

Alice Springs Rural Review

DEPARTMENT OF PRIMARY INDUSTRY AND FISHERIES



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Inside this issue:

Orange Creek Station: Winner of the Central Australian Producer Steer Challenge.....	1
Notes from the Editor's desk	2
Change of leadership for ASPIAC	4
Meeting of the horticultural minds of Central Australia.....	5
Grape expectations.....	6
Water that goes down the plug hole in Alice Springs gets used for Lucerne trial at AZRI.....	8
NTCA 2016 conference	9
Old Man Plains Research Station "signs up"	9
Animal Biosecurity Branch Selling or purchasing cattle in the NT - Brands, Waybills and NLIS implications.....	10
Will we see you at the show? ...	10
Effective control of cattle intestinal worms	13
Claim the Date.....	16
Newcastle Waters Field day.....	16
31 August 2016.....	16
MLA's Next big things.....	17
There's a new Commonwealth Biosecurity Act.....	18
Some useful DPIF Contacts.....	18

Orange Creek Station: Winner of the Central Australian Producer Steer Challenge

Chris Materne, Livestock Industry Development Officer



Jane Tincknell, (Former DPI&F) Wally Klein (Orange Creek), Chris Materne (DPI&F), Joella Klein & Billy Nelson (Orange Creek)

On Friday 3rd June the winner of the inaugural Central Australian Quality Graze Producer Steer Challenge was revealed at a celebratory dinner held at the Overlander Steakhouse in Alice Springs.

A group of eight steers from Orange Creek Station, owned by Wally Klein, was the overall winner. Wally also presented the top performing individual steer, a Brangus. The Orange Creek winning group of Herefords, Brangus and Brahman cattle grew at an average rate of 0.61kg per day while in the trial. All these animals graded MSA and achieved an average return of \$1008 over the 22 months in the trial and \$1604 over their lifespan. The runner- up in the steer challenge was Roy Chisholm of Napperby Station with Santa Gertrudis and Angus cross bred cattle.

All 54 animals in the trial performed exceptionally well with 91% of the 30 month old steers grading MSA for guaranteed meat quality. These animals averaged a growth rate of 0.55kg/day receiving \$5.12 per kg dressed that resulted in a total return of \$1586 per steer.

The different breeds in the trial performed very similar with relatively small winning margins which highlighted just how good the local native pastures are for cattle production, it being a real strength of the Central Australian cattle industry



WINNER Brangus Tag 12022
Orange Creek
Value added over 22 month trial period
Total \$1,138
Which equates to \$1.73 per day or \$52 per month



RUNNER-UP : "one-ear" Murray Grey Tag 12211
Curtin Springs
Value added over 22 month trial period
Total \$1,074
Which equates to \$1.63 per day or \$49 per month

Notes from the Editor's desk

Dear Reader

Last week a colleague and I had the opportunity to visit four stations from just south of Alice to the border with South Australia. Apart from the hospitality of producers, the exceptional winter season was most noteworthy with nutritious green pastures ranging from native grasses to Buffel grass and winter herbage in abundance. The purpose of this visit was to investigate opportunities for a follow up to the steer challenge, reported on in this newsletter, with an added focus on grazing land management. If you want to participate in future demonstration trials please contact one of the staff.

At a historical first meeting Horticulture producers from all over Central Australia gathered at AZRI to discuss the industry. An update on the activities of the Central Australian Horticultural Development Program was given which include the establishment of a range of crops being trialled at AZRI as well as on grower properties. Growers were also updated on soil surveys, water planning and other services provided by the Northern Territory Government. Read more on the activities of the Horticultural team in this edition.

The staff at AZRI are putting together displays on all these activities and much more so we invite you to visit us at the Maurie A Johns Pavilion during the Alice Show week end from 1 to 2 July.

Enjoy the read

Pieter Conradie

Seen at the inaugural Steer Challenge dinner



Bec & Ben Saint (Kurundi), Alethea Nicolle (Mulga Park), Barry Gerschwitz (Rabobank), Steve Cadzow (Mt Riddock)



Joella Klein (Orange Creek), Rebecca Cadzow (Mt Riddock)



Janet Chisholm (Napperby), Nicole & Ben Hayes (Undoolya)



Ashley Severin (Curtin Springs), Jane Tincknell (Former DPI&F)



Andrew Stephens (Landmark), Shane Nicolle (Mulga Park)



Chris Materne (DPI&F), Lyndee Severin (Curtin Springs)



Bryan Gill (OMP), Paul Smith (Tieyon), Sally Sims (OMP)



Sally Sims (DPI&F) Alethea Nicolle (Mulga Park) and Elizabeth Materne



Bryan Gill (DPI&F), Jane Tincknell (Former DPI&F)



Change of leadership for ASPIAC

Chris Nott recently handed over the reins as chair of the Alice Springs Producer Industry Advisory Committee (ASPIAC) to Nicole Hayes after a stretch of more than 10 years. Chris has agreed to remain on the ASPIAC committee for the immediate future to provide continuity.

The advisory committee makes a significant contribution to research and development in the Alice Springs region and also works with the Department of Primary Industry and Fisheries to showcase research results and new technology at field days. Other activities where ASPIAC has been involved include the Pastoral Industry Survey of 2010, a Meat Standards (MSA) pre trucking trial looking at the effect of hormonal growth promoters (HGP), and most recently the Quality Graze Producer Steer Challenge.

Through representation at the bi annual North Australia Beef Research Council (NABRC) and Northern Beef Industry Committee (NBIC) meetings ASPIAC has the opportunity to influence research being conducted to ensure representation of the needs of Central Australia.

Nicole and Benny Hayes have been involved in a number of research activities and as the President of the 'Centralian Beef Breeders Association Nicole is well positioned to interact with the Department and the Pastoral industry.



