Questions and opportunities at the Kidman Springs Field Day

Trisha Cowley, Beef Extension Officer, Katherine

Are you asking the right questions about your business? Are you collecting the right data to ask the right questions? These were some of the questions asked at Kidman Springs Field day on the 13th of August. Despite the issues that challenge the NT pastoral industry, there was an overwhelming message that considerable gains can be made in productivity through fine tuning of key management strategies. The day was attended by 73 people, which included 27 producers representing 23 properties with a combined total of around 285,000 head.

One of the key messages was the significant opportunity to lift herd productivity and profitability in the northern beef industry. Steve Petty, director of Northern Development Company, said that the recently published Northern Beef Situation Analysis highlighted some big opportunities. Generally it is accepted that producers are running pretty tight businesses in terms of expenditure, so there isn’t much room to cut costs, but Dr Petty pointed out there was significant opportunity to improve cost of production through improving herd productivity. He used the example of Heytesbury Beef during the 1990s, who moved weaning rates from around 50% to 80% over ten years. This was largely due to fine tuning of herd management strategies and strategic development of under-utilised, higher productivity land. Getting the stocking rate right, weaning twice a year down to 100–150 kg, strategic supplementation, culling for fertility and age, focussed heifer management, and low stress mustering were some of the strategies leading to improved productivity. Dr Petty also advised considering increasing carrying capacity through water point development of under-utilised pastures, but counselled producers to look at a range of options and compare the returns for each.
Like Dr Petty, DPIF’s Kieren McCosker also believed that producers could achieve gains through fine tuning multiple strategies, each offering small improvements, rather than looking for silver bullets. The quote he used from Canadian shipping magnate, Hugh Allen, summed it up well, “Jumping at several small opportunities may get us there more quickly than waiting for one big one to come along”. Kieren spoke about the major factors affecting reproductive performance highlighted in the Cash Cow project. Nutritional management was a message repeated throughout the day. Body condition score, protein and energy status were determined to be major factors impacting foetal and calf loss and pregnancy within four months of calving in the Cash Cow project. Strategies such as phosphorus supplementation of heifers and aged cows in deficient country, wet season spelling and lactational management (i.e. attention on calving periods and weaning opportunities) were examples of how nutritional and environmental stressors could be managed. Another example of fine tuning was avoiding mustering within a month of peak calving as this led to increased foetal and calf losses, particularly in heifers.

Geoffry Fordyce challenged the crowd with his presentation entitled “Do you have a problem?” He wanted to know, “Are you asking the right questions about your beef business? Because if you don’t ask the right question, you won’t get the right answer. Are you collecting the key information that you need to really assess the productivity of your beef breeding enterprise? Do you know what is achievable? How do you stack up against that?” One of the strengths of Cash Cow was that it established achievable (top 25% of producers) production and performance for broad country types, allowing producers to gauge how their breeding herds are performing. Geoffry used weaner production as a simple way of looking at how your herd is tracking. Generally, weaner production (kg weaned per cow retained in the previous year) should be roughly equal to annual yearling growth. For example, if your country can put 100 kg on steers annually, then you should be weaning at least 100 kilograms per cow retained. An example of this would be an average weaning weight of 160 kg, and an average lactation rate of 60%: (160 kg x 60% = 99 kg/cow retained). Geoffry pointed out that good management can lift weaner production over and above your annual yearling production, however. The DPIF Selected Brahman herd is an example of this.

