

Pastoral MEMO

© State of Western Australia, 2007.



Northern Pastoral Region

PO Box 19, Kununurra WA 6743

Phone: (08) 9166 4019

E-mail: mfletcher@agric.wa.gov.au

September 2007

ISSN 1033-5757

Vol. 28, No. 3

CONTENTS

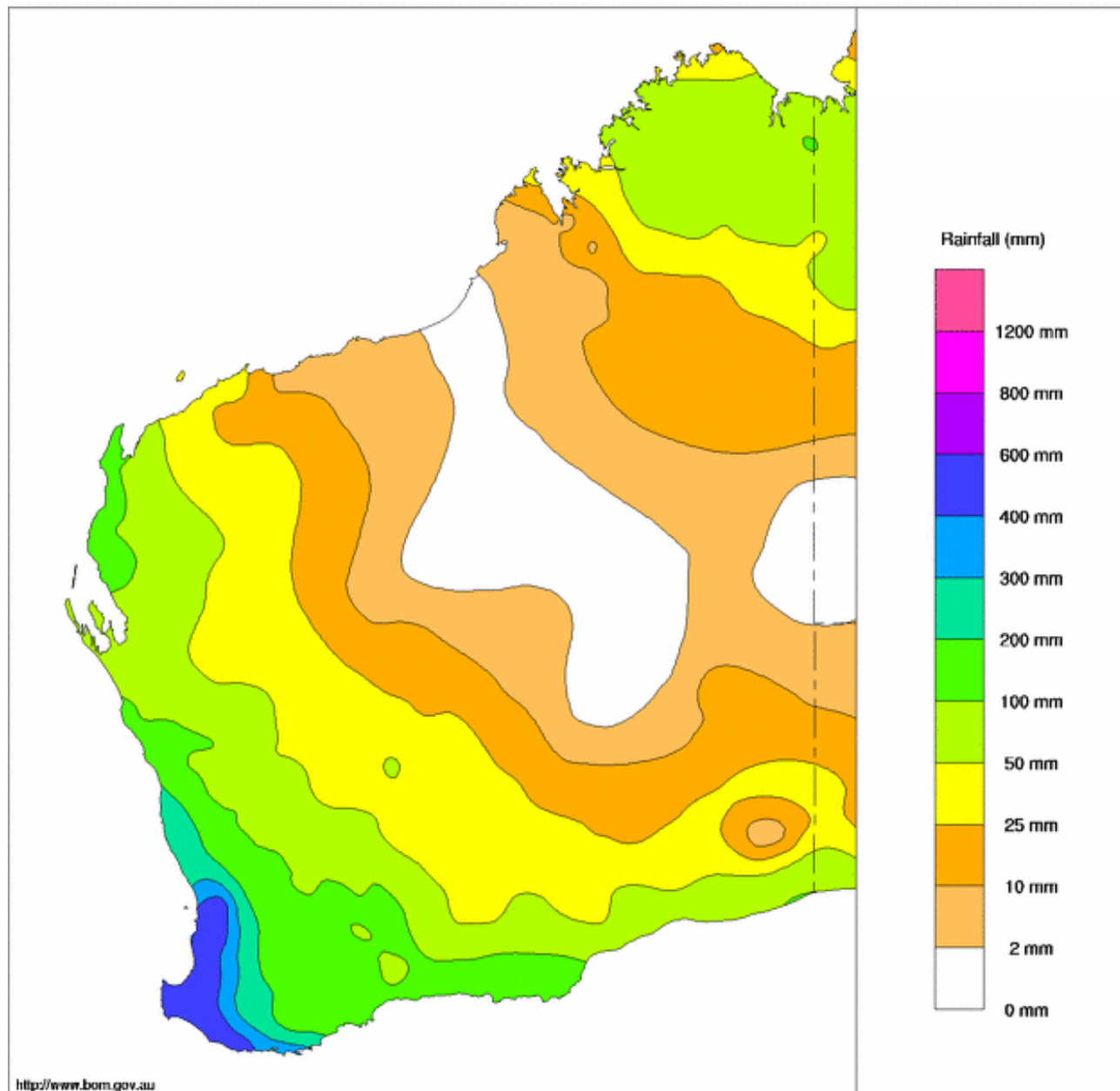
Where has the rain been falling?	2
Welcome from the Editor	3
Pilbara round-up	4
Public meeting of North Kimberley LCDC to be held at Drysdale River Station	4
Kimberley Wild Dog Management Plan	5
Pigeon Hole field day	6
Mesquite control in the Rangelands of WA	8
Summary of donkey control in the West Kimberley	9
Ever wondered why an animal has died? Summary of post-mortem procedures and sampling	10
Requirements for cattle being supplied for use at rodeos	12
New Rangelands Manager	13
Road trip	13
Regionally-based Community Landcare Facilitators are here!	14
Local erosion DVD in the mail	15
EcoFire – hope amongst a blaze of glory!?	16
Profitability and sustainability of Indigenous owned pastoral businesses – Part II	18
Bush nurse	20
Kununurra Quarantine Checkpoint news	21
<i>Western Weeds - A guide to weeds of Western Australia</i> (Second edition)	22
Cattle market update	23
Northern Rangelands Calendar	25
Northern Rangelands Pastoral Memo available on-line	24
Department of Agriculture and Food Kimberley/Pilbara contacts	25

EDITOR: Matthew Fletcher

Visit <http://www.agric.wa.gov.au>

WHERE HAS THE RAIN BEEN FALLING?

Western Australian Rainfall (mm) 1 June to 31 August 2007
Product of the National Climate Centre



<http://www.bom.gov.au>

© Commonwealth of Australia 2007, Australian Bureau of Meteorology

Issued: 31/08/2007

Please check the address label on your publication. If it is incorrect or if you would like to be included on our mailing list, let us know!

Disclaimer

This material has been written for Western Australian conditions. Its availability does not imply suitability to other areas, and any interpretation or use is the responsibility of the user. Mention of product or trade names does not imply recommendation, and any omissions are unintentional. Recommendations were current at the time of preparation of the original publication.

WELCOME FROM THE EDITOR

Hello Northern Rangelanders

I am glad you could take the time out to read the *Northern Rangelands Pastoral Memo*. The September Memo has been put together in one of the busiest times of the year and I would like to thank those who have contributed articles.

