Minister Vatskalis took the opportunity to provide a special launch of the Agribusiness Industry Strategy to a group of interested onlookers at the Arid Zone Research Institute.

Minister Vatskalis acknowledged the document represented a lot of old fashioned hard work by a lot of people. He commented on the document’s development, including the nine months of extensive consultation, conducted across the Territory, with over forty meetings with farmers, pastoralists, and industry members.

Minister Vatskalis also acknowledged that farmers and pastoralists were central to managing the natural resources on which primary industries and the Territory economy depends.

“The success of this strategy will only come about by a strong partnership between industry and government. And it won’t be a case of government leading; the only way forward for this is government and industry side-by-side,” he said.

“The future development of the Territory faces challenges – challenges that requires carefully considered next steps. We must also be ready to embrace opportunities. But it is really important for us to get the balance right – the balance between fulfilling our economical potential and maintaining a healthy environment.”

Rod Gobbe, Executive Director of Primary Industry, also commented on the diligence of his team, in particular for the enormous amount of work maintaining the farms. (We certainly all know how much grass there is to cut!) Rod also thanked Bruce Sawyer and his crew for their determination to progress the Water Re-Use Project and in particular Martin Hildago for his committed role in working with the Desert Peoples Centre to involve Batchelor Institute students who assisted with the establishment of the windbreak.
**Bushfire Season 2011: Anticipating the Inevitable**

Grant Allan, Bushfires NT, Alice Springs ~ ☎ 8952-3066

*Anticipating the Inevitable* was the title of our first fire management strategy written for Uluru-Kata Tjuta National Park in 1984. It was conceived as a reminder for park managers that the seasonal conditions, that provided the opportunity for numerous bushfires in central Australia during the 1970s including the large fire that swept through the park in November 1976, would return and all fire managers must be prepared.

Pastoralists are aware that central Australia has received above-average rainfall over the past 15 months. The amount and regularity of the rainfall has had significant influences on our expectation that fires in central Australia are inevitable. Pasture growth has been continuous and biomass levels have increased dramatically. In addition, the regularity of the rainfall disrupted many of the active burning programs during the winter period of 2010. Fuel reduction and hazard reduction burns were minimal and fires in some pasture types, especially buffel grass areas, are recovering quickly and may not provide effective areas of persistent low fuels to help contain future fires.

Several old-timers are comparing the current conditions with the 1974-75 seasonal period. Few can argue with their experience but there are some important differences that will be in our favour. In the years preceding the 1970s fires, there was very little active fire management in central Australia. The canvas of the landscape was without patches of fire and their low fuel loads. In contrast active fire management has become a more important land management tool, especially on parks and Aboriginal land trust areas. In addition the vegetation burnt by the fires of 2001 and 2002, especially in the rugged hill areas, are still recovering and spinifex fuel loads in many of these areas are less likely to carry fires, or sustain hot fires. The road and track network has also expanded considerably over the past 35 years and the capacity to maintain this network has also improved, so there should be better access to more country to help suppress or contain fires. On the downside, the number of people living and working on pastoral properties has decreased considerably, so our new challenge is that fewer people will be available, especially those with previous fire experience.

A sample of the upcoming fire season was experienced around Alice Springs at the end of January 2011. The preceding week of hot weather with daily temperatures exceeding 40°C rapidly cured the pasture and at least 14 fires were started by lightning on the night of 27 January. Several other fires, that were either accidentally or intentionally lit, added to the number of fires. Several of the fires, especially those in the hills and mulga areas north of Alice Springs, were restricted by adjacent areas of green pastures. In contrast, the fires in the open spinifex areas south of Alice Springs burned much larger areas. Variations in fuel loads did influence the patterns of these fires, but it was containment actions and finally rainfall that stopped the fire spread.
These lightning-ignited fires highlight that the current pasture conditions have both the density and the continuity to be ignited by lightning. In normal years lightning is less likely to start fires. The strikes have a higher probability to hit bare ground or if fires are started the discontinuous fuel loads restrict the fire extent to small areas. Therefore land managers must be prepared to react quickly to the possibility that fires will be started by passing lightning storms. Check the NAFI website regularly for hotspots indicating where fires might have started.