Over the previous four years the Selected Brahman herd has achieved an average weaner production of 165 kg at Kidman Springs, where the annual yearling growth was only 110 kg. The Cash Cow project found that the typical weaner production for the Northern Forest was 93 kg, and that the achievable level was 112 kg, suggesting that Selected Brahman herd is performing very highly. What makes them different? The Selected Brahman bull breeding herd has been selected heavily for fertility for the past 20 years. Cows must raise a weaner each year to stay in the herd, and bulls are selected based on fertility traits such as high semen morphology, large scrotal size, excellent dam calving history and early age of puberty. These policies, combined with short seasonal mating, have had a strong effect on the ability of Selected Brahman cows to produce live weight from the available feed. For more information on the Selected Brahman herd, contact Whitney Dollemore (Whitney.Dollemore@nt.gov.au).
In his typically entertaining style Geoff Niethe talked about another of the key profit drivers outlined in the Northern Beef Situation Analysis—breeder mortality. Geoff encouraged the audience to ask some of the same questions that Geoffry Fordyce did; “Is there a problem? How do I measure it?” While acknowledging that breeder mortality can be difficult to get a handle on in northern Australia, due to cattle movement and lack of clean musters, Geoff pointed out that there was considerable evidence that breeder mortality was higher than typically reported by producers.

One percentage change in breeder mortality has far greater economic consequences for a business than corresponding changes in other key profit drivers; reproductive performance or turnoff weights, hence it is financially smart to closely monitor breeder mortality. As rules of thumb Geoff stated that at 5%, breeder mortality was negatively impacting your bottom line, over 7% and it needs to be addressed as a matter of urgent priority. For those challenged to get an accurate handle on breeder mortality due to difficulties getting firm cattle numbers in any one year, Geoff suggested using the bang tail calculation method commonly used in wildlife studies to determine the true number of cattle in a paddock over a period of time.

\[ N = \frac{A_1 \times B_2}{Y} \]

Where \( N \) = total population
\( A_1 \) = number of cattle bangtailed at first round
\( B_2 \) = number of cattle mustered at second round muster
\( Y \) = number of \( A_1 \) animals mustered in second round muster that were bangtailed at first round muster

In 2008 the Senepol Cross breeding project was initiated with the intention of finding a way of producing animals which are more acceptable to southern domestic markets but do not compromise herd productivity or acceptance in our key live export markets. The F1 Senepol animal has definitely achieved this, as outlined by Tim Schatz. F1 Senepol steer progeny were heavier at weaning and outperformed Brahmans in growth on pasture. They also had better meat quality when placed in a Queensland feedlot and appear to be having better heifer performance in the early stages of evaluation. They also had better meat quality when placed in a Queensland feedlot and appear to be having better heifer performance in the early stages of evaluation. In addition, F1 Senepol steers outperformed Brahmans in a feedlot in Indonesia and were highly regarded by the feedlotter and buyers. Tim has put together a comprehensive handout on the trial results. Please contact him if you would like a copy: Tim.Schatz@nt.gov.au.

Lastly and definitely not least, Dionne Walsh caught our attention with her talk titled, “Burn your bush before it bites back”, and did not disappoint. Twenty-one years of research for the Shruburn trial has left researchers very confident about their recommendations of late dry season fires every four years to manage woody thickening. The Shruburn project has compared different burning frequencies (never, every 2, 4, or 6 years) and season of burning (“early dry” – June or “late dry” – October) on pastorally significant black soil and red soil sites.

Dr Dionne Walsh, Rangeland Program Coordinator for DPIF, presented results discovered from 21 years of the fire project.
Across both land types and all burning regimes, woody cover increased between 1993 and 2013. The increase was lessened significantly by late fires every two or four years. Pasture condition deteriorated with fires every two years, however. Hence, late dry season fires every four years are recommended as providing the best balance between managing thickening and looking after pastures. Dionne also spoke about practical considerations when planning a late dry season fire, in terms of spelling paddocks to ensure a high, continuous fuel load required for a successful burn and the critical importance of post-fire grazing management to prevent overgrazing of burnt areas which are favoured by stock. Analysis of fire data from the VRD shows that the most productive land types are probably not being burnt often enough to keep woody vegetation in check. However, on less productive land types and rugged country there are opportunities to reduce the extent and severity of fires to generate carbon credits. Dionne has put together a comprehensive handout on the Shruburn trial results. Please contact her if you would like a copy: Dionne.Walsh@nt.gov.au

A highlight of the day was an impromptu talk from Russell Cornall of Heytesbury Beef at the Shruburn site, outlining the company plans to implement a broad scale fire program targeted at managing woody thickening. It is a huge undertaking by the company as it effectively means setting aside a quarter of their most productive country each year either through spelling prior to or after burning. Heytesbury believe that managing woody thickening is essential in order to protect the value of their land asset and have been guided by results from the Shruburn project in designing their fire management program.