Chris Nott (middle) and Keith Holzward (right) receiving recognition for their dedication as Chairs of ASPIAC and KPIAC respectively at the North Australia Beef Research Council Meeting, Alice Springs, April 2016

BeefUp Day



Alice Springs – Thursday 28 July 2016

VENUE: DoubleTree Hilton Hotel
82 Barrett Drive Alice Springs

TIME: 9.30am – 5.30pm BBQ from 6.00pm

The role of ASPIAC is to receive and review the results of pastoral research carried out by the Department in Central Australia and to act as a body through which research results can be communicated to industry as well as to participate in the planning of research and extension programs that will support and service the Pastoral Industry in Central Australia.

Meeting of the horticultural minds of Central Australia



Some of the Horticultural Producers of Central Australia at the AZRI asparagus block

On Wednesday 20th April horticultural producers from Central Australia met at the Arid Zone Research Institute to get an update on the Central Australian Horticultural Development project.

Project leader, Stuart Smith gave an overview of the horticultural development project and what it wants to achieve, in summary, step-wise development of new horticulture in distinct precincts through Central Australia where there is adequate soil, water, infrastructure and management expertise.

The activities underway so far in the project include

- Grapes – 258 vines of 15 new selections and 3 industry standards have been planted at AZRI on Ramsay and Freedom rootstocks. These are red and white cultivars that could extend the season and reduce bunch shatter.
- Recycled water – from Alice Springs is piped to AZRI for the Soil Aquifer Treatment (SAT) Ponds, some has been diverted to a Lucerne project, where the effect of the recycled water on the soil will be quantified.
- Garlic: 5 tropical and sub-tropical cultivars, from Queensland and France have been planted this year on AZRI in a small trial
- Dates: Entomology is doing an Actara efficacy trial for *Parlatoria* Scale, and the pollination trial on the dates is complete.
- Climatic analysis: Sarah Tsai gave an overview of the work done with the bureau of Meteorology to quantify chill portions, frostiness and evapotranspiration in Central Australia. There was some discussion about setting up local weather monitoring stations on farm.
- Mangoes – new National Mango Breeding Program cultivars are being propagated in Darwin for trial plantings at Ali Curung.
- Brochure / investment prospectus: is being prepared by DPIF in conjunction with DLRM to highlight opportunities for horticultural investment in Central Australian precincts.
- Bush tomatoes – are being evaluated in conjunction with Dr Slade Lee from Southern Cross University.

Bob Williams gave an overview on the progress of the Cooperative Research Centre for Developing Northern Australia. It is still going ahead and the submissions have been received, and some work should commence in the new financial year. Before that, however, they have to set up their governance structure

which they are now in the process of doing. There will be agricultural programs relevant to Central Australia but the specifics are not yet finalised.

Sarah Fairhead, Regional Manager of the Department of Land Resource Management gave an update on what is happening with soil surveys and water planning. Soil surveys have commenced in Ti Tree, Tennant Creek and Ali Curung, and gradually move south. Water allocation planning is still continuing for Western Davenport, and Ti Tree has expired. More investigations will commence at Rocky Hill to determine the science around possible effects of horticultural operations on Town water supply.

Grape expectations

After 30 years research by the CSIRO, an exciting project is budding to life at the Arid Zone Research Institute in Alice Springs.

In partnership with the CSIRO, the AZRI has planted 15 new seedless table grape selections, both red and white and part of an Australia wide evaluation program.

Primary Industry and Fisheries Minister Gary Higgins said it's an important step in the research and one which may yield better, heartier grape varieties.

"Bred by CSIRO Agriculture, these selections will be tested against the three commercial varieties - Menindee, Crimson and Magic Seedless - to identify new superior varieties adapted to Central Australian conditions," Mr Higgins said.

"It is hoped the new varieties will reduce production costs and minimise berry collapse, poor budburst and low fruitfulness in sub-tropical regions.

"Over three decades, the Department of Primary Industry and Fisheries and CSIRO Agriculture have maintained a vine improvement program in Central Australia to provide viticultural industries with material suited to Australian conditions and industry needs.

"This trial of the new grapes is an integral stage in that research."



Early and late ripening types; and those with favourable long term storage and transport characteristics that could extend the season and provide opportunities to develop new export markets, will be targeted.

Between five and eight vines of each of the 15 new varieties on Freedom and Ramsey rootstocks have been planted at AZRI. With the control varieties, a total of 251 plants have been planted but it will be two years before they mature and bear fruit.

The horticultural research team in Central Australia will monitor the growth of the vines, and perform quality analysis once the vines reach maturity.



CENTRAL AUSTRALIAN HORTICULTURAL DEVELOPMENT PROJECT

The iconic Central Australian landscape from Tennant Creek to the South Australian border is a vast area of incredible landscapes. There are areas in this region where soil, climate and water coincide that are ripe for developing plant industries.