The outlook for the months ahead is uncertain. The heat of the summer has nearly passed and the potential for hot weather to rapidly cure the vegetation is diminishing. But it is worthwhile remembering that several large and challenging fires occurred to the north of Alice Springs in April 2001. Regardless, the landscape will not dry out evenly and this creates opportunities to burn some areas with less risk of fires carrying into adjacent areas. Areas of spinifex may be burnt when adjacent pasture is still too green to burn. This approach will help create areas of low fuel that can be part of your design of fire containment blocks. It is important to realize that fire management is time-consuming, but don’t delay making a start. It is better to start your burning program too early than to wait too long for the grass to cure too much and struggle to control your fires.

Bushfires NT is preparing an information package for pastoralists with fire management information and contact details for our staff in Alice Springs and Tennant Creek.

**Bushfires NT's Recommended Actions**

- **Develop a fire strategy for your property.**
  The strategy should identify your assets, including your priority pastures and paddocks, fire containment options, and areas where prescribed fire can be used to reduce fire risk and manage pasture. The process should review the landscape patterns of fuel types and fuel loads, other features that will affect fire spread and the network of roads, tracks and fencelines that provide opportunity for access and management. Although most pastoralists have a mental version of their fire strategy it is valuable to have a written version. This will enable Bushfires NT staff to help provide advice and support, build a better regional perspective that encourages all land managers to ensure their programs and activities are complimentary and that the community can collectively prepare for the upcoming fire season.

- **Ensure all your equipment required for fire response is serviced, tested and ready.**
  This includes grass fire units, water tanks and trailers and also heavy equipment such as graders and dozers. Contact Bushfires NT for help with hoses and fittings and information on the equipment subsidy scheme.

- **Review all your management priorities and include fire preparation activities.**
  Your program of management priorities will help ensure that you can implement a program to clear tracks and fences that establish links and defined areas for fire containment. Don’t leave gaps that are difficult to manage and create areas for fire containment to fail. Contact your neighbours to create shared containment blocks where landscape features can restrict access.

- **Plan a program of active fire management.**
  Prescribed burns can help break up the continuity of the fuel loads and compliment the network of roads and tracks. Burning linear strips along cleared lines can add extra security to your containment plans. Bushfires NT is encouraging the use of fire and will offer support and assistance within our capacity. Prescribed burns are being planned and scheduled by both Parks staff and CLC staff to help manage fuel loads on national parks and Aboriginal Land Trusts. We also anticipate that not all fires will go to plan. Some fires may escape and burn more extensive areas than planned and may require suppression. Please be tolerant with all prescribed burns during the upcoming winter period. The intentions are well considered and ultimately the impact of fires during the cooler winter period will be considerably less than hot fires during the hot windy months after August.

- **Expect fires to be started along roadsides.**
  One of our biggest management challenges are the ribbons of buffel grass along the main roads. When the grass in these areas cure and fires start, they will extend into the adjacent pastures. Regardless of the reason for these fires it will be necessary to be prepared. Identify the roads and tracks in your area that have the highest potential for ignitions and take positive action to reduce the risk.

- **Create a NAFI favorite on your computer.**
  The NAFI (North Australia Fire Information) website [www.firenorth.org.au](http://www.firenorth.org.au) is a valuable source of fire information and it is useful to familiarize yourself with its pages and operation before the fire season starts. The website provides ‘hotspot’ information on the location of active fires and their patterns relative to topographic maps and other features, such as recent fires. A brief guide to its important features, benefits and limitations is being prepared. Contact Bushfires NT for further help and information.

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**Check your Fuelbreaks!**

For protocols: Page 13
SOIL CONSERVATION & MACHINERY WORKSHOP

Sally Sims, Research and Demonstration Farms, Sustainable Plant Industries, Alice Springs

A four day Machinery Licence and Soil Conservation workshop was held at Orange Creek Station and was supported by Natalie Turner (CLMA), Col Stanton (NRETAS) and Trevor Zimmell (ATC Ltd South Australia).

Nine participants attended the workshop from various parts of the Territory including four from the Department of Resources in Alice Springs.

The course involved the operations of a dozer, grader, skid steer loader and a front end loader. A day was spent on each machine doing soil erosion work under the watchful eye of soil conservation officer Col Stanton. Col (while sitting under a shady tree or pacing the field), guided and advised the participants in building banks, grading roads, ripping erosion areas or pushing up dirt using the various machinery. Participants not only learnt how to operate the machines, but learnt a lot about repairing soil problem areas.