Overall it was a great day, with lively discussion and good company. A huge thanks to the sponsors; DPIF, MLA, Katherine Hotel, and Magnat Agri Services. For handouts from the day, contact Trisha Cowley (Trisha.Cowley@nt.gov.au).
Potassium nitrate for mango flowering manipulation

Marije ten Napel, Development Horticulturist, Katherine

In July, Constancio (Tony) Asis from DPIF Berrimah spent one week at KRS carrying out a potassium nitrate trial on mango leaves for the mango flowering manipulation project. Application of potassium nitrate is one of the techniques used to promote early flowering and advance fruit maturity in order to spread the harvest period. The aim of this is to improve harvest and packaging efficiencies and profitability.

The use of potassium nitrate prepares the plant for floral induction. Northern Territory growers believe that higher concentrations of potassium nitrate (3%) will be effective at promoting early fruit production, which was exactly what Tony set out to trial. An adjuvant was added in to the potassium nitrate spray in different doses to monitor its effectiveness in the bud maturation process.

With the help of the local Plant Industries team, Tony sprayed 560 mango leaves with potassium nitrate. Days and nights were then spent collecting leaf samples at 4, 8, 12, 24, 48, 96, and 144 hour intervals. After washing and drying the leaves, the nutrient contents of the leaves were measured.

Tony is currently assessing the results and hopes it gives a clear indication of the effect of time of spraying on optimal leaf uptake of nutrients, as well as the optimal dose of adjuvant needed. Stay tuned to future editions of the KRR for an update on the progress of this work.

Savitha Devi cuts out leaf disks, and Tony Asis measures chlorophyll and nitrogen content of the leaves
What impact has grazing had on soil carbon?

Dionne Walsh, Rangeland Program Manager, Berrimah Farm

Findings from the East Ranken Stocking Rate & Spelling Demonstration Site (Alexandria), 2013

- DPIF has been monitoring the pastures at three bores in East Ranken paddock every year since 2010.
- The three bores differ in age—number 10 was established in 1910, number 124 was first used in 2005, and number 153 was first used in 2010.
- We monitor the pastures at 13 distances from each bore, starting at 100 m and going out to 5 km from water.
- The paddock is 700 km², well watered, and all Mitchell grass pastures (Barkly land system).
- In July 2013 Dionne Walsh and Peter Shotton did some soil carbon sampling at the demo site. We sampled at three distances from water (100–500 m, 1400–1500 m and 3000–3500 m) and also sampled turkey nest enclosures at two of the bores to answer:
  - What soil carbon levels are typical on black soil plains in the Barkly region?
  - Do soil carbon levels change with long-term grazing duration (age of bore)?
  - Do soil carbon levels change with grazing intensity (distance from water)?
  - Are soil carbon levels significantly correlated with land condition?

Results

- Soil carbon was found to be relatively low in the productive black soils in East Ranken (typically <0.5%). These figures are very similar to unpublished data for Barkly black soils from the NT Dept. of Land Resource Management.
- When converted to carbon stock (tonnes per hectare), the figures in East Ranken were typically in the order of 4–6 tonnes per hectare in the top 10 cm and 10–15 tonnes per hectare in the top 30 cm.
- Soil carbon was highest in the top 10 cm of soil and declined with depth at all locations.
- There was no apparent relationship between soil carbon levels and age of bore.
- There was no consistent trend in soil carbon with distance from water. The highest levels were actually found at 100 m from the oldest bore, possibly due to the disturbance, accumulation of dung and/or high turnover of annual plants close to that old water. Soils from the fenced off turkey nests did not have significantly more carbon than the grazed areas, suggesting that up to 100 years of grazing has had no discernable negative impact on soil carbon levels in this paddock. If typical, these results suggest that the potential for earning soil carbon credits in the Barkly will be low.