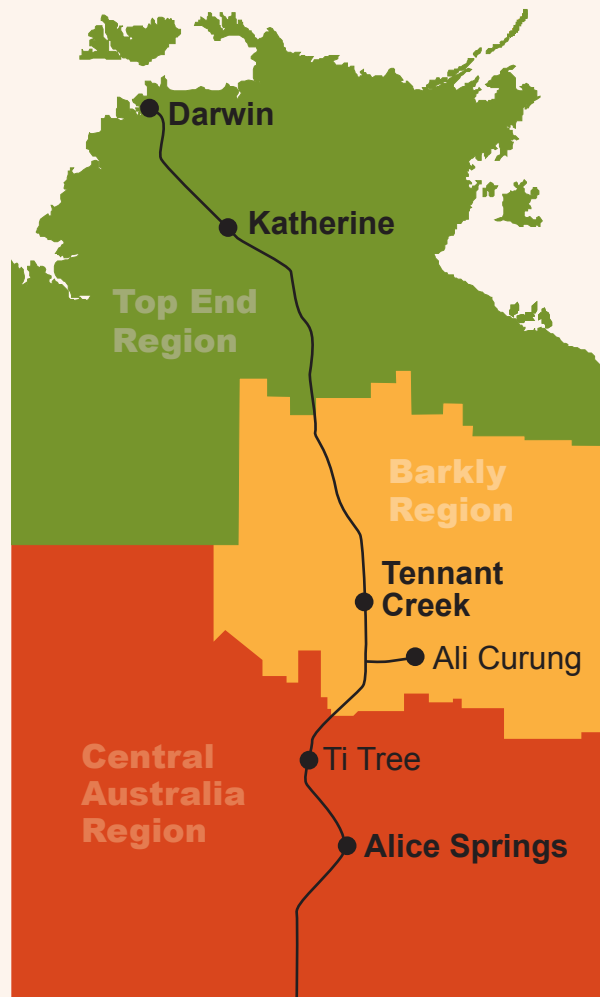


Small, local horticultural enterprises already grow melons, dates, mangoes, table grapes, fodder, bush foods and vegetables with opportunities for development in stone fruit, pomegranates, nuts and expansion of existing commodities.

Research and demonstrations at the Arid Zone Research Institute (AZRI) and on local properties are being conducted into the potential for new cultivars of table grapes, dates, fodder, bush foods and vegetables.

Market opportunities are being investigated for the right produce that coincides with the right soil, water and climatic conditions for optimal growth. The supply of this high quality technical and market information may assist to lower the risk for potential investors.

Northern Territory Government Departments, Industry and Stakeholders are working together to develop these opportunities in a sustainable way.



To learn more or participate in the program - contact the Central Australian Horticultural Development Project team at AZRI on 08 8951 8106.

Water that goes down the plug hole in Alice Springs gets used for Lucerne trial at AZRI

The Plant Industries Development team at the Arid Zone Research Institute is using treated wastewater from Power and Water's Ilparpa treatment facility for a lucerne trial.

An infrastructure project has set up two paddocks on the farm for the direct use of treated water from the ponds at Ilparpa. This water, after going down the collective plug holes of Alice Springs, is treated to remove solids and severely curtail its microbial population so it is safe to grow plants. The water is then piped to AZRI where the Department of Primary Industry and Fisheries uses it under strict safety conditions from the Department of Health.

The water still contains significant amounts of dissolved ions, which is typical of recycled water around Australia. "The water has an electrical conductivity of about 1.8 deci-seimens per metre, which is the same as recycled water from Adelaide or Melbourne, for example. The aim of our trial is to find out what this quality of water will do to the local soil under a cropping regime. We started with lucerne because it is a local crop with a long history in the area, it is not for human consumption, and we can use it on-farm for our

animals", Stuart Smith, leader of the project explained. "Our biggest concern is build-up of salinity, but we hope to be able to manage this with crops that take up a lot of ions from the soil and regular flushing with better quality water".

It is proposed that the second paddock is used to trial fruit crops in coming years. "We will set up our back paddock to grow a number of fruit trees that have high economic potential in the region. We will use irrigation systems that will not allow contact between the water and the fruit to ensure safety. In any case, the quality of recycled water is getting higher and higher as technology improves and Power and Water upgrade their treatment systems so the risks are almost non-existent".

The productive use of this water is a great step forward in water sustainability in the Centre, diverting it to useful activities rather than losing it to evaporation. It is hoped that results from the use of this water will start coming in over the next 12 months.



Project leader Stuart Smith (standing) and Technical Officer Peter Bidgood (on tractor) planting the lucerne trial on recycled water at AZRI



Glen Oliver, Technical Officer, and Sarah Tsai, Research Horticulturalist, check the new growth

NTCA 2016 conference

The 32nd Annual Northern Territory Cattlemen's Association (NTCA) conference was hosted by the NTCA Barkly Branch in Alice Springs on 17th-18th March at the Convention Centre. The NTCA AGM, Ladies Luncheon, Industry Conference and Gala Dinner were all part of a great two-day program.

This year's theme 'The Business of Balance' challenged industry participants to consider and discuss the emerging issues facing current and future generations of producers. The program was broken into four sessions: Trade & Investment, Natural Resource Security, Is the Balance Right & Industry Matters with the last two being panel

sessions. The speakers and delegates included northern cattle producers, industry associates, government Ministers and representatives, as well as overseas guests.

The Ladies luncheon was a sell-out event held at the Tali restaurant with all the ladies looking lovely in their frocks. Much chatter and socialising was undertaken and old friendships renewed. The Gala dinner was held on the Helipad at the Double Tree by Hilton and a great night was had by all, a fitting end to another great NTCA conference.



Donna Hutchinson & Coral Allan at the DPI&F booth



Staff from Dept of Land Resource Management

Old Man Plains Research Station "signs up"

Old Man Plains Research Station has got two long awaited signs installed; with assistance from the Alice Springs Correctional Services metal fabricating section.

Bryan Gill, OMPRS Manager, designed the signage and with the help of Christopher Gosslett and Stephen Rosier from Correctional Services at the prison, the signs have been made and erected.

A big thanks goes out from DPIF, they look fantastic.



Animal Biosecurity Branch

Selling or purchasing cattle in the NT - Brands, Waybills and NLIS implications

Do you know what your legal obligations are under the *Livestock Act and Regulations*?

Brands in the NT – Under *Livestock Regulations 60(1)* A person must not sell, give away, exchange or receive travelling livestock that are unbranded cattle. Unbranded cattle, means cattle of at least 8 months of age that have not previously been branded. It is therefore compulsory to brand cattle before they are moved off a property or are sold, unless they are less than 8 months of age. You may apply to the Registrar for Special Permission to move Unbranded Cattle. Please discuss with your Regional Livestock Biosecurity Officer.

Cross branding Cattle/ Buffalo after purchase is not mandatory in the NT, however if livestock are not cross branded it provides no legal claim to purchased stock. Purchased cattle/buffalo need to be cross branded correctly to provide evidence of ownership. Please refer to Agnote – *Livestock Identification – Branding and Cross Branding in the NT*.