Front left: Terrance Hill, Col Stanton, Bryan Gill, Glen Oliver, Trevor Zimmell, and Sally Sims. Back left: Nat Turner, Shane Braitling, Doug Sims, Toby McMillian, Doug Stark Absent from picture: Nathan Sims

The training modules consisted of land care and soil erosion repair work, machinery maintenance and operations as well as OH&S. Training officer Trevor Zimmell assessed the nine operators over the four days of training on each of the machinery and yes we all passed with flying colours.

For more information on future machinery training courses contact Natalie Turner at: emu@clma.com.au

Welcome to Glenn Ronan, the department’s new Principal Economist, located at AZRI in Alice Springs...

Glenn has 40 years experience as a rural scientist and agricultural economist in primary industries and economic development. For Glenn, his new position is a welcome return to NT primary industries after a forty year break – he worked as a ‘casual’ with DPI’s agronomy team in the top-end in 70-71!

Glenn’s first permanent position was with Victorian Department of Agriculture as a beef cattle officer at Hamilton Pastoral Research Station. After post-graduate studies in agricultural economics, he was a District Economist in Gippsland for several years before joining the economics and marketing team in SA’s Department of Agriculture. He was involved in the BTEC disease eradication program in the far-north of SA in the early 1980s, assessing the financial capacity of cattle stations to cope with the disease eradication program. Adjustment coordination work with farm families in financial difficulty in the early nineties crisis was a defining experience, culminating in a book, A positive approach to farm adjustment.

After a couple of years with SA’s regional development team in the Economic Development Authority, Glenn returned to primary industries to focus on agri-food public policy challenges: rural adjustment scheme review; dairy deregulation; chicken meat industry legislation, and pig industry crisis inquiries. In 2008-09, Glenn was project analyst in an Adelaide Thinkers in Residence program, Food and wine value chains: prosperity through collaboration. In 2010, DPI Victoria invited Glenn to return to his community of origin at Tallangatta in north-east Victoria, to address farm families at an AgFutures Forum, fifty years after he started at the local high school!

Glenn is enjoying settling in at AZRI.
PUT YOUR HAND UP IF YOU LIKE WASTING MONEY!

The importance of hygiene and correct implantation techniques in HGP use

Trisha Cowley, Pastoral Production, Katherine

I bet that no-one put their hand up just then, but I hope that I caught your attention! This is the second article in a three part series looking at hormone growth promotant (HGP) use in northern Australia. Here we will look at correct implantation methods and the implications of poor hygiene and technique.

A single dose of 400 day Compudose costs around $8. If this is implanted incorrectly or poor hygiene is used, not only will it be a waste of $8, but you will have also lost the additional 10kg it could have supplied - which is potentially $17 per beast. (NB – 10kg is a conservative estimate but based on CSIRO research in HGPs in northern Australia). This is an opportunity cost of $25. Below are some tips to correct implantation procedures which can help ensure you don’t waste money!

Figure 1: Correct placement of HGPs

NB: This site ensures adequate blood flow over the implant for efficient absorption

Implanting technique:

- Insert the HGP in the middle third of the back of the ear (see Figure 1 below). This is important to allow adequate blood flow across the implant that is required for efficient hormone absorption.
- While holding the point of the ear, slide the needle under the skin towards the base of the ear, being careful to remain above the cartilage.
- Withdraw the gun to allow room for the implant to be inserted while squeezing the trigger — this is particularly important for compressed pellet HGPs as it prevents crushing of the pellets which negatively effects the hormone release.
- Ensure you leave at least 1cm of skin between the HGP and the wound entry.
- Pinch the injection site closed and check a HGP has been inserted. These last two points are important to help prevent HGPs falling out.
- While a correct insertion technique is important for a functional implant, good hygiene techniques are extremely important to ensure the implant remains in place. An infection at the implant site can lead to an abscess and then expelling of the HGP. Alternatively, it could lead to scarring which impacts blood flow to the implant and so effects absorption.

Local research has found a significant difference between stations in HGP retention rates which confirms the importance of correct implantation techniques. The NT Liveweight Gain Project funded by MLA has been noting hygiene during implantation and then recording infection and HGP loss 2 weeks later. Table 1 below shows loss rates for two stations in the NT. While it is difficult to say what has led to the large differences between these 2 properties, we do know that Property B dipped the applicator into an antiseptic solution between each animal, while Property A did not.