Figure 1. Soil carbon stocks to 30 cm depth

The Climate Clever Beef project is supported until May 2015 by funding from NT DPIF and the Australian Government. Contact Dionne Walsh, Berrimah Farm, 8999 2178, or Dionne.Walsh@nt.gov.au
Remote sensing in water management

Marije ten Napel, Development Horticulturist, Katherine

The Northern Territory’s water resources are generally not considered to be under pressure due to the relatively small population base and low intensity of land use. Despite ample rainfall in the wet season, however, water is not in endless supply. The Top End relies heavily on groundwater reserves during the dry season. To support economic development and environmental sustainability for future generations we must protect the health of our rivers and groundwater reserves. Unfortunately, there is a general lack of information on water use in the NT, including on irrigation practices of NT growers.

Water allocation and verification of water use are key issues for sustainable utilization of water. To get a better insight in water use and irrigation practices of local farmers, Development Horticulturist Marije ten Napel has started an irrigation assessment. She is currently carrying out surveys among Katherine and Mataranka growers to capture their irrigation practices. Marije has a background in remote sensing and this irrigation assessment is a starting point for a new project she is developing that aims to monitor water use and productivity of irrigated agriculture using satellite imagery. Remote sensing is an ideal tool for quantifying irrigation use levels and identifying where more efficient use of water can be made.

Remote sensing data are widely used by farmers in the Netherlands, the United States and South Africa to assess crop water use and crop water requirements. Remote sensing allows for the monitoring of earth surface characteristics in a transparent and objective way. The monitoring of water management indicators contributes to better water allocation, verification of water use and sustainable utilization of scarce water resources as management practices can be adjusted accordingly by growers. Information on crop water consumption can be difficult to obtain in the field. Ground measurements are often expensive and are highly specific to location and management practices. Moreover, they do not show spatial distribution. Remote sensing techniques can save time and effort as information on large areas can be gathered quickly. Remote sensing makes it possible to gather information about inaccessible areas where it is not possible to gather information through ground surveys. Remote sensing also allows for easy repeatability over time.

To support economic development in the NT it is necessary to provide innovative agricultural entrepreneurs with clear cut information to improve the yields of their crops and to reduce their input costs. Remote sensing technology helps farmers keep a very close eye on their daily work. Information obtained by satellites is the perfect basis for improving crop production and yield, and reducing input costs such as fertilizers, diesel and electricity. Examples of remote sensing data outputs include evapotranspiration and biomass production. Other more process oriented products also can be generated, such as soil moisture or nitrogen indicators. The prospects for an AgNorth CRC are looking promising and this type of research is expected to be a strong contender for support as it introduces new technologies to the NT and has the potential for numerous applications across touted northern development regions and their respective cropping systems.

Virus confirmed in Katherine Watermelons

The department confirms Cucumber Green Mottle Mosaic Virus (CGMMV) on commercial watermelon farms in the Katherine region. CGMMV has been declared a notifiable pest under the Plant Health Act and quarantine restrictions will be implemented. This is the first known occurrence of CGMMV in Australia. It can infect watermelon, cucumber, zucchini, melon, pumpkin, squash, and others. It poses no risk to human health. CGMMV could have a highly negative effect on the $60 million Territory melon industry. Information about financial and emotional counselling available is at www.dpif.nt.gov.au/cucumbervirus

Images: B. Conde, ©NT DPIF

Senior Plant Pathologist Barry Condie inspects Katherine watermelons

Flesh yellowing observed in Katherine
Evapotranspiration maps tell us about:

