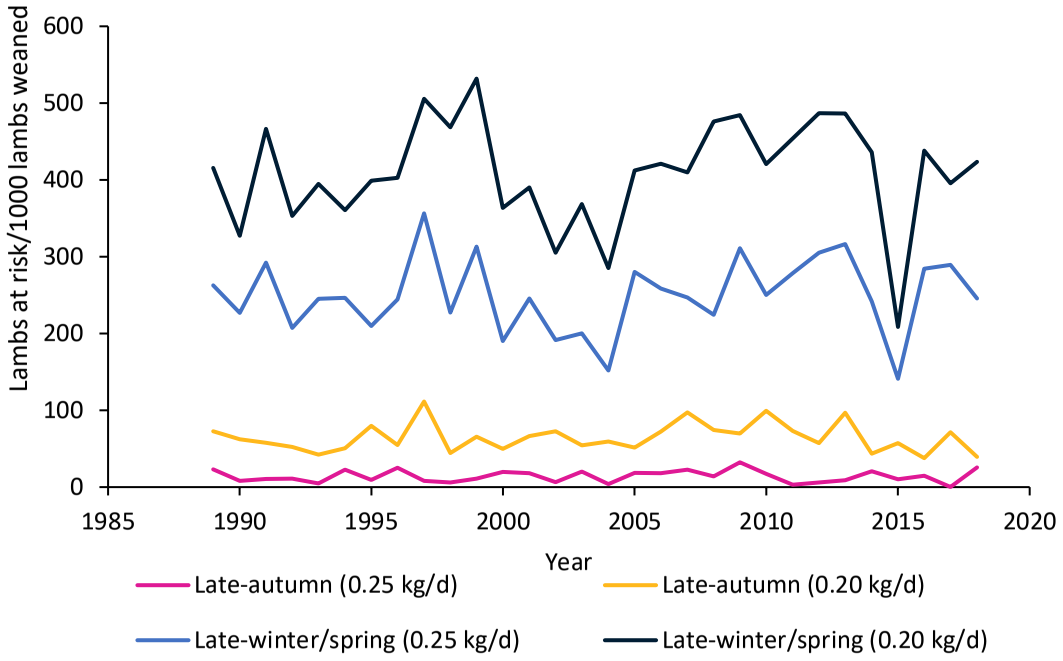
## Notes

First cross lambs (White Suffolk x Merino).
Autumn - lambs weaned 14th August 2019, sold 5th March 2020.
Spring - lambs weaned 6th January 2020, sold 10th June 2020.
DPC – farm system was 25% dual purpose crops (equal area of Canola and wheat), 75% pasture (Phalaris/white clover).
Pasture - farm system 100% pasture.
Lambs were finished on grain, but had some grazing on DPC in the Autumn|DPC group.
Numbers on the bars are the number of lambs in each group.
Bars show the average growth rate in g/day, corrected for differences in the age of each individual lamb.

CSIRO

mla MEAT & LIVESTOCK AUSTRALIA DONOR COMPANY

# Autumn lambing reduces the cost of flystrike in prime lamb production




## Message

For flystrike risk, autumn lambing has a significant advantage over spring lambing.

## Notes

Modelling study by CSIRO and TIA.
Late autumn lambs growing at 200 g/day have significantly lower risk of flystrike, and if grown at 250 g/day the risk is negligible in many years.
Savings can be achieved through reduced application of preventative chemicals, reduced treatments of strike and reduced production losses.
In the first year of a CSIRO field demonstration trial in Armidale, lambs born in May 2019 were finished for market without any preventative fly treatments or occurrences of strike. It was a tough season and the lambs grew on average at 171 g/day from birth till sale.

CSIRO

mla MEAT & LIVESTOCK AUSTRALIA DONOR COMPANY

# Local Land Services

# PROGRAZE® Registration form

Local Land Services will be hosting PROGRAZE® in the wider Narrabri area.

Commencing February 2022.

Course cost $200 per Farm Business

Includes one manual (Fee for additional manuals)

Reduced rate normally $400 per Farm Business

Sally Balmain, Livestock Officer North West Local Land Services will be the main facilitator the course.

**Contact:**

Sally Balmain: sally.balmain@lls.nsw.gov.au or 0428 280 809

George Truman: george.truman@lls.nsw.gov.au or 0427 505 040

Topics:

- Production, Profit and Sustainability
- Livestock production from pasture
- Sheep production and breeding
- Pastures, soil and grazing
- Pasture assessments
- Production targeting
- Cattle production and breeding
- Fodder budgets.

Business/Trading name: _____

Phone number: _____

Email address: _____

Participant name/s: _____

What would you like to learn from this course? _____

_____

_____

_____

Dietary requirements? _____

Brief description of enterprise: _____

_____

_____

_____

Are you prepared to host a PROGRAZE® day? _____

NSW GOVERNMENT

www.lls.nsw.gov.au/northwest

1300 795 299

# DIGIFARM EXPO

## SAVE THE DATE:
## 16-17 FEBRUARY 2022

*Agtech from the cloud to the paddock*


**Day 1 | 1.00pm - 4.30pm**
**Llara Research Farm, Narrabri**
*Live on-farm digital Agtech demos including cropping, livestock and environmental monitoring.*

**Day 2 | 8.30am - 4.30pm**
**Crossing Theatre, Narrabri**
*Digital ag presentations and Agtech trade exhibitors.*

***For enquiries, please contact guy.roth@sydney.edu.au***

NSW GOVERNMENT Local Land Services

THE UNIVERSITY OF SYDNEY — Institute of Agriculture

Australian Government | National Landcare Program

# Pasture Dieback

## Help minimise the spread of pasture dieback

### Know what to look for

- yellowing, reddening and purpling of leaves in summer growing grasses
- affected plants have fewer leaves, small seed heads and stunted roots
- plant eventually dies
- affected area rapidly increases following significant rainfall
- affected areas are colonised by broadleaf weeds and legumes

**NEW** identification guide

If you suspect dieback

Call the Exotic Plant Pest hotline **1800 084 881**

**www.dpi.nsw.gov.au**

NSW GOVERNMENT | Department of Primary Industries

# Please tell us what you think about some pasture topics

@NSWDPI_Pastures

@N@NorthWestLLS