If this is indicative of HGP loss and infection rates across the entire property, Property A stands to lose a significant amount of income due to poor technique. It is likely that the infected implants will fall out (we will know the true loss rate when we sample the steers again after the wet) so 35% of implants will be ineffective. If Property A implants 1000 steers a year they stand to lose close to $6000 in weight gain (350 steers x 10kg of additional weight x $1.70/kg = $5950) with a total opportunity cost of $8750. Good hygiene practices are easy and they are worth it!

<table>
<thead>
<tr>
<th>Status of HGP</th>
<th>Property A</th>
<th>Property B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>Percent</td>
<td>Number</td>
</tr>
<tr>
<td>Good</td>
<td>145</td>
<td>112</td>
</tr>
<tr>
<td>Infected</td>
<td>61</td>
<td>2</td>
</tr>
<tr>
<td>Fallen out</td>
<td>18</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>224</td>
<td>117</td>
</tr>
</tbody>
</table>

Table 1: HGP infection and loss at 2 weeks after implantation on two NT properties
Good hygiene involves the following:

- ensure the needle is sharp (rough edges catch and spread dirt and animal matter)
- disinfect the needle of the applicator in between each animal (simply dip into a hibitane solution)
- regularly clean the applicator with an antiseptic solution
- take great care not to drop HPGs onto the ground, touch etc – these all add dirt contamination which greatly increases the likelihood of infection and loss
- if HPGs are dropped, rinse them thoroughly in a strong antiseptic solution before implanting (implanting a new HGP isn’t cost effective as the HGP will cost $16 for a $17 weight gain)
- Keep the crush area as clean as possible to minimise the risk of dirt contamination during implantation

Katherine Pastoral Production offers the free Stock Course for stockcamps and includes hands on training in correct HGP application techniques. To register interest or to get more information on the NT Liveweight Gain Project or HGP use in general, contact Trisha Cowley on 8973 9770 or email trisha.cowley@nt.gov.au.

HGP Legal Requirements

There are legal requirements related to the use of HPGs. Producers must:

- Complete and keep a copy of signed declaration at point of sale
- Use only on property listed on declaration
- Identify implanted animals with triangle ear notches in offside ear
- Keep records of HGP use including batch number and wastage.
- Keep records of treated stock purchased and sold.

PASTORAL INDUSTRY SURVEY 2011

Sally Leigo, Pastoral Production, Alice Springs

Over the summer of 2004-2005, the department undertook a Pastoral Industry Survey across the whole of the Territory. The results from the survey reports provided positive and valuable feedback on research and extension projects and offered guidance as to what future projects the industry would like to see the department undertake.

These reports have also been useful to the Northern Territory Cattlemen’s Association (NTCA) in its strategic planning and is also used by consultants, investors and suppliers to the pastoral industry.

In 2011, six years later, the department, together with industry, have once again prepared another survey to be conducted with all Territory producers in the coming months. The information gathered through the 2004 survey generated essential information which has been widely used as an industry benchmarking and planning tool. The survey questions relate to topics relevant to managing a pastoral enterprise including: ownership and management; property and improvements; reproduction and herd management; grazing management; animal health; natural resources; and extension of information.

Now we need to update that information to compare it with previous data to determine current needs and to gauge how the industry has changed over the past six years. A letter is being mailed out to all pastoral properties from Pastoral Production Director, Scott Wauchop, advising of the upcoming survey. After the mail out, pastoralist’s will be contacted by a member of the department’s Alice Springs survey team (Sally Leigo, Bryan Gill, Doug Sims, Chris Materne, Pieter Conradie and Coral Allan) to arrange a time suitable to conduct the survey with them.

All survey results will remain confidential and will not be accessed by the public. If you have not seen a copy of the previous report and would like to know more about the type of information this survey generates, please see the following link http://www.nt.gov.au/d/publications/index.cfm?fj=Pastoral%20Industry%20Survey

If you have any further questions relating to the pastoral industry survey please do not hesitate to call Sally Leigo, 08 8951 8144 or email: sally.leigo@nt.gov.au

Click to Win!

Well it’s a different sort of ‘click’ - not on your computer, we’re looking for photos of your hefty bovines - grazing, standing, lying, sleeping, mooing (oh, not poohing) - in our luscious central Australian landscape! Have you got a photo that best describes cattle production in Alice Springs for 2010? Perhaps you’ll have the photo to grace the cover of the 2010 Pastoral Industry Survey report. Finalists will be published in the ASRR and the winning picture will be the cover photo for the report!