- Actual evapotranspiration for each unit of land
- Reference (potential) evapotranspiration which would be achieved under pristine conditions with no water stress
- Which areas have adequate water supplies and areas that are water stressed

This information can be used to…

- Show differences between the intensity of water uses
- Estimate water requirements for a range of agro-ecosystems
- Identify areas for possible water savings and the potential volume of such savings
- Measure the incremental evapotranspiration as a result of irrigation

Biomass maps tell us about:

- Productivity of land
- Incremental production from irrigation

This information can be used to…

- Show differences in crop productivity between certain areas
- Measure a change in biomass as a result of irrigation

Combining Evapotranspiration, Biomass and Land Use tells us about:

- Value of water in agriculture
- Crop water productivity
- Potential to save water with the same production levels

Remote sensing technologies allow farmers to receive patterns of outputs and look at their own farm from the sky. It is up to the grower to interpret this data. Figure 3, for example, shows a cereal field in the Netherlands. Remote sensing output alerted this farmer that part of this field’s biomass production was lagging behind with 30%. He inspected his field and found that his cereals were affected by mildew which affected his biomass (and yield) production. If farmers can easily and quickly detect these impacts on crops then remedial actions can be actioned to mitigate losses. While this is a European example, similar applications may be possible in NT crops such as watermelons, mangoes and sandalwood, and will be the subject of a research project that Marije plans to start in 2015. For more information contact Marije ten Napel, 8973 9710, or Marije.tenNapel@nt.gov.au

Images are courtesy of WaterWatch Remote Sensing Services, the Netherlands (www.waterwatch.nl).
Important cattle diseases affecting productivity in the NT – Vibriosis

John Eccles, Regional Veterinary Officer, Katherine

Many cattle producers probably do not realise the extent of economic loss that can occur through reproductive failure in their cattle. In well-managed herds, an accepted level of reproductive wastage from early pregnancy to weaning is about 10%. Heifers and first calf cows are the groups most likely affected by reproductive diseases, as older cows have generally developed some degree of immunity through previous exposure.

Besides the three major causes of productivity loss that will be discussed, there are also many other non-infectious factors that contribute to infertility and productivity loss. In fact up to 60% of bovine abortion cases may be attributed to non-infectious causes.

This is the first in a series of three articles featuring the three most common infectious diseases found in the NT that have the ability to severely affect the productivity of the breeder herd in terms of fertility. The diseases profiled over the coming editions of the Katherine Rural Review include vibriosis, pestivirus and ephemeral fever (three-day sickness). Other diseases such as leptospirosis, trichomoniasis, neosporosis, akabane and a host of other viruses, whilst existing in the NT, generally have much less of an impact.

Campylobacter (Vibriosis)

This venereal disease is found in every region of the NT including the Barkly. It is transmitted at mating and can also be transferred during artificial insemination. The organism that causes the disease is very persistent and inhabits the reproductive tract of cows and becomes established in the prepuce, penis and semen of bulls.

Vibriosis infection causes repeated return to service associated with embryonic mortality and abortions in mid gestation as well as pyometra.

Branding rates in infected heifer groups can be 20% less units than non-infected groups. In all-year round mated herds, however, the disease is hard to detect and is often not recognised.

Signs and symptoms

There are no obvious signs in the bull.

A cow/heifer that gets infected at mating will abort due to the early death of the embryo; however, the infected uterus prevents fertilisation from recurring. About 11% of infected females can become permanently infertile and can be seen as big fat barren cows.

In herds where vibriosis is commonly found, low conception rates are most evident in the maiden heifers as they are all susceptible, having not been exposed to develop immunity.

The most common signs of vibriosis are delayed conception and occasionally aborted foetuses between three and seven months of age.

Prevention and Control

Pregnancy testing the breeding herd and incorporating a vaccination program is the most effective way to control vibriosis.

With the breeding herd a common practice is to pregnancy test only dry cows at first-round muster and cull non-pregnant animals from the herd. This procedure identifies cows that have a calving interval of more than 18–24 months, suggesting that these cows may have been infected and harbouring the vibriosis causing bacteria. Culling breeders for infertility will reduce the level of infection within the herd.