Waybills - It is a mandatory requirement for cattle, buffalo, sheep, goats, camels, alpacas, llamas, deer and pig owners to complete a waybill whenever stock are moved outside the boundaries of a property. PICs are required for both Origin and Destination properties. Pink copies must be sent to the Registrar within 28 days of livestock being moved.

National Livestock Identification System (NLIS) – NLIS devices (RFIDs) need to be attached to cattle before they leave the property. It is the responsibility of the owner of the property receiving cattle to ensure that the NLIS devices are read then transferred to the NLIS database within 48 hours of cattle arriving at the property.

Check out our Website <https://www.nt.gov.au/industry/agriculture/livestock> or contact your RLBO for assistance

Darwin Region
Rob Wait (A/RLBO)
Ph: 08 8999 2034

Katherine Region
Josh Haigh (A/RLBO)
Ph: 08 8973 9767

Tennant Creek Region
Tom Haines (RLBO)
Ph: 08 8962 4458

Alice Springs Region
Greg Crawford (RLBO)
Ph: 08 8951 8125



Will we see you at the show?

Please drop into the Maurie A Johns Pavilion during the Alice Springs Show for a cuppa and a catch-up on DPIF projects in Central Australia.

Seasonal Update - June 2016

Chris Materne, Pastoral Production, Alice Springs



Good chance for more rain over winter and spring!

A combination of a potential La Niña event in the Pacific Ocean, an increasing chance of a negative Indian Ocean Dipole, and very warm sea surface temperatures surrounding northern and eastern Australia, increases the likelihood of wetter and cooler conditions for the southern NT over winter and into Spring.

- **WETTER** than normal Autumn across the majority of the NT, especially across the southern NT for the June to August period.
- **COOLER** than normal days more likely across the southern half of the NT for the June to August period.

For further information go to: <http://www.bom.gov.au/climate/outlooks/>

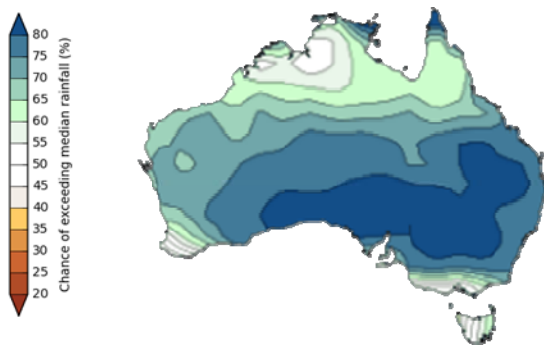


Figure 1: Chance of above the median rainfall. (June to August 2016)

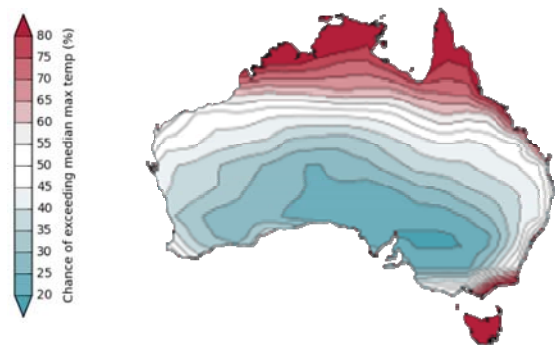
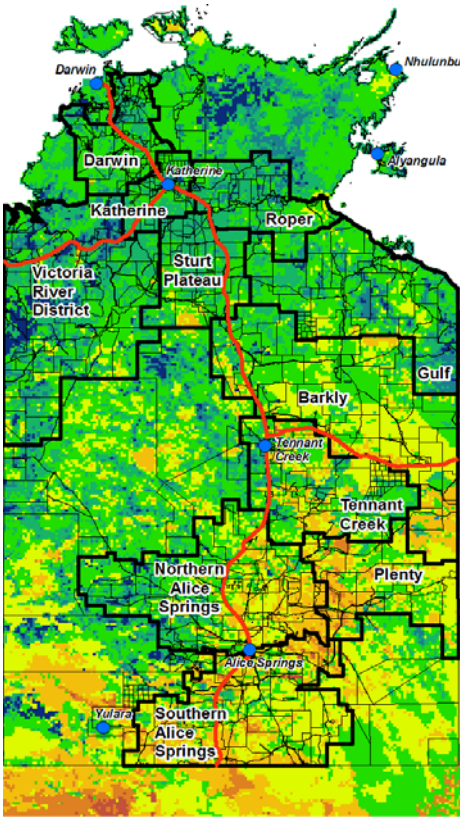


Figure 2: Chance of above the median maximum temperature. (June to August 2016)

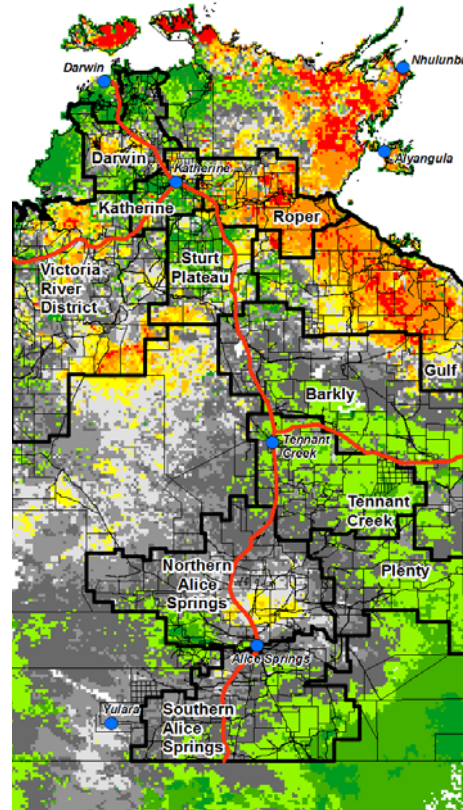
Indicator	Northern Territory Pastoral Districts				Comments
	Tennant Creek	Northern Alice Springs	Plenty	Southern Alice Springs	
2015/16 total pasture growth	↑	↔	↑	↑	Arrows indicate trend compared to the long-term median.
Current estimated standing biomass	↔	↑	↑	↑	Arrows indicate trend since previous quarter.
<u>Current seasonal outlook</u>	↑	↑	↑	↑	Arrows indicate the trend since previous quarter and taking into account the forecasted model predictions.
Current fire risk	↑	↓	↓	↓	Arrows indicate the trend since previous quarter.