Please, photos must be high quality digital images. Email them to sally.leigo@nt.gov.au
Property Identification Code (PIC)

Does your rural block / property have Livestock? Is your property registered with a PIC?

The owner of an identifiable property must have a PIC registered for that property. An identifiable property is a property that keeps any of the following livestock - Alpacas, buffalo, camels, cattle, crocodiles, deer, goats, honey bees, horses, llamas, pigs (including wild pigs), poultry, sheep.

The PIC is permanently registered to a specific parcel of land as described by the Lands Title Office, not to the owner of land. Upon sale of the property the PIC remains with the property, it cannot be transferred to another property.

The PIC is required to be used for most livestock movement and identification documents such as NT waybills. The PIC is also required for the National Livestock Identification System (NLIS). The property name and PIC are provided to the NLIS national database.

PIC registration is free of charge – please complete PIC Registration form www.nt.gov.au/d/nlis or contact your Regional Livestock Biosecurity Officer (RLBO) for assistance.

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NT Waybills – Reminder to complete Waybills accurately

Waybills MUST be CORRECTLY filled in by completing ALL sections and boxes, ensuring you print clearly.

Please remember that both the Origin and Destination details must be correct, just writing a town or place such as Darwin or KNX and leaving the PIC out, is not acceptable.

<table>
<thead>
<tr>
<th>Origin</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Property or Place of Origin:</td>
<td>Property or Place of Destination:</td>
</tr>
</tbody>
</table>


For interstate Properties/Places you may need to contact the DPI within that state.

NOTE: Post PINK copies within 28 days to Regional Livestock Biosecurity Officer

<table>
<thead>
<tr>
<th>Darwin Region</th>
<th>Katherine Region</th>
<th>Tennant Creek Region</th>
<th>Alice Springs Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ian Doddrell (RLBO)</td>
<td>Greg Scott (RLBO)</td>
<td>Ted Martin (RLBO)</td>
<td>Greg Crawford (RLBO)</td>
</tr>
<tr>
<td>Ph: 08 8999 2030</td>
<td>Ph: 08 8973 9754</td>
<td>Ph: 08 8962 4490</td>
<td>Ph: 08 8951 8124</td>
</tr>
<tr>
<td>Fax: 08 8999 2146</td>
<td>Fax: 08 8973 9759</td>
<td>Fax: 08 8962 4480</td>
<td>Fax: 08 8951 8123</td>
</tr>
</tbody>
</table>

www.nt.gov.au
**AussieGRASS – March 2011 Update**

Chris Materne, Pastoral Production, Alice Springs

**Rain, rain and more rain!**

AussieGRASS is a spatial modelling framework that estimates various pasture characteristics (such as growth and total standing dry matter) over a given time period and compares it with historical records. It does this by using rainfall, climate, soil and pasture type information to estimate average pasture growth (among other parameters) over 5km x 5km square grids across Australia. Seasonal benchmarking tools such as this are potentially valuable in assisting pastoralists make informed land management decisions.


**Past**

**Pasture Growth Relative to Historical Records since 1957**

Figure 1 indicates how good the 2010-11 season has been across the entire NT. Looking back to this time last year (figure 2) shows the Barkly and far North-eastern Alice Springs regions had already experienced above average to extremely high growth, but as we now know this was only the beginning of one of the best pasture growing years on record across the southern NT.
Figure 3 - Total standing dry matter (TSDM) is estimated by incorporating pasture carried over from the previous season (less grazing, fire and detachment) and the current season’s growth. The majority of the NT is now showing over 2000kg/ha. Some areas in the southern VRD are even indicating over 10,000kg/ha; while areas on the Tanami over 8,000 kg/ha and numerous areas across the Alice Springs district topping 5000kg/ha. With fire only requiring approximately 1700kg/ha to carry, this highlights the potential situation we will be in once this fuel curers.

Figure 4 and 5 represents the chance of exceeding median pasture growth over the coming three month period based on the SOI index. This model is predicting a moderate to extremely good chance of exceeding median pasture growth over the next three months across the majority of the NT south of Tennant Creek but including the Barkly. North of this the prediction is extremely low. Areas around Alice Springs are starting to show a low chance of exceeding median growth for the first time this year. Low growth in these areas however may not necessarily be due to reduced rainfall but may potentially be from a depletion of nitrogen reserves following the exceptional year being experienced in the district.