In August I was fortunate enough to be part of a group of pastoralists and DAFWA officers who travelled to Pigeon Hole station in the Victoria River District, Northern Territory, to take part in a **Grazing Strategies for Tomorrow** field day. It was great to see such a large representation of pastoralists, especially those hardy types from the Pilbara who made their way over from the west by aircraft to participate in the field day.

An invitation goes out to all who would like to participate in the **Halls Creek-East Kimberley Land Conservation District Road Show** happening in late October. The road trip will start in Kununurra and make its way down to Halls Creek and back along the Duncan Road, visiting various stations and businesses along the way. It is planned that the Road Trip will take about four days and people will be able to join and leave the trip as it suits them. Further details are in the Memo.

So far in 2007 we have reported on the Judas donkey program in the East Kimberley and Halls Creek areas. This issue of the Memo will report on the West Kimberley. Mick Everett has put together a summary of the progress of the Judas donkey program in his district. I find it staggering to think about the huge numbers of donkeys culled during the program and the benefit this must be having on the land across the Kimberley and Pilbara.

Happy reading

Matthew Fletcher



PILBARA ROUND-UP

By Manus Stockdale. Karratha

Rainfall since the beginning of June has been below average (averages Port Hedland 315 mm, Newman 310 mm and Warrawagine 376 mm) across most of the Pilbara region. Some isolated areas of the west Pilbara received good falls in July which provided some relief following the poor wet season.

Most pastoralists have either completed or are currently right into their breeder mustering. Sale prices in the south continue to be disappointing particularly for females. The number of cattle sold for live exports through Port Hedland this financial year is already up on 2006/07 figures. There was one ship in June which loaded 882 cattle. Three ships loaded a total of 7908 cattle in July.

The Pilbara Department of Agriculture and Food staff have been busy with their projects around the region.

- We welcome Margaret Reid as our new admin person. Margaret will often be your first point of contact with the Karratha office and is new to the Department 'system'. Please be patient while she gets up to speed on what it is all about. Vickie, complete with Kiwi accent, has moved on and we wish her well.
- The pastoralist advisory committee for the Young Breeder Project met to provide feedback on the current activities of the project and future direction prior to the project's review by MLA conducted in August.
- Soil sampling to get an idea of levels of carbon is being carried out in the west Pilbara. The rangelands have been identified as a possible 'carbon sink' and there may be the potential in the future to trade this stored carbon.
- A pregnancy testing school was conducted during July at Peedamulla as part of the Pilbara Indigenous Management Service project.
- The biosecurity team is gearing up for dog baiting with bait production planned to begin in late August. **Pilbara pastoralist volunteers welcome!!**
- The new staff members involved in Pastoral Lease Inspection are receiving training from experienced staff from other regions. They have completed several lease inspections in the Pilbara and Kimberley familiarising themselves with the process and gaining valuable knowledge.

PUBLIC MEETING OF NORTH KIMBERLEY LCDC TO BE HELD AT DRYSDALE RIVER STATION

The meeting will begin at 7.30 a.m. on 19 September 2007. Election of office bearers will take place, followed by normal business. Please RSVP by Wednesday 12 September for catering purposes. Anyone wishing to attend and planing to arrive on the 18th will need to contact Drysdale River Station.

Regards
Anne Koeyers, Chairwoman

E-mail: drysdaleriver@bigpond.com Phone: (08) 9161 4326 Fax: (08) 9161 4084

KIMBERLEY WILD DOG MANAGEMENT PLAN

By Noel Wilson, Kununurra

The Kimberley Zone Control Authority endorsed the Kimberley Wild Dog Management Plan at the last meeting. The plan sets out roles and responsibilities and minimum standards for wild dog management in the Kimberley. This plan should be read in conjunction with the Western Australian Wild Dog Management Strategy.

The aim of this management plan is to ensure that wild dogs do not become a major problem in the Kimberley pastoral region and that their impact upon the cattle industry is minimised.

While the degree of risk of wild dogs to the cattle industry varies, effective control will significantly reduce the risk of attacks on cattle. A more sustained reduction can be achieved when wild dog control work is coordinated with neighbours.

All industry groups should:

- Promote the availability and conditions of use of wild dog control methods.
- Promote the need for, and assist with, formation or operation of landholder groups for coordinated control.

All land managers should:

- Use wild dog management techniques that are effective, safe, humane as possible and appropriate in limiting the damage caused by wild dogs to livestock.
- Conduct control programs using the most appropriate and effective methods available for the particular situation.
- Participate in the annual coordinated spring baiting program carried out in the Kimberley.
- Assist in the laying of baits and maintain a record of areas baited and areas of current wild dog activity.
- Notify neighbours and erect warning signs around baited areas.
- Monitor the effectiveness of control techniques.

Requirements

- Maintain a low population of wild dogs on pastoral leases.
- Landholder will need to apply for baits/oats for each year advising how many and where baits will be distributed. A risk assessment is conducted of the property to ensure minimum risk to non target animals.
- Landholders need to be trained in the safe use of 1080 poison. (Undertaken by Department of Agriculture and Food Biosecurity staff.)
- Coordinated aerial baiting will be carried out in September using 1080 baits. The ZCA will supply a suitable aircraft, pilot and bombardier. Station airstrips will generally be utilised. Station staff will accompany the pilot and navigate for the flight.
- Ad hoc/as required 1080 fresh meat baiting will be carried out when required.
- Shooting of wild dogs will be carried out whilst on feral donkey eradication tracking runs.

Minimum standards

- Adequate wild dog control needs to be carried out by landholders at least every two years. If baiting is not carried out in one year, there needs to be follow-up to ensure that the property is baited in the following year.
- Aerial baiting maps to be used to determine if aerial baiting has occurred on a property.
- Buffer areas need to have adequate baiting carried out as decided by local biosecurity officer.
- The minimum bait lay for aerial programs is 1000 baits per hour (one bait per 130 metres continuous lay). Total minimum number of baits per property to be determined by local biosecurity officer.