AussieGRASS – June 2016

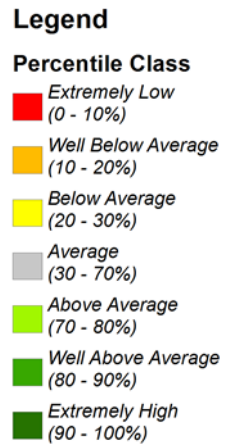
Chris Materne, Pastoral Production, Alice Springs



Current Total Dry Standing Matter
(as of the 1st June 2016)

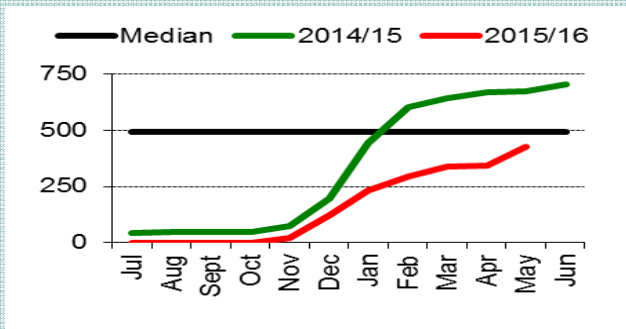


December 2015 to May 2016 Pasture Growth
(relative to historical growth since 1957)

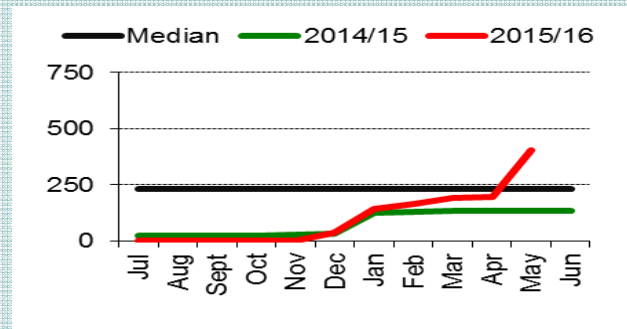


Median district pasture growth (kg/ha) — running total

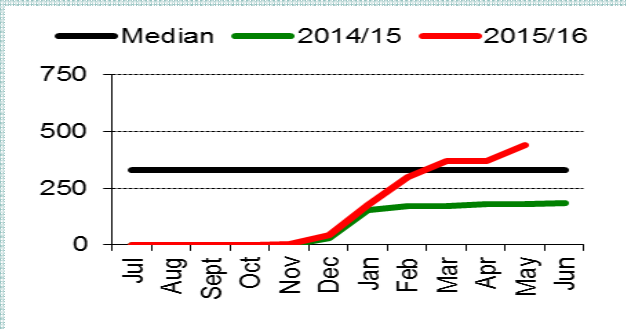
Northern Alice Springs District



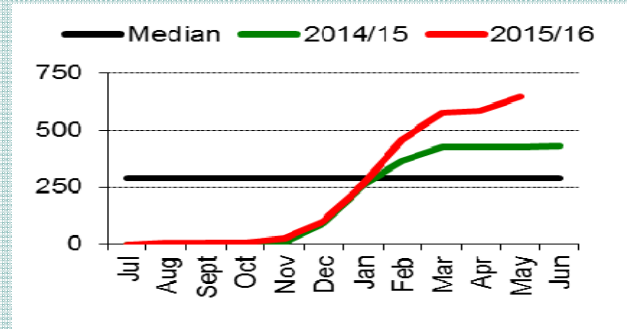
Southern Alice Springs District



Plenty District



Tennant Creek



If you would like further information, please contact Chris on 895 18111

Effective control of cattle intestinal worms

Jocelyn Coventry, Livestock Industry Development Officer

BACKGROUND

This article provides an update on cattle intestinal worms in the Northern Territory (NT) and advice on management for long-term control.

The latest NT-Wide Pastoral Industry Survey shows that cattle intestinal worm control was the second most frequent animal health treatment used on NT pastoral properties. Only botulism vaccination was ranked higher. In the Alice Springs region, intestinal worm control ranked as the equal-3rd most used treatment. An extract from this survey is given in Table 1.

Box 1.

- Intestinal worm control** is the 2nd highest-ranked animal health treatment on NT cattle properties.
- For longterm effective intestinal worm control **integrated pest management** should be considered.

Table 1. Surveyed NT pastoral properties that were treating cattle in 2010 to control intestinal worms (adapted from Cowley et al. (2015, p.45))

REGION	Alice	Barkly	Katherine	Top End	NT-wide
Percentage of properties	16%	38%	65%	69%	52%
Rank out of 12 treatments	equal-3 rd	equal-3 rd	2 nd	equal-3 rd	2 nd

Intestinal worms of three species (*Cooperia* spp., *Oesophagostomum* sp. and *Haemonchus* sp.) are endemic in cattle herds of the NT. Projects during the past five years have demonstrated the presence of significant worm egg counts (over 500 eggs per gram) (epg) in the faeces of young cattle (est. 6 to 18 months old) in northern and southern herds of the NT. Research in the Alice Springs region has recorded worm egg counts over 700 epg in weaner cattle after drought-breaking rain (Coventry 2013). Comparable ranges of worm egg counts from the latter projects are shown in Figures 1 and 2.