PERSONALISED PROPERTY MAPS

Are you interested in obtaining detailed AussieGRASS maps for your property?
If so get in touch with Chris Materne DoR Alice Springs (89518135) chris.materne@nt.gov.au.
Scale maps are available on line at: http://www.longpaddock.qld.gov.au/RainfallAndPastureGrowth/
The PEG Project – More to the Story

Sally Leigo, Pastoral Production, Alice Springs

Readers may remember the previous two articles about this research project undertaken by the department; this followed from a request by ASPIAC into the use of PEG. The first article outlined what was involved in the pen trial and the second presented some of the results. In this third article, additional data will be provided plus recommendations and conclusions from the research project. A final report has been submitted to MLA for publishing and will be available in future on MLA’s website…(http://www.mla.com.au/Publications-tools-and-events).

The results presented in the last article related to the performance of the heifers during the pen trial as measured by liveweight gain, dry matter intake and dry matter digestibility. From these findings it was concluded that supplementing heifers with PEG while they are grazing a diet dominated by mulga did not improve performance.

The results to be presented in this article may provide some clues as to why there was no improvement in the heifers’ performance over the eight weeks.

Nitrogen and phosphorus excretion

Faecal samples were taken from each of the heifers on a daily basis and analysed for nitrogen and phosphorus content. This test allowed us to find that the PEG heifers absorbed more nitrogen (the building block for amino acids which make up protein) than the control heifers. This is shown in Table 3, which illustrates less nitrogen was excreted by the PEG heifers than the control heifers. This was the only example of PEG supplementation having an effect.

<table>
<thead>
<tr>
<th>Faecal Content</th>
<th>Control</th>
<th>PEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>%Nitrogen</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>1.38 (0.118)</td>
<td>1.10 (0.082)</td>
</tr>
<tr>
<td>Week 8</td>
<td>1.33 (0.089)</td>
<td>0.98 (0.122)</td>
</tr>
<tr>
<td>Mean</td>
<td>1.36 (0.060)</td>
<td>1.04 (0.073)</td>
</tr>
<tr>
<td>%Phosphorus</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>0.18 (0.029)</td>
<td>0.18 (0.029)</td>
</tr>
<tr>
<td>Week 8</td>
<td>0.19 (0.032)</td>
<td>0.21 (0.044)</td>
</tr>
<tr>
<td>Mean</td>
<td>0.18 (0.018)</td>
<td>0.19 (0.023)</td>
</tr>
</tbody>
</table>

Diet quality

The diet that was provided to the heifers in the pen trial worked out be made up of 79% mulga and 21% hay. The nutrient quality of the diet is presented in table 1.

<table>
<thead>
<tr>
<th></th>
<th>ME (MJ/Kg DM)</th>
<th>CP%</th>
<th>P%</th>
<th>S%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hay</td>
<td>8.35 (±0.194)a</td>
<td>4.86 (±0.729)a</td>
<td>0.033 (±0.0152)a</td>
<td>0.303 (±0.0192)a</td>
</tr>
<tr>
<td>Mulga</td>
<td>7.61 (±0.194)b</td>
<td>18.2 (±0.729)b</td>
<td>0.071 (±0.0152)a</td>
<td>0.081 (±0.0192)b</td>
</tr>
</tbody>
</table>

The energy content for this diet was close to a maintenance level, while the crude protein level was high for the mulga and very low in the hay, the diet was deficient in phosphorus and sulphur. The tannin levels (total 5.8%), as shown in table 2, were within the range recorded in previous research, 3.1 – 9.6%DM.

Table 2 - Mean tannin content (DM basis) of mulga offered and refused (±SEM) over the eight week period of the pen trial.

<table>
<thead>
<tr>
<th></th>
<th>Free Tannin %</th>
<th>Bound Tannin %</th>
<th>Total Tannin %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mulga</td>
<td>5.39 (±0.406)</td>
<td>0.431 (±0.067)</td>
<td>5.82 (±0.418)</td>
</tr>
</tbody>
</table>
Current research recommends that PEG is supplemented at a ratio of 1:1 (PEG:Tannin). This research project was able to deliver the PEG close to this recommended ratio at 0.95:1.