Please forward any comment on this plan to:

Noel Wilson
Department of Agriculture and Food
PO Box 19
Kununurra WA 6743
E-mail: nwilson@agric.wa.gov.au



PIGEON HOLE FIELD DAY

By Manus Stockdale, Karratha

A group of pastoralists and DAFWA staff from the Pilbara attended the Grazing Strategies for Tomorrow field day at Pigeon Hole Station in the Northern Territory in early August. Pigeon Hole is owned by Heytesbury Beef and is situated in the Victoria River District (VRD) of the NT, some 350 km south of Katherine. The five-year Pigeon Hole project began in 2003 as part of MLA's Partners in Innovation Program. In addition to Heytesbury and MLA, the project was also supported by other organisations including DPIFM Northern Territory, CSIRO, The University of Queensland, DNREA Northern Territory and the Victoria River District Conservation Association.

The aim of the Pigeon Hole Project was to determine the effects of increasing pasture utilisation and stocking rate on animal performance, economic viability and environmental sustainability. Information presented during the day indicated that in the VRD the average station uses less than 12.5% of pasture grown in any given year. This low utilisation is largely attributable to the low level of infrastructure (fences and waters) and animal grazing habits. There were three major investigations at the Pigeon Hole site: grazing systems; pasture utilisation; and grazing distribution. While the VRD environment is different from much of the Pilbara and Kimberley the Pigeon Hole research offers some valuable insights into intensifying grazing systems.

The grazing systems part of the project looked at three different grazing strategies: cell grazing; wet season spelling; and set stocking at different pasture utilisation rates. The aim of the project was to look at the effect of these grazing systems in terms of animal production, practical management and environmental sustainability. The three grazing management systems were set up in a 68.5 km² area of the research site. The cell grazing site was set up with 25 cells averaging 1.3 km² each. The wet

season spelling treatment consisted of three 5 km² paddocks of which two were rested for half the summer growing season and the third for the whole of the growing season each year. The set stocking trial was carried out in a 21 km² paddock with one central water point.

From a practical management point of view, cell grazing presented a number of problems in day-to-day running mainly due to the availability of appropriately skilled staff. At the Pigeon Hole site it was concluded that cell grazing was too intensive to be practically or economically viable. It was pointed out that at different locations with different environment and management, cell grazing may well be successful.

The environmental sustainability of the three grazing systems was assessed by setting up monitoring sites in each of the treatments and sampling them for biodiversity twice a year. Wet season spelling appeared to be the most beneficial to biodiversity and there was no measurable increase or decline of pasture under the cell grazing treatment.

The pasture utilisation work investigated the effect of increasing utilisation of annual pasture growth (or summer growing season pasture growth) on animal production, land condition and biodiversity. The trial investigated five pasture utilisation rates ranging from 15 to 40%. Each of the utilisation paddocks was 20 km². The optimal utilisation rate was found to be 20%. At utilisation rates above 20% it was observed that live weight gain and weaning rate dropped off and time between pregnancies or inter-calving interval increased. A utilisation rate of 20% worked out to approximately 20 adult equivalents (AE)/km². To achieve 20% utilisation of pasture growth, an appropriate number of water points need to be in place to enable even grazing distribution.

The grazing distribution part of the project used GPS collars on breeders to record the time individual animals spent grazing in different locations. The purpose of this work was to determine the optimum paddock size to achieve even grazing and how water point spacing influences grazing behaviour. The trial utilised three paddocks of different sizes: 9 km² with one central water point; 34 km² with two water points about 4 km apart; and a 57 km² paddock with five water points about 3.5 km apart.

The conclusions of the grazing distribution work included: smaller paddocks resulted in more even grazing distribution; spacing water points 4–5 km apart maximised grazing use of the landscape; and paddock sizes of 30–40 km² was a good compromise between even grazing distribution and the cost of infrastructure at the stocking rates used at Pigeon Hole. Achieving even grazing distribution is a difficult task but one that may have benefits to both animal production and economic returns.

There were several general conclusions from the Pigeon Hole trial:

- Grazing management systems that are suited to the environment and situation of an enterprise, which include some form of spelling, have the potential to increase pasture utilisation and animal production.
- Increasing pasture utilisation to around 20% though increased stocking rate can be achieved without reducing animal performance or damaging the environment.



- Reducing paddock sizes to 30–40 km² and spacing watering points 4–5 km apart, will improve the distribution of grazing and lead to greater pasture utilisation.
- Increasing utilisation and the intensity of the system can reduce flexibility to manage seasonal variability.



The Pigeon Hole research site has produced interesting results that will have many practical implications for the north Australian cattle industry. The project is finishing at the end of 2007 with the final report to be published in 2008. It is difficult to cover all the excellent work that has been completed at Pigeon Hole in a single article. Please visit the DPIFM website for a copy of the field day hand book which includes some preliminary results.

http://www.nt.gov.au/dpifm/Content/File/Pigeon_Hole_Handbook_2007_screen.pdf

The Pilbara group wish to extend their congratulations to the field day organising team on presenting a very professional and informative day and to thank the management and staff at Pigeon Hole, NT DPIFM staff and refreshment sponsors the Hoochery and Elders for their hospitality.

MESQUITE CONTROL IN THE RANGELANDS OF WA

By Linda Anderson, Project Officer, PMMC, Karratha

Mesquite is a noxious weed that is infesting pastoral lands across the Rangelands region of Western Australia. Whilst the most widely known mesquite infestation is located on Mardie Station in the Pilbara (some 30,000 ha of dense mesquite with a further 120,000 ha infested in varying densities), there are a number of other pastoral leases and town commons throughout the northern region with smaller populations of mesquite.

The Pilbara Mesquite Management Committee, in partnership with the Rangelands NRM Coordinating Group (RCG), has recently developed and funded a 12-month project to instigate active mesquite control programs across all infestations, with the complete removal of strategic small populations. We are awaiting the imminent arrival of contractors in the Pilbara to begin what will be the first of two periods of chemical control programs. In cases where infestations are small and require little work to be eradicated, funds will be provided to individual lessees to cover the costs of diesel and chemical to treat mesquite.

This project was first developed for funding under the Defeating the Weeds Menace program in 2005, but was unsuccessful on that occasion. Despite being submitted under several programs since then, the project remained unfunded until the RCG recently came on board and partially funded the project. Hopefully the lengthy delay between project development and implementation has not diminished the enthusiasm initially displayed by stakeholders. Time will tell if this project structure is effective at providing a coordinated response to beat this nasty weedy menace.