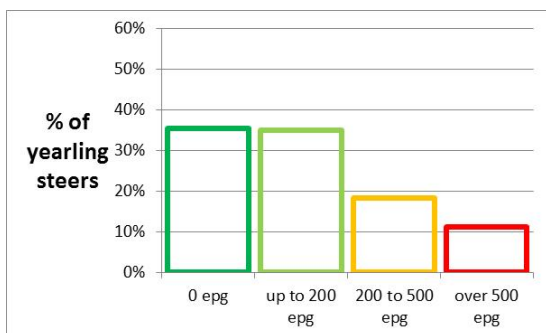
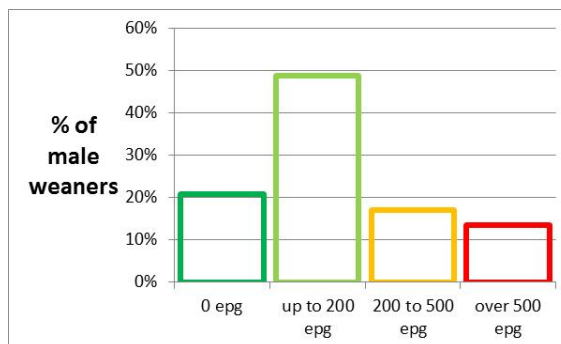


Figure 1. Faecal worm egg counts for yearling steers on ten northern NT properties (n=206 yearlings), summarised by the percentage of steers with each category of egg count (adapted from Streeter et al. (2014, p.149))

Figure 2. Faecal worm egg counts for male weaners on seven southern NT properties (n=82 weaners), summarised by the percentage of steers with each category of egg count (adapted from Tincknell & Coventry (2014, p.8))



Disease caused by intestinal worm infestation in cattle may not always be obvious. Anecdotal reports and field observations suggest that the risk may be increasing in the Alice Springs region (see Box 2.). Subclinical infestations can have a negative impact on cattle growth performance, so combination of management strategies should be undertaken to reduce the cost of intestinal worm control and the long-term cost to cattle production. Programs that co-ordinate several different management strategies for economic control of parasites are known as *integrated pest management (IPM)*.

Box 2.

Increasing **Intestinal worm risk in Alice Springs region**

where there is:

- contamination of pastures from dung of introduced cattle;
- survival of immature worms on cool & damp pastures;
- high grazing pressure in holding paddocks & watercourses;
- undeveloped immunity in weaner cattle.

UPDATE FOR CONTROL OF INTESTINAL WORMS

Presentations in 2016 by Australian veterinarians (AVA 2016) have highlighted the increasing risk of developing 'super worms' that are resistant to common worm treatments (anthelmintics). These could be a concern in cattle imported from properties that routinely and frequently use worm treatments. Use of IPM can reduce the risk of anthelmintic resistance. Table 2 (below) has been compiled with the help of veterinarians from some of the Australian companies that produce cattle worm drenches and pour-on treatments. This table addresses the 'hows & whys' of IPM, i.e.

- ✓ *how* cattle can develop immunity to intestinal worms;
- ✓ *how* cattle intestinal worms can become a problem;
- ✓ *why* different types of worm treatments can be effective management tools; and
- ✓ *why* laboratory testing or on-property investigations can provide vital feedback to develop and review a property-based IPM plan.

For more information on IPM, or to discuss IPM issues for a property-based plan, please contact your regional veterinary officer. For the Alice Springs and Barkly regions, phone 08-89518181.

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Coventry, J. (2013). *Review of aspects of breeding herd performance from beef cattle projects on the arid rangelands of the Alice Springs district*, Master's thesis by research, Murdoch University, (online) available at: <http://researchrepository.murdoch.edu.au/18322/>.

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Streeter, S., Perkins, N., Cowley, T., MacDonald, N. (2014). *Causal factors affecting variation in liveweight gain in north Australian beef herds*, Final Report B.NBP.0390, October 2014, Meat & Livestock Australia Ltd, North Sydney NSW, 379 p., (online) available at: <http://www.mla.com.au/Research-and-development/Search-RD-reports/RD-report-details/Productivity-On-Farm/Causal-factors-affecting-variation-in-liveweight-gain-in-north-Australian-beef-herds/1684>.

The Australian Veterinary Association (2016). *From the AVA President: Ivermectin – scratching beneath the surface*, (online) available at: <http://www.ava.com.au/13561>.

Tincknell, J. and Coventry, J. (2014). Intestinal worms are an issue for cattle in Central Australia, *Alice Springs Rural Review*, Department of Primary Industry and Fisheries, Volume 58 December 2014, pp.8-9., (online) available at: http://www.nt.gov.au/d/Content/File/p/NL/ASRR/asrr2014_12.pdf.

Table 2. Key strategies, tools and considerations for integrated pest management to enable effective control of cattle intestinal worms

	Target	Comment
STRATEGIES		
Immunity	Build cattle immunity with good genetics and good nutrition.	Focus cattle selection and breeding on a balance of genetics for both growth rate and resistance to parasites.
Respite	Give weaners respite from intestinal worm challenge while they develop immunity.	Remove weaners from paddocks with bulls. If required (e.g. average faecal egg count greater than 100 epg), treat all weaner cattle at weaning with a long-acting product and put onto fresh/ spelled pastures.
Grazing Management	Strategically stock and spell pasture.	Don't over-graze. Over-grazing may result in ingestion of more immature worms (larvae).
TOOLS		
Refugia	If under threat of 'super-worms', consider use of the 'refugia' concept.	'Refugia' are untreated home-bred stock with immunity to the local type of intestinal worms. Co-grazing with this stock enables the local worms to dilute and prevent establishment of a population of 'super worms'.
Quarantine	Treat introduced cattle during initial quarantine with short-acting anthelmintic.	A short acting anthelmintic assists surviving (imported) worm larvae to be filtered or diluted by the property's local type of worms (ref. 'refugia' above).
Faecal Testing	Undertake faecal egg counts and larval culture on cattle up to 18 months old.	Laboratory test results help to plan an individual property-based IPM program and get an annual/ biennial snapshot of the herd/paddock status.
CONSIDERATIONS		
Animal Welfare	Address animal welfare issues in the IPM plan.	Persistent or widespread scouring will always need investigation ... commencing with a faecal egg count.
Growth	Consider cost: benefit aspects.	An IPM should include consideration of issues such as compensatory growth, time to reach a critical mating weight and age-to-weight requirements for marketing.
Marketing & Withholding Periods	Consider withholding periods and export slaughter intervals.	An IPM should include consideration of marketing requirements.
Adult Cattle	Monitor and manage adult cattle to limit the use of worm treatments for this age-group.	Immunity, animal welfare, growth and marketing (as above) should be the key considerations when planning strategic use of intestinal worm drench or pour-on treatments for adult cattle in a property-based IPM plan.