Previous research on supplementation of beef cattle with PEG used additional ingredients in the rations including grain, molasses, urea, phosphorus and sulphur. These research studies have found improvements in dry matter intake and grazing behaviour.

Conclusions and recommendations

In conclusion, the pen trial studies found that PEG supplementation did not improve the performance of cattle on a mulga diet.

The lack of improvement in heifer performance from PEG supplementation may have been due to the low energy, sulphur and phosphorus content of the diet in this study. It is hypothesised that other nutrients are required in addition to PEG to give a benefit. If the PEG heifers in this trial were also fed an energy supplement such as molasses then better performance could be expected. However this would come at an additional cost for the producer. PEG supplementation is very expensive as PEG costs approximately $7.20/kg (delivered in Alice Springs) and the costs of other nutrients supplemented would be additional to this.

It is recommended that for beef production from mulga, PEG alone is not a cost effective supplement.

Thank You!

Further to a request from ASPIAC, this research project was funded by Meat and Livestock Australia and the Department of Resources. The success of this project could not have been achieved without the hard work of staff at AZRI and the men from the Alice Springs Correctional Centre as well as the guidance from Professor Dennis Poppi, University of Queensland. Thank you to all for your help and support.

We're looking for the Territory's Best Ringer.

We'll be crowning the Best Male Ringer and Best Female Ringer in June.

Each winner will receive a brand new swag.

Anyone who is associated with the NT cattle industry is eligible to enter. For example, a station worker, truckie, stock agent, hay contractor, researcher.

You can nominate yourself or nominate someone you know.

FOR MORE INFORMATION CLICK HERE: Territory's Best Ringer
HAVE YOU CLEARED YOUR FUELBREAKS?

Coral Allan, Pastoral Production, Alice Springs

Fuelbreaks are natural or manmade changes in fuel characteristics which affects fire behaviour so that fires burning into them can be more readily controlled. On most pastoral properties fuelbreaks are access tracks and fence lines. Although they may stop a fire under mild conditions if all vegetation has been removed, fuelbreaks are essential when lighting a backburn as a control, or containment, line for a bushfire.

Fuelbreaks should also be established around assets and are required in other areas of a large property. They should link together in a network that creates strategic fire containment blocks.

Fuelbreaks should be:
• a minimum of 4m wide and graded, or slashed to a maximum height of 50mm with all slashed material removed.

P.S. The term “firebreak” is no longer supported as an appropriate term; Australia’s only firebreak is its coastline!

Don’t forget to follow the protocols of the Bushfires Act when you burn.

Remember …
1. at least 48 hours notice must be given to all neighbours
2. the fire should be lit only when weather conditions are favourable
3. adequate staff and equipment must be on hand at all times to control the fire, and
4. if you are within the Alice Springs Fire Protection Zone (which extends in a 50km radius from the Alice Springs airport) you must have a permit to burn and notify the control tower (89507505) or control office (89507518)
Plant Profile:  
NATIVE OAT-GRASS  
*Enneapogon avenaceus*

*Coral Allan, Pastoral Production Alice Springs*

**Plant description**

Native Oat grass may act as an annual or a short lived perennial grass. It can grow to a height of 30cm forming small open tufts with hairy, silver woolly-looking bases. The leaves are up to 12cm long and are also hairy with long hairs at the stem joints. The seed head is loose and open with straw coloured seeds. A characteristic of *Enneapogon* species is that the florets (grass flower) have 9 awns. In the case of Native Oat grass these awns are 6-12mm long and feathery giving the seeds a fluffy appearance.

**Grazing value**

- Good nutritional value and palatability through all growth stages.
- Provides a large bulk of feed when pastures are in good condition.
- Valuable fattening pasture.
- Can be eliminated from the pasture if overgrazed during the short period when seed is being set.

**Habitat**

- Found in a range of vegetation and soil types including sandy soils, calcareous soils and on stony ridges.

**Notes**

- Regenerates rapidly during warmer rainfall months.
- Often dominates pasture during favourable seasons.

**Information source**

Milson, J. (2000). *Pasture Plants of North-west Qld*. QDPI.
BUFFALO FLY IN CENTRAL AUSTRALIA

Jocelyn Coventry, Pastoral Production, Alice Springs

Buffalo fly (*Haematobia irritans exigua*)—a blood-sucking external parasite of grazing livestock—has been positively identified south of Alice Springs. Its spread from the tropical and sub-tropical areas of Australia is believed to have been enabled by the ongoing rainfall events over central Australia, particularly in the past 12 months. This has probably also been exacerbated by the transit of Top End cattle through central Australia to southern markets, following enforcement of weight restrictions for live export to Indonesia.