Culling both aged and infected bulls and seasonal mating can also reduce the impact of this disease. It is suggested that bulls older than eight years should be culled.
All bulls should be given primary and secondary vaccinations prior to first mating and then vaccinated annually at the final round of mustering. For the vaccination program to be successful, total bull control must be achieved.

Maiden heifers may also be vaccinated prior to mating. In the latest industry survey it was found that for the Barkly region 62 properties carried out a vaccination program—31 properties vaccinated only the bulls and 31 vaccinated the bulls and maiden heifers. This equated to 38% of maiden heifers in the Barkly region and 67% of bulls being vaccinated for vibriosis.

A bivalent vaccine is recommended and all animals should be vaccinated at least four weeks prior to joining to ensure that the vaccine has time to take effect. The vaccine costs approximately $7/shot and is available over the counter.

NOTE that vaccination programs must be done annually as animals lose their immunity.

In the next edition of the KRR, the effect of pestivirus on the productivity of the breeder herd will be examined.

If you have any questions regarding any of these diseases or others, please contact John Eccles, Regional Veterinary Officer on 08 8973 9716 or John.Eccles@nt.gov.au.

**Notifiable diseases of livestock**

A notifiable disease is an animal disease that must be immediately reported to the Chief Veterinary Officer or a Department of Primary Industry and Fisheries (DPIF) Veterinary Officer. There is a legal obligation under Northern Territory legislation for livestock owners, managers, agents and **veterinarians** to notify the department if they suspect or have positive laboratory confirmation that an animal has one of these diseases. The purpose of immediate reporting is to ensure a rapid disease control response to minimise the spread of the disease and thereby prevent or control any adverse effects on public health, the community, industry and the economy.

There is a penalty of 500 penalty units (currently $72,000) for failing to report. While the major emphasis is reporting emergency and exotic diseases, notifiable endemic disease reporting is also important. The list of notifiable diseases is available at: www.dpif.nt.gov.au/animalhealth and click on ‘Notifiable Diseases of Livestock in the NT’.

**IMPORTANT**

Immediately contact your local Senior Field Veterinary Officer (SFVO)

or

Regional Livestock Biosecurity Officer (RLBO)

if you suspect or confirm a listed emergency or exotic animal disease

1800 675 888
Chasing outstanding waybills

NT WAYBILLS – PINK COPIES
HAVE YOU SENT YOUR PINK COPIES IN TO YOUR REGIONAL LIVESTOCK BIOSECURITY OFFICER RECENTLY?

**Pink copies must be sent within 28 days after completion**

It is a mandatory requirement for cattle, buffalo, sheep, goats, camels (including camels, alpacas and llamas), deer and pig owners to complete a waybill whenever stock are moved outside the boundaries of a property.

**NT PICS – USE THE NT PIC SEARCH DATABASE -**

**National PIC Registers using your NLIS account -**
https://www.nlis.mla.com.au/ *Search the PIC register*

Please post your PINK copies asap to your Regional Livestock Biosecurity Officer.

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Second round of Farm Finance Concessional Loans Scheme

Producers in the Northern Territory are now able to access the second round of the Australian Government’s Farm Finance: Concessional Loans Scheme.

Eligible producers in the agricultural, pastoral, livestock, horticultural, aquacultural or apicultural (beekeeping) industries can submit their applications between 1 July 2014 and 30 April 2015 for the 2014–15 program.

Loans are for less than 50 percent of eligible commercial debt and this year the minimum loan amount has been reduced from $250 000 to $100 000 to enable smaller enterprises to access the scheme. The maximum loan amount remains at $1 million.

The Farm Finance Scheme in the Northern Territory will continue to be delivered by QRAA in Brisbane. QRAA is a specialist administrator of government financial assistance programs to the rural sector. All application forms are available from the NT Department of Primary Industry and Fisheries.