For further project information please contact Linda Anderson on (08) 9144 1844 or pmmcinc@bigpond.net.au. Look forward to updates over the coming year in the *Pastoral Memo!*

SUMMARY OF DONKEY CONTROL IN THE WEST KIMBERLEY

By Mick Everett, Biosecurity Officer, Derby

Below is a summary table of donkey numbers controlled in the West Kimberley. This table only shows pastoral leases that have been or are still included in the 'Judas' eradication program.

Column 'A' shows the numbers of donkeys culled by the then Agriculture Protection Board and Department of Agriculture since aerial shooting commenced in 1978 and ceased in 1997.

The table does not include numbers of donkeys culled by station staff, pet meat shooters or recreational shooters.

Column 'B' shows the additional numbers of donkeys that have been culled since 1997 using the 'Judas' technique.

The '**Commenced**' column relates to when the 'Judas' technique was first employed on this property.

The '**Completed**' column is the date that eradication of donkeys was considered achieved.

Station	Commenced	Completed	A	B
Anna Plains	Mar-98	May-03	2,091	293
Brooking Springs	Aug-94	Nov-01	5,167	211
Charnley River	Mar-03	Continuing	9,578	1,081
Defence Reserve	Mar-03	Continuing	36,569	1,263
Fossil Downs	Jun-97	Aug-02	17,141	611
Frazier Downs	Mar-98	Dec-02	754	208
Gibb River	Aug-00	Continuing	7,540	2,349
Kunmunya	Oct-96	Dec-02	20,166	1,120
Leopold Downs	Jul-96	Monitoring	20,021	947
Liveringa	Aug-00	Dec-04	1,175	401
Louisa	Oct-99	Aug-02	1,423	647
Luluigui	Oct-95	May-03	2,375	818
Millijidee	Nov-97	Aug-00	181	22
Mornington	Nov-00	Monitoring	9,966	1,650
Mowla Bluff	Nov-95	Monitoring	0	455
Mt Anderson	Nov-95	Monitoring	1,122	2,354
Mt Barnett	Apr-01	Continuing	3,942	961
Mt Elizabeth	Aug-00	Continuing	716	1,845
Mt Hart	Jul-98	Continuing	28,081	3,166
Mt House	May-99	Continuing	29,156	3,336
Mt Piere	Sep-94	Jun-00	1,971	455
Napier Downs	Jul-96	Monitoring	18,885	672
Noonkanbah	Nov-97	Aug-00	435	39
Pantijan	Sep-01	Monitoring	7,368	244
Yeeda	Nov-95	May-03	0	372

TOTALS

225,823	25,520
---------	--------

EVER WONDERED WHY AN ANIMAL HAS DIED?

SUMMARY OF POST-MORTEM PROCEDURES AND SAMPLING

Mathew Bullard, Broome

Have you ever wondered why an animal has died and been frustrated by not knowing what to do without calling a vet, who may be so far away that by the time he/she arrives, the carcass is too rotten to be of any use? (That doesn't take long in our warmer climates.)

You or anybody can perform a basic post-mortem to make observations and take tissue samples for analysis.

This article summarises a very simple procedure to perform a basic post-mortem.

A more comprehensive procedure is outlined in the BOSS (Bovine Syndromic Surveillance System) program for those with Internet access.

Remember safety is of prime importance during a post-mortem and is summarised at the end of this article.

If you find a dead animal and providing decomposition is not too evident, all you need is a sharp knife and a container to put your samples into.

Procedure

- Identifying the animal(s) involved. Earmarks, brands, and ear tag particulars should be recorded, together with a description of the animal (age, breed, sex, colour, etc.).
- Observe and note body position, condition and any discharge from any orifice.
- Lie animal on left side.
- Open and fold back front and hind legs with skin incision from chin to anus, starting between the front leg and the body, cutting forward to the chin, then back into the groin, reflecting the skin off the body upwards to the backline, first cutting beneath the front leg to fold it back then through the inside of the hind leg to the hip joint and again folding up and open.
- Open abdominal cavity by cutting through the abdominal wall behind the last rib and removing the whole of that side of the abdominal wall to create a 'window'. Use the belly of the blade to avoid puncturing abdominal organs beneath.
- Open chest cavity by cutting ribs top and bottom to remove the whole rib cage. I use a set of heavy duty pruning shears but a knife can be used, simply by cutting between each rib before bending each back and up to break off at the top. An axe is not recommended from a safety point of view! Beware of sharp ends of bone.
- Observe and photograph (a camera is very useful) all organs in situ, e.g. size, colour, adhesions, etc. before taking specimens and samples. A picture is worth a thousand words!
- Practise a post-mortem before you **need** to do one. When doing a killer, observe what is normal by way of colour, size and texture of body organs and general condition.

Sampling

Start at head and work back in order as shown. Avoid cutting intestines and fore-stomachs until last or necessary.

- Eye x 1 (If looking for signs of toxicology. Keep fresh, in fridge or freezer, not in formalin.)
- Lymph node from the head/neck region, e.g. below jaw.

- Lung, minimum of two pieces from both sides of chest.
- Lymph node from between lungs at top of chest cavity in the mediastinum, a thin sheet separating both sides of the chest.
- Heart muscle.
- Liver x 2, including edge of liver.
- Kidneys x 2 (both), full thickness slice like a slice of bread.
- Lymph node x 2 along small intestines.
- Intestines x 4-6 slices along full length of small intestines.
- Collect contents of small intestines into yellow top jar for parasites.
- Intestines x 2 slices along large intestines.
- Contents large intestines in yellow top jar.
- Abomasum (true stomach) wall (look for worms).
- Sections of wall of all three other fore-stomachs, (rumen, reticulum and omasum).
- Spleen (hidden beneath fore-stomachs and behind the diaphragm, you'll have to dig for it).
- Muscle tissue from anywhere.
- Testicle/uterus if present.

AND ANYTHING ELSE THAT LOOKS ABNORMAL OR TAKES YOUR FANCY!

Size of samples need be no bigger than 1 cm thick and, if of abnormal tissue, should include some adjacent normal tissue.

Place samples in a clean container and transfer into formalin as soon as possible.