Claim the Date

Newcastle Waters Field day

31 August 2016

NT Beef producers, this will be your chance to see the technology in action. During the day we will be demonstrating the software that we have been developing over the past five years and discussing how Newcastle Waters Station has been using the technology. There will also be an in paddock demonstration of the RLMS.

Keep up to date via the PPMT Project's Facebook page: Precision Pastoral Management Tools Project or contact Sally Leigo, 0467 770 661 or sally.leigo@nt.gov.au



Keep up to date with the PPMT project via:



Precision Pastoral Management Tools Project



@PPMT_project



@PPMT_project

MLA's Next big things

1. Fully inked

Animal health

A tattoo that can be applied to animals using a simple, single-use patch, and which will change colour according to their health status.

The goal is to develop intelligent inks that will react to progesterone (pregnancy), cortisol (stress) and high temperature (infection or heat stress).

Potential applications include tattooing the noses of breeding cows with a progesterone-sensing ink. When it comes time to pregnancy test, producers could run the cows up the race and draft based on tattoo colour, providing significant labour efficiencies.

Richard Apps, MLA Program Manager Genetics and Sheep R&D // E: rapps@mla.com.au



2. Numbing pain relief

Animal welfare

Castration will be less painful with the 'NumNuts' device.

The tool, designed to be used by producers, applies a ring and local anaesthetic simultaneously, greatly reducing animal discomfort and stress.

With the R&D phase winding up, the emphasis is now on finding a commercial partner to deliver 'NumNuts' to the marketplace.

Dr Jim Rothwell, MLA Program Manager Animal Health, Welfare and Biosecurity // E: jrothwell@mla.com.au



3. Efficient converters

Grassfed cattle productivity

It may be 'blue sky' research now, but work on identifying and transferring energy-efficient rumen microbes could have huge implications for herd wellbeing, profitability and a reduction of the industry's carbon footprint.

Researchers are drilling into the microbial population of the rumen and finding new biochemical pathways to manipulate animals' ability to convert feed to energy.

By transferring rumen fluid, animals could be pre-programmed from weaners to make them more efficient digesters for their intended environment, for example, for the feedlots of northern Australia.

The win-win is that more efficient feed converters tend to have lower methane emissions.

**Dr Nigel Tomkins, MLA Manager Grassfed Beef R&D
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These excerpts are from an article originally appearing in Meat & Livestock Australia's *Feedback* magazine (March/April 2016 edition) www.mla.com.au/feedback.

Feedback magazine and copies of the full article are available from AZRI Library, please contact the library staff on 89518134 or azri.library@nt.gov.au

The team at Alice Springs Rural Review would like to thank Meat & Livestock Australia for allowing us to use these excerpts. Other predicted "Big Things" are:

- 4 The information Superhighway (cattle genetics)
- 5. Powerful Pastures (feedbase)
- 6. Traits for the plate (sheep genetics)
- 9. A step forward (animal health) and
- 10. In neutral territory (environment)

7. Strengthening the chain

Market information

Livestock Data Link (LDL) aims to provide producers with more timely and accurate slaughter feedback, showing producers their livestock in processor grids and how they performed relative to other stock (in a graphical format). It also provides links to online support tools when non-compliance is identified.

The goal is to lift compliance to market specifications, saving the beef industry up to \$51 million a year and the lamb industry \$8.4 million a year in losses due to non-compliance. LDL is being piloted in nine supply chains across 15 cattle and sheep plants.

**Jo Quigley, MLA Manager Integrated Industry Systems
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8. It's a scan

Value chain

Real-time, objective measurement of profitable carcase traits that determine elements of meat yield and eating quality will be delivered by modern scanning technology.

This technology may include high definition cameras, dual-emission X-ray imaging, CT scanning, hyperspectral cameras and will have applications in beef, sheep and goat processing, as well as live animal measurements.

Objective measurement will underpin value-based pricing, with research showing significant benefits for producers turning off animals that display these desirable carcase traits: up to \$900 more for cattle and \$90 more for lamb, compared with prices based on traditional weight and subjective fat measurements.

**Dr Alex Ball, MLA General Manager Red Meat Innovation
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There's a new Commonwealth Biosecurity Act

On 16 June 2016 the Department of Agriculture and Water Resources Biosecurity Act 2015 replaced the Quarantine Act 1908.

This is a comprehensive modernisation of Australian biosecurity legislation and work will continue over the coming years to fully implement the Biosecurity Act and to realise its full benefits.

There are no changes to the way existing import conditions take into account the animal and plant health status of different states and territories as a result of the Act coming into effect.

The Australian government and states and territories will continue to work together on ensuring regional differences supported by scientific evidence are reflected in Australia's import conditions.

The Commonwealth will have new powers to manage onshore biosecurity risks (including the 12 nautical mile marine zone).

The Commonwealth will work with states and territories to determine when or how these new powers may be used with state and territory legislation to more effectively manage onshore biosecurity risks. The Commonwealth will also identify what thresholds must be met, and how to evaluate these, for the biosecurity emergency declaration powers in Part 1 or Chapter 8 to be triggered.