Advice and support regarding scheme guidelines is provided through the department’s Farm Finance Promotions Officer, David Collinson, at David.Collinson@nt.gov.au or phone 8936 4089.

Further information, including scheme guidelines and application forms, is available from the DPIF website http://www.nt.gov.au/d/Primary_Industry or email industry.programs@nt.gov.au
**Bushfires NT Update**

Bushfires NT encourages land owners to mitigate the effects of wildfires through fuel hazard reduction, effective fire planning, and being ready for action when fires do occur. A subsidy is offered annually by the Northern Territory Government for the purchase of certain pieces of fire management and firefighting equipment, including bushfire radios. The subsidy may be applied for through the Regional Bushfire Committees or the regional Bushfires NT Office.

A subsidy of up to 50% of the purchase price of the equipment, up to a maximum of $1200, may be applied for in the financial year the equipment was purchased. A tax invoice and tax declaration details must accompany the application which is endorsed by the Regional Bushfires Committees and if successful, approved by the Director of Bushfires NT.

The subsidy is very limited, so please contact your regional Bushfires NT office for a list of the approved equipment and a copy of the application and guidelines.

**Bushfires NT Regional Offices**

Katherine 8973 8870 | Batchelor 8976 0402 | Tennant Creek 8962 4522 | Alice Springs 8952 3066

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**Awards and scholarships available**

**The Australian RIRDC Rural Women’s Award**

The Award identifies and supports the capabilities of emerging women leaders who have the desire, commitment and leadership potential to make a greater contribution to primary industries and rural communities.

The Award acknowledges women’s leadership capacity in effecting change and influence through connecting and collaborating, and creates opportunities for women to drive innovation and resilience. The Award also encourages primary industries and their communities to embrace diversity in leadership to successfully navigate future challenges.

The Award supports women both financially and professionally. Each state and territory winner will receive a $10,000 financial bursary to implement their Award vision. Each winner also has the opportunity to participate in the Australian Institute of Company Directors (AICD) Company Directors Course and will be supported to develop an individual integrated leadership plan.


**The Horizon Scholarship**

In partnership with industry sponsors, RIRDC supports undergraduates studying agriculture at university by providing:

- A bursary of $5,000 per year for the duration of their degree
- Professional development workshops and mentoring
- Annual industry work placements that give students first-hand exposure to modern agricultural practices.

Scholarship recipients will be selected on the basis of their commitment to a career in agriculture, as well as their leadership potential and high school academic record.


Both of these Awards are initiatives of the Rural Industries Research Development Corporation (RIRDC).
Round the Region

Left: Attendees of the Kidman Springs Field Day taking part in the station tour. Here Whitney Dollemore, Pastoral Production Officer, shared the developments of the Selected Brahman Herd.

Right: Grant Cutler, Senior Technical Officer, presenting information about the peanut variety trial currently underway at Katherine Research Station during a bus tour at the NT Field Days.

Attendees of the Beetaloo Adaptive Grazing Pilot Field Day stop to admire the cattle in the rotational grazing program.
Live Cattle Exports via Darwin Port – AUGUST 2014

Please note that the ‘NT CATTLE’ figures are NT cattle exported through the Port of Darwin only, some NT cattle are exported through interstate ports.

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<td>TOTAL</td>
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AUGUST at a glance

- 44,768 head of cattle through the Port of Darwin during August, 8,312 less than July and 8,716 more than August last year.
- 2014 total cattle figures indicate 89,345 head more than last year. NT cattle 21,262 more than last year.