Figure 1. Cattle at AZRI with buffalo flies swarming over the back (arrow). These cattle are to be managed with a combination of insecticidal ear tags and fly traps.

Buffalo flies breed well under warm, moist conditions and lay their eggs in cattle and buffalo dung. In hot, humid conditions these intensely annoying flies can complete a lifecycle in less than two weeks. They are obligate parasites because they need a ‘blood feed’ 10 to 40 times per day, and they tend to swarm over the back where it is difficult for the cattle’s tail, ears, feet or nose to dislodge these insects (see Figure 1).

In north Australia, the estimated cost of buffalo flies (treatment costs, reduced beef production, increased hide damage) has been estimated at over $150 million per annum (1998 figures). However, Meat & Livestock Australia research suggests that it is probably not cost effective to treat cattle with less than 200 buffalo flies per animal: http://www.mla.com.au/files/d0cf05bc-694a-49a8-8573-9d8e00d47abd/na.pdf

Spread of buffalo flies into the Alice Springs district is believed to have last occurred during the high-rainfall years in 2000-01. These flies disappeared with the winter frosts and subsequent dry seasonal conditions.

For any enquires about identification of suspect buffalo flies on cattle in the Alice Springs district, contact:

Extension Officer: Bryan Gill ph 08 89518127
Animal Biosecurity Officer: Greg Crawford ph 08 89518125
**Pastoral Market Update**

Live Cattle Exports via Darwin Port – JANUARY 2011

---

**TOTAL CATTLE** (including interstate)

<table>
<thead>
<tr>
<th>Destination</th>
<th>2009</th>
<th>2010</th>
<th>Last year 31/1/10</th>
<th>YTD 31/1/11</th>
<th>I-31 Jan</th>
<th>Previous Month</th>
<th>2009</th>
<th>2010</th>
<th>Last year 31/1/10</th>
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**NT CATTLE**

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<td>15,623</td>
<td>+11,374</td>
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January at a glance

- 26,697 head of cattle through the Port of Darwin during January, 11,374 more than December and 3,403 more than January last year.
- 2011 total cattle figures indicate 3,403 head more than last year. NT cattle 6,418 more than last year.

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**Graphs**

- **TOTAL Live Cattle Exports thru Port of Darwin 2010 v 2011**
  - Yearly exports chart showing a comparison between 2010 and 2011.

- **NT Live Cattle Exports thru Port of Darwin 2010 v 2011**
  - A chart showing the export figures specifically for NT cattle in 2010 vs 2011.

---

ALICE SPRINGS RURAL REVIEW, Page 15
OTHER LIVESTOCK EXPORTS VIA DARWIN PORT (includes NT and Interstate Stock)

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<th>Destination</th>
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NATIONAL CATTLE PRICES - W/E 28/1/2011

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LIVE EXPORT QUOTES

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CURRENCY EXCHANGE RATES

Prepared by the NT Department of Resources

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ALICE SPRINGS RURAL REVIEW, Page 16
Northern Territory Bull Selection & Herd Improvement

WORKSHOP

15th & 16th April 2011
TENNANT CREEK SHOWGROUNDS, TENNANT CREEK

WORKSHOP commencing 10am Friday 15th April

• Nutrition – Nutrition’s role in increasing productivity and herd health in Northern Australia
• Markets – Knowing your target markets and achieving increased returns from your operation
• Breed Selection – Breed characteristics and suitability to the Northern Australian environment
• Veterinary Science – Increasing herd fertility by identifying non performing bulls
• Bull Selection – Understanding and identifying traits to improve your profitability

KEYNOTE Speakers include:

• Peter Atkinson BVSc. (President Reproductive Vets Association of Aust.)
• Dean Allen (QLD/NT Buyer for International Livestock Export P/L)
• Jock McPherson (Partner & Director Territory Rural McPherson)
• Tony Newman B.APP.Sc/RT
• Neil Donaldson (CEO Droughtmaster Australia)
• Brett Nobbs (Principle NCC Brahman Stud)

REGISTRATIONS/ENQUIRIES: 07 4748 4942  ntbullsale@hotmail.com

85 BULLS
10am SATURDAY
16th APRIL