The legislation provides for a single Australian-wide ballast water and sediment management regime for both international and domestic vessels consistent with the International Convention for the Control and Management of Ships' Ballast Water and Sediments. The implementation of domestic ballast water regulations has been delayed until the International Convention comes into force.

For more information, please visit: www.agriculture.gov.au/biosecuritylegislation

Some useful DPIF Contacts

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Regional Veterinary Officer	Peter Saville	89518181
Manager, Central Australian Horticulture Development Project	Stuart Smith	89518168
Manager, Water Microbiology Lab	Cinzina Rovida	89518110
Regional Executive Officer	Susan Turner	89518102

Pastoral Market Update

DEPARTMENT OF PRIMARY INDUSTRY AND FISHERIES



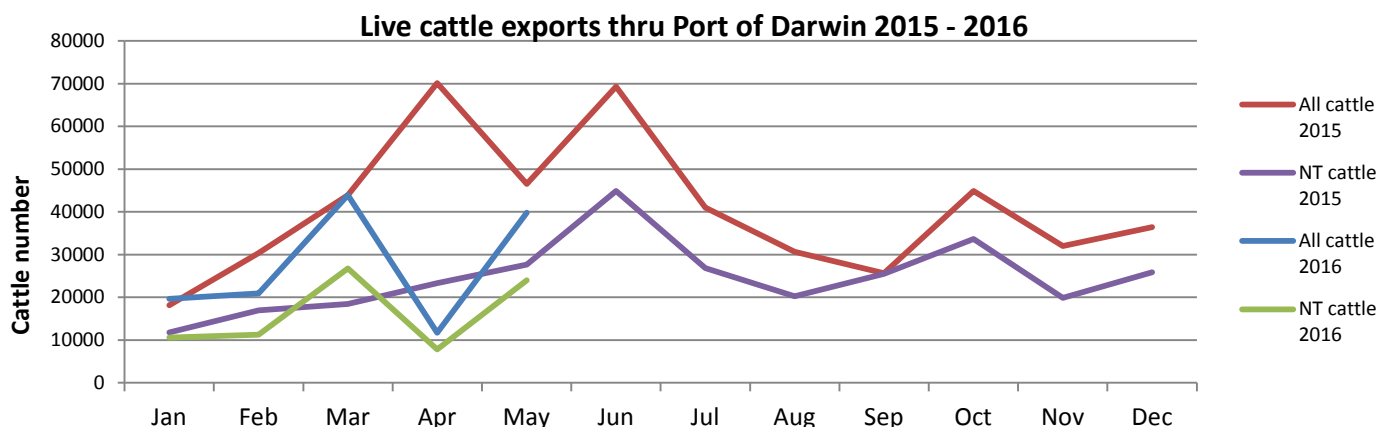
Live Cattle Exports via Darwin Port – May 2016

Please note: figures are for cattle exported through the Port of Darwin only; some NT cattle are exported through interstate ports.

Destination	Export of ALL CATTLE (including interstate) from Darwin Port							Export of NT CATTLE from Darwin Port (estimate only)						
	2014	2015	Last year to 31/05/15	YTD to 31/05/16	May	Last month	Difference	2014	2015	Last year to 31/05/15	YTD to 31/05/16	May	Last month	Difference
Brunei	4,925	4,122	1,029	1,999	1,099	0	1,099	4,925	2,069	0	1,212	663	0	663
Indonesia	386,183	341,759	158,465	114,189	32,228	8,812	23,416	251,232	197,155	72,463	67,385	19,433	5,904	13,529
Philippines	16,080	23,611	10,927	1,743	0	1,743	-1,743	11,221	13,559	4,545	1,168	0	1,168	-1,168
Sabah	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sarawak	0	300	300	0	0	0	0	0	0	0	0	0	0	0
Malaysia	22,309	11,503	1,470	3,700	2,895	0	2,895	15,708	7,499	932	2,237	1,746	0	1,746
Vietnam	64,461	100,119	34,612	14,380	3,593	1,165	2,428	41,391	63,998	19,189	8,552	2,167	781	1,386
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Thailand	0	6,154	2305	0	0	0	0	0	3,610	1,097	0	0	0	0
TOTAL	493,958	487,568	209,108	136,011	39,815	11,720	28,095	324,477	287,892	98,226	80,553	24,008	7,852	16,156

May at a glance

- 39,815 cattle through the Darwin Port during May; 28,095 more than last month and 6,735 less than during the month of May last year.
- 24,008 NT cattle through the Darwin Port during May; 16,156 more than last month and 3,680 less than during the month of May last year.



OTHER LIVESTOCK EXPORTS VIA DARWIN PORT

Includes NT and interstate stock.

Destination	Buffalo		Goat		Camel	
	YTD	May	YTD	May	YTD	May
Brunei	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0
Philippines	0	0	0	0	0	0
Sabah	0	0	0	0	0	0
Sarawak	0	0	0	0	0	0
Malaysia	0	0	0	0	0	0
Vietnam	1,194	182	0	0	0	0
Egypt	0	0	0	0	0	0
Thailand	0	0	0	0	0	0
TOTAL	1,194	182	0	0	0	0

NT CATTLE MOVED INTERSTATE

Destination	Number
NSW	816
QLD	24,929
SA	6,511
VIC	805
WA	3,547
Total	36,608

NATIONAL CATTLE PRICES

www.mla.com.au/prices-and-markets

CURRENCY EXCHANGE RATES

www.oanda.com/currency/converter

Total Cattle, Port of Darwin								NT Cattle, Port of Darwin							
2008	2009	2010	2011	2012	2013	2014	2015	2008	2009	2010	2011	2012	2013	2014	2015
364,944	347,314	295,605	269,617	246,990	359,616	493,958	487,568	295,539	304,818	272,749	253,797	234,249	308,784	324,477	287,892

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