Most commonly, 10% formalin is the solution used to preserve animal tissue samples. Since 10% formalin solution cannot generally penetrate tissues to a depth of more than 1 cm, specimens placed in formalin should not be more than 1 cm thick. Beware: formalin is toxic! Toxic by inhalation, contact with skin and if swallowed. The danger of very serious irreversible effects exist through inhalation, contact with skin or if swallowed causing burns and generalised sensitisation by any direct contact.

You may wish to post-mortem a sick or dying animal before death to ensure specimen quality. The primary consideration when destroying an animal is that it is carried out safely, humanely and quickly.

General rules

Be careful. Wear protective gear. Gloves (at least) are required. Overalls, goggles and even facemasks may be required in some cases.

For example, Bovine tuberculosis is transmissible to man, so suspect samples should be treated appropriately. If in doubt, contact your local Department of Agriculture and Food veterinary officer or stock inspector before beginning the post-mortem. Don't put yourself (or others) at risk in order to collect samples.

Be conscious of the fact that as well as knives, axes, needles and scalpel blades, broken ribs and other bones are sharp and dangerous.

Conclusion

The collection of tissue samples is a great aid in the identification of causes of disease and death when carried out systematically, carefully and safely.

As stated above, the BOSSS program is a very comprehensive tool for monitoring and helping to identify cases of cattle death and diseases and is available to all pastoralists in the Northern Rangeland. Further information on access to BOSSS is available by contacting the author at the Broome Office of DAFWA on (08) 9194 1400.

REQUIREMENTS FOR CATTLE BEING SUPPLIED FOR USE AT RODEOS

By Kristie Parker, Stock Inspector, Derby

As of 1 July 2005, movement requirements changed for cattle used for rodeos and campdrafts.

Pastoralists donating cattle for use at rodeos and campdrafts are now required to comply with the following:

- All cattle **must** be earmarked and/or branded.
- Cattle **must** also have either a transaction ear tag or electronic device fitted.
- A waybill including the PIC of the property of residence and the PIC of the rodeo grounds **must** accompany cattle to and from the event.

Rodeo ground PIC numbers of the West Kimberley:

Kununurra – **WKSG 0014**
 Halls Creek – **WBSG 0042**
 Fitzroy – **WJSG 0004**
 Derby – **WDSG 0003**
 Broome – **WFSG 0015**
 Pannawonica – **WKSG 0006**
 Onslow – **WJSG 0012**

* **Please note:** If the cattle are not returning to the property they came from, an electronic device **must** be fitted prior to movement off the property. The movement **must** be transferred on the NLIS database by whoever receives the cattle after the event.

If assistance is required with the reading of the devices and/or transferral of cattle on the NLIS Database please contact the Department of Agriculture and Food, Derby - phone (08) 9191 0333.

Failure to comply with the cattle and buffalo NLIS requirements under the Enzootic Disease Regulations 1979, can result in fines of up to \$5000 for each offence.

Please find a copy of NLIS Factsheet No.13 *Campdrafts, Rodeos, Sporting Events and Agricultural Shows* attached

Any further questions please contact your local stock Inspector.

Andrew Longbottom Karratha (08) 9143 7000	Maree Glasby Broome (08) 9194 1400	Kristie Parker Derby (08) 9191 0333	Chad Richards Halls Creek (08) 9168 6179	Dave Muirson Kununurra (08) 9166 4000
--	---	--	---	--

NEW RANGELANDS MANAGER

Chris Chilcott has been appointed as the new Department of Agriculture and Food Rangelands Manager and commenced in the role on 23 July.

Chris has recently worked with the Queensland Department of Primary Industries and Fisheries as Science Leader of the Sustainable Grazing Systems Unit.

He jointly led the development of the Grazing Land Management Education Program, along with leading a number of multi-disciplinary research projects in grazing management, native vegetation management, simulation modelling and effective extension techniques.

Chris has a Bachelor of Science degree from Murdoch University and a PhD in rangeland ecology from the University of New England, New South Wales. His PhD research was on the impacts of clearing and reforestation on pastoral production and soil ecological processes.



Chris Chilcott will be based at South Perth and can be contacted on (08) 9368 3107.



Halls Creek - East Kimberley Land Conservation District Committee

ROAD TRIP

The Halls Creek-East Kimberley Local Conservation District Committee is planning a Road Trip through the East Kimberley in the week 23–26 October, to look at what local pastoralists and businesses are doing on their lease to improve rangeland condition.

The Road Trip will start in Kununurra and make its way out to Legune, down to Halls Creek and back along the Duncan Road, staying at various stations and businesses along the way. It is planned that the Road Trip will take about four days.

Some of what we'll be seeing includes levy and erosion banks to mitigate flooding and reduce erosion, revegetation of various sites, wet season spelling of land and irrigated fodder and crop production.

People will be able to join and leave the trip as it suits them. Look for the full details in your mail box soon.

Further information can be gained by phoning Dick Pasfield on (08) 9169 2222 or e-mailing dick@olw.com.

REGIONALLY-BASED COMMUNITY LANDCARE FACILITATORS ARE HERE!

Courtesy of National Landcare Program (NLP) funding, provided through the Rangelands NRM Coordinating Group (RCG), two locally-based Community Landcare Facilitators have been employed in the Kimberley and Pilbara to assist you with developing and funding NRM projects!

Corrin Everitt, Community Landcare Facilitator (Kimberley)

Brolga's Environment is a new Environmental Organisation to the East Kimberley. Brolga's consists of Anna Price, Ruth Duncan and myself. We have a suite of skills ranging from hydrology to eco-system assessments. Brolga's is involved in many projects around the region and are very proud to be the representatives for Landcare in the Kimberley.

My role with Brolgas is to spend half of my time working as the Landcare Facilitator for the Kimberley. I am excited at the prospect of working with pastoralists to develop their ideas and management strategies for natural resource management and increasing the awareness of funding availability in the Kimberley. I look forward to travelling around the region to listen to your ideas and plans for the future.

Details

Based at: Brolga's Environment, 114B Coolibah Drive, Kununurra
Phone: (08) 9169 3961
Mobile: 0400 693 807
E-mail: corrin@brolgasenvironment.com.au
Post: PO Box 1315, Kununurra WA 6743



Linda Anderson, Community Landcare Facilitator (Pilbara)

Some may recognise me as the Project Officer for the Pilbara Mesquite Management Committee, where I have spent the past 3½ years researching the ecology and integrated control tools for this nasty prickly bush. Over the next 12 months I will still be working on mesquite projects with the PMMC, but will combine this with the part-time Community Landcare Facilitator position in the Pilbara. In this new role, I am hoping to assist individual pastoralists and community groups in developing, funding, reporting on and acquitting outstanding and new natural resource management projects.

I am looking forward to extending my knowledge of issues being fought in the Pilbara, and am hoping to do some extensive travelling around our beautiful region to assist with project development to protect, rehabilitate and enhance the natural resources we rely on. Feel free to get in touch if you would like to discuss any potential projects you may have, and I will keep everyone updated of available funding as it arises!



Details

Based at: DAFWA, 12 Hedland Place, Karratha
Phone: (08) 9144 1844
Fax: (08) 9185 3380
Mobile: 0407 139 302
E-mail: pmmcinc@bigpond.net.au
Post: PO Box 867, Karratha WA 6714

What we can do for you

As Community Landcare Facilitators, Corrin and Linda will be directly involved in working with the RCG, LCDCs, Zone Control Authorities, individual pastoralists and community groups in their respective subregions to increase awareness, engagement and adoption of best practice natural resource management and Landcare activities. They are available to assist with the development of on-ground Landcare-based projects, including providing support and guidance with applying for funding to achieve project outcomes. They will also act as primary links between individuals and community groups and the State and Federal Governments, to increase the exchange of information and opinions between the two groups.

Please contact Corrin and Linda with any questions you may have.

LOCAL EROSION DVD IN THE MAIL

By the time you receive this Memo, those of you in the West Kimberley and Pilbara will also be finding a DVD in your mailbox.

Put together by the Victoria River District Conservation Association, Ord Land and Water and the Halls Creek-East Kimberley LCDC, the DVD looks at some of the machinery used to control erosion through revegetation. The DVD has already been distributed in the Victoria River and East Kimberley regions, but the suggestion was made to send it further afield as it may be of interest elsewhere.

Funding for the DVD, one of a series, was received through the National Landcare Program and the National Action Plan for Salinity and Water Quality. Further information can be gained by phoning Dick Pasfield on 9169 2222 or e-mailing dick@olw.com.au



Darryl Hill from Soil Save in Katherine, explaining the workings of a crocodile plough, one of the implements featured in the DVD.

EcoFIRE - HOPE AMONGST A BLAZE OF GLORY!?

By John Silver, Rangelands NRM Co-ordinating Group

Fire is no stranger to the Kimberley (and other Rangelands areas), but there is an ever-increasing concern relating to the intensity and frequency of unmanaged fires and the impact on sustainable productivity, biodiversity conservation, soil health, habitat protection, air pollution, carbon emissions ... even the perception of the Kimberley as an untouched frontier wilderness area (vs. a monoculture of fire-hungry wattles).

EcoFire is a NHT-funded pilot project aimed at reducing the frequency and severity of mid – late dry season fires in the central Kimberley. The aim of the project is to encourage early dry season, low intensity fires to develop strategic firebreaks and stop large uncontrolled wildfires.

The project has concentrated its 2007 activities in a demonstration site located on both sides of the Gibb River Road. This site was chosen due to its high biodiversity values, and differing land tenures and land uses.

A proactive, coordinated and enthusiastic response from land managers has ensured a planned approach to fire management so that when fires do start, appropriate control measures have been, or can be put in place.

EcoFire has provided the resources to allow a planned, aerial prescribed burning program involving the 10 properties within the demonstration area. About 606,000 ha or 22% of the 2,820,000 ha demonstration area was burnt with a good network of firebreaks established. A number of bushfires have already been extinguished by the breaks this dry season.

The Rangelands NRM Coordinating Group Inc. (RCG) developed the project in conjunction with a Kimberley-based steering committee. The contract for managing the project was awarded to the Australian Wildlife Conservancy (Mornington Wildlife Sanctuary). For a number of years Mornington has been advocating planning and prescribed burning with neighbours on fire related issues.

Project Manager, Sarah Legge said the 2007 burn was extremely successful with all participants being very supportive and positive and all want to be involved in future operations. "The demonstration area has never been better prepared for bushfires. Pastoral and Indigenous property and areas of the Crown estate managed by the Department of Environment and Conservation were all involved with the exercise."



Fires lit from incendiary balls on Gibb River Station and Mt House Station.



In planning for the 2008 season, the Kimberley-based EcoFire steering committee will work with the Australian Wildlife Conservancy to analyse the effectiveness of the firebreaks by comparing the effect of the dry season bushfires within, and external to the demonstration area.

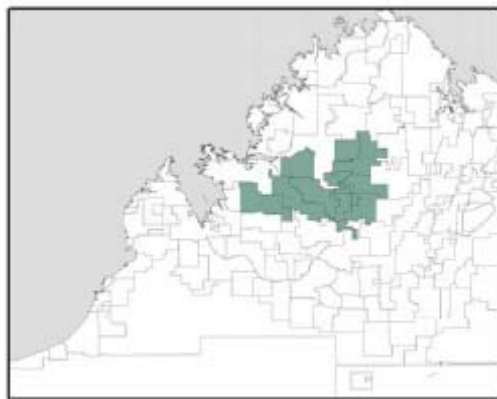
A high degree of flexibility ensured optimum results in terms of the success of the burns, and also allowed the network of firebreak lines to grow in a way that continually built on previous work.

The project hopes to demonstrate to the wider community the ecological and economic benefits of managing low intensity prescribed burns in conjunction with strategic firebreaks.

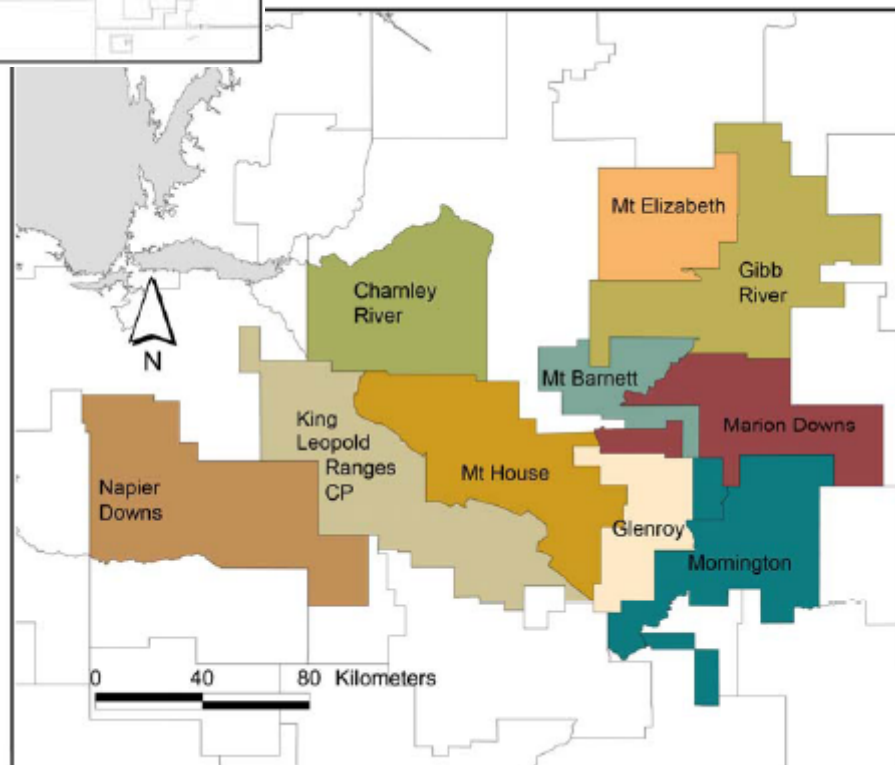
For more information contact Sarah Legge at Mornington on (08) 9191 4619; or John Silver on (08) 9191 0351 at DAFWA, Derby.



Aerial control burning from R44.



Ecofire Project: The demonstration area for this project is shown in the inset to the left. The 10 properties involved in the project are shown in the expanded map below.



PROFITABILITY AND SUSTAINABILITY OF INDIGENOUS OWNED PASTORAL BUSINESSES - PART II

By Nadene Baldwin and Bob McConachy, KIMSS Coordinators, Kununurra

We are currently profiling in the *Pastoral Memo*, properties which are currently supported through the Kimberley Indigenous Management Support Service (KIMSS).

KIMSS is a project funded by Indigenous Land Corporation and Department of Agriculture and Food WA, whose principal objective is to service Indigenous pastoral leaseholders in order to increase profitability and sustainability of their pastoral businesses.

In this edition we are profiling Billiluna and Lake Gregory pastoral stations.

Billiluna and Lake Gregory are managed effectively as one unit, under the managership of Tjuburalan Pastoral Company (TPC). TPC effectively operates the cattle enterprise on both stations, on behalf of the shareholders which have representatives from Mindibungu (Billiluna) and Mulan (Lake Gregory) Aboriginal Corporations.

The size of the Billiluna and Lake Gregory leases are approximately 163,000 hectares and 272,000 hectares respectively.

When inducted into the KIMSS project, the Tjuburalan Pastoral Company was largely in debt, cattle management on the properties was limited, and the majority of infrastructure on the property was not operational.

In the past three years, there have been a number of improvements to the running of the pastoral business on both properties. These include:

- Increase in cattle numbers. Billiluna and Lake Gregory run 3900 and 6700 cattle units respectively. Due to a successful muster on the properties in 2006, the majority of cattle on the properties are now branded and ear-tagged.



Cattle in Lake Stretch yards.

- Repairs and maintenance to station infrastructure, including construction of three new yards and 10 km of holding paddocks.
- Tjuburalan Pastoral Company meet regularly (monthly) and have annual AGMs and satisfy legal obligations as required by the Australian Securities and Investment Commission.
- Regular land management activities conducted including participation in the aerial control burning and feral dog baiting programs.
- A property business plan for both properties is in the process of being developed.
- Regular training courses conducted, including governance and animal husbandry.
- Continued discussions with Indigenous Protected Areas to develop initiatives for tourism and Lake Gregory ecosystem protection.

There is still significant work required for Tjuburalan Pastoral Company over the coming years. However, with steady improvements and continuation of activities such as those described above, the community are on the road to becoming more empowered and in control of their future and their properties.

Other properties within the KIMSS project include Lamboo, Gibb River and Noonkanbah and Millijiddee stations. Several other properties, including Bow River, Mt. Barnett, Tablelands, Mowanjum and Mowla Bluff stations and Violet Valley Aboriginal Reserve, are also being serviced.

For further information on the KIMSS project, please contact any of the KIMSS project coordinators based in Kununurra, Derby or Broome.



Cattle mustering on Lake Gregory Station.

BUSH NURSE

By Joy Motter, Bulka Station

Good mental health is important to a person's general well being. At times we are all prone to periods of stress, anxiety, loneliness and sadness. Most people can deal with these mental and emotional feelings.

However, for some people' these feelings may lead to depression' though nobody really knows the causes of depression. Some risk factors are those mentioned above. Others are a family history of depression and some medical conditions. People with depression are known to have lower levels of certain chemicals in the brain.

Observable signs of depression are:

- feelings of sadness and worthlessness;
- loss of interest in self, other people and social activities;
- loss of energy with either too much sleep or too little sleep;
- sometimes alcohol and drug overuse to 'kill' the pain and anguish; and
- suicidal thoughts.

Bipolar mood disorder

This problem includes depression as above and a manic phase in which people experience symptoms of extreme elation and over-activity as opposed to depression.

Observable signs are:

- reduced need for sleep;
- exhibit irritability at the apparent slowness of other people;
- have times of recklessness and feel invincible;
- have grandiose plans and beliefs; and
- mood swings of highs and lows.

This disorder can be managed (so too depression) with medication and counselling with a professional mental health worker.

Do not be afraid to talk with this sufferer about his/her feelings. Suggest that medical help be sought and if trust is there, you might go with this person to a doctor as first port of call. Those diagnosed (and undiagnosed) with these disorders need non-judgmental support and interest from their family and friends. For supporters there is information available through medical circles and over the Internet.

Doctor: Did you take my advice about your sleeplessness and count before nodding off to sleep?

Patient: Yes Doctor. I got as far as 24,524 and then it was time to get up.

KUNUNURRA QUARANTINE CHECKPOINT NEWS

By Kim Pollock, Kununurra

The success of quarantine in the State could not be achieved without the dedication of quarantine inspectors. Often they work under trying conditions, especially at road checkpoints where some travellers may be displeased about giving up food items. But as more people learn the importance of quarantine restrictions, the general public is becoming more supportive.

This is also being seen with commercial operators who are appreciative of the development of new processes which minimise inconvenience to them without compromising risk assessment procedures. A slight inconvenience is a small price to pay compared to the colossal cost which would be needed to control the outbreak of a new pest or disease.

To support any border or post-border Biosecurity direction, there needs to be a regulatory framework that allows non-compliance to be dealt with. Over recent years, there has been a focus on the development of the Biosecurity and Agriculture Management Bill (BAMB), an amalgamation of 17 Acts, which is planned to pass through Parliament in 2007. Reforms concentrate on ensuring appropriate powers are available, and penalties associated with non-compliance are deterrents. With the implementation of BAMB comes a need for processes to be developed to ensure non-compliance is dealt with in accordance with the judicial system. The Compliance and Investigations project will be focusing on these processes and procedures.

A major initiative being implemented within the program is a review of the current status of Biosecurity in Western Australia. This whole of government review will provide a clear direction addressing identified gaps in the current Biosecurity continuum. Another new direction within the program is in the area of emergency management preparedness and response. A specific project has commenced that will focus on ensuring national, State and Department plans are available and consistent, and staff members' capacity to respond to emergencies is being reviewed and developed. This will require identified staff to be trained to nationally accredited competencies and the development of exercises to assess capability and capacity.

The need for increased staff training in regulatory standards has been highlighted with the development and future implementation of BAMB. A Biosecurity Training project has commenced to focus on up-skilling for the new legislation so that staff members can be authorised. Other identified critical training areas include emergency management, compliance and investigations, usage of firearms and poisons, and other technical areas that may be program specific. The challenge is to match this training to national competencies and to allow linkages to formal qualifications through certificates or diplomas. Delivery of this training will be through on-line 'E-learning' with follow-up face-to-face assessment.

Kununurra checkpoint's peak period for private travellers is the northern dry season (April to August) while Eucla, in the south, is busiest during school holidays and just before Christmas. Little seasonal difference exists in items seized from or surrendered by travellers – Kim reports that fresh fruit is the most common, particularly apples. The apples may look healthy to the person carrying them, but some sample fruit cut open at Kununurra checkpoint have contained codling moth that currently is not established in Western Australia's orchards. The checkpoint also intercepts a large quantity of mango seed weevil in fruit from interstate that, if established in Kununurra, would have far-reaching consequences for the ORIA mango industry. Last year 37 tonnes of quarantine risk material were seized from road and air checkpoints – with every gram being testimony to the diligence of quarantine inspectors.

WESTERN WEEDS

A guide to the weeds of Western Australia (Second Edition)

By BMJ Hussey, GJ Keighery, SG Lloyd, J Dodd and RD Cousens

(published by the Weeds Society of Western Australia)

Western Australia – the Wildflower State! But not all the ‘wildflowers’ are truly native to Western Australia: some were brought, in recent times, by human beings. There are more than ten thousand named species of flowering plants growing wild in Western Australia – 90% of them are natives, the other 10% have been introduced. ‘Western Weeds’ will help you to identify the many agricultural, environmental and common garden weeds found throughout the State.

Based on the highly successfully first edition of ‘Western Weeds’, this new edition is more comprehensive and up-to-date. It has 312 pages and describes about 1,050 weeds, with 625 illustrated in colour. There are diagrams to explain plant structures and to help you identify weed species. ‘Western Weeds’ also has a comprehensive index with both common and scientific names of weeds. A plain English glossary of botanical terms is included. The book also has a long-lasting stitched binding.

Weeds are listed under four major groups - Ferns - Gymnosperms (conifers) - Monocotyledons (lilies, grasses, sedges or ‘narrow-leaves’) and Dicotyledons (other flowering plants or ‘broad-leaves’). Plants are organised into families within each group. The descriptions concentrate on the characters that distinguish a species from closely-related ones, but also include flowering time, distribution and region of origin. It should be possible to identify most of the weed species in WA using this information.

‘Western Weeds’ is a comprehensive guide to weeds from all types of land use and from all parts of Western Australia. An essential reference book for:

Farmers Environmentalists Gardeners Horticulturalists Students

-----Order form-----

To order your copy of **Western Weeds 2nd edition**, complete and return this order form with your payment to:

Jo Brown
Department of Agriculture and Food
Locked Bag 4
BENTLEY DELIVERY CENTRE WA 6983

Enquiries: Tel: (08) 9368 3710
Fax: +61 8 9474 2405
E-mail: jbrown@agric.wa.gov.au

Please supply copy(ies) of **Western Weeds 2nd edition**. Please debit my credit card, or alternatively I enclose my cheque/money order for \$.....(\$35.00 plus \$5.50 Postage and Packing per copy within WA. Total \$40.50 per copy).

Method of payment:

Cheque or Money Order
Make cheques payable to
Department of Agriculture and Food

Please charge my credit card
 Bankcard Visa Mastercard
Please tick credit card type

Credit card number
□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □

Card expiry date __/__/__

Name of cardholder _____

Signature _____

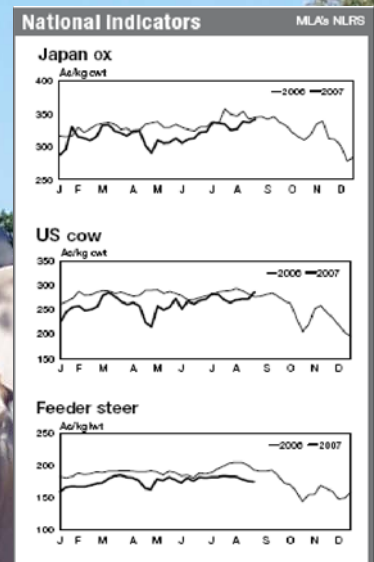