Live Cattle Exports thru the Port of Darwin (last 10 years)
### NATIONAL CATTLE PRICES - W/E 29/8/2014

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#### MEDIUM STEER

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<tr>
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<td>348</td>
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<tr>
<td>SA</td>
<td>337</td>
<td>337</td>
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<tr>
<td>AV (Aust.)</td>
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<td>350</td>
</tr>
<tr>
<td>This week</td>
<td>344</td>
<td>344</td>
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<tr>
<td>Last week</td>
<td>331</td>
<td>331</td>
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<td>Year ago</td>
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#### MEDIUM COW

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<tr>
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<th>SALEYARDS</th>
<th>O.T. HOOKS</th>
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<tr>
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<td>371</td>
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<tr>
<td>SA</td>
<td>367</td>
<td>367</td>
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<td>AV (Aust.)</td>
<td>368</td>
<td>368</td>
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<tr>
<td>This week</td>
<td>358</td>
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<tr>
<td>Year ago</td>
<td>356</td>
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#### LIVE QUOTIONS

<table>
<thead>
<tr>
<th>Light Steers (260-360 kg)</th>
<th>Light Heifers (260-360 kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Darwin</td>
<td>Darwin</td>
</tr>
<tr>
<td>Broome</td>
<td>Broome</td>
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<tr>
<td>This week</td>
<td>195</td>
</tr>
<tr>
<td>Last week</td>
<td>190</td>
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### CURRENCY EXCHANGE RATES

<table>
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<tr>
<th>Key Currencies</th>
<th>1 AUD</th>
<th>1.9.2014</th>
<th>Previous month</th>
<th>3 months ago</th>
<th>1 Year ago</th>
<th>Pre-devaluation 01.07.1997</th>
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<tbody>
<tr>
<td>Brunei Dollar</td>
<td>1.15095</td>
<td>1.15218</td>
<td>1.14411</td>
<td>1.11804</td>
<td>1.076</td>
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<tr>
<td>Indonesian Rupiah</td>
<td>10.9216</td>
<td>10.926.0</td>
<td>10.897.2</td>
<td>9.676.94</td>
<td>1830.0</td>
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<tr>
<td>Philippine Peso</td>
<td>40.5942</td>
<td>40.6853</td>
<td>40.6007</td>
<td>39.5922</td>
<td>19.84</td>
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<tr>
<td>Malaysian Ringgit</td>
<td>2.94966</td>
<td>2.97968</td>
<td>2.98918</td>
<td>2.92041</td>
<td>1.9</td>
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<td>Euro</td>
<td>0.71113</td>
<td>0.69437</td>
<td>0.68034</td>
<td>0.67272</td>
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<td>US Dollar</td>
<td>0.93380</td>
<td>0.93619</td>
<td>0.9626</td>
<td>0.88931</td>
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<td>Vietnam Dong</td>
<td>19.554.4</td>
<td>19.566.4</td>
<td>19.433.5</td>
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</table>

Prepared by the NT Department of Primary Industry and Fisheries

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# Katherine region events calendar

<table>
<thead>
<tr>
<th>Event</th>
<th>Location</th>
<th>Date</th>
<th>Contact</th>
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</thead>
<tbody>
<tr>
<td>Victoria River District Field Day</td>
<td>Delamere Station</td>
<td>28 October</td>
<td><a href="mailto:Jodie.Ward@nt.gov.au">Jodie.Ward@nt.gov.au</a></td>
</tr>
<tr>
<td>North Australia Food Futures Conference</td>
<td>Darwin</td>
<td>4-5 November</td>
<td><a href="mailto:Warren.Hunt@nt.gov.au">Warren.Hunt@nt.gov.au</a></td>
</tr>
<tr>
<td>Action on the Ground Field Day</td>
<td>Katherine Research Station</td>
<td>7 November</td>
<td><a href="mailto:Teagan.Alexander@nt.gov.au">Teagan.Alexander@nt.gov.au</a></td>
</tr>
<tr>
<td>2015 NTCA AGM and Conference</td>
<td>Katherine</td>
<td>26-27 March</td>
<td><a href="mailto:office.darwin@ntca.org.au">office.darwin@ntca.org.au</a></td>
</tr>
</tbody>
</table>

Please email us with updates of events happening in your area: Jodie.Ward@nt.gov.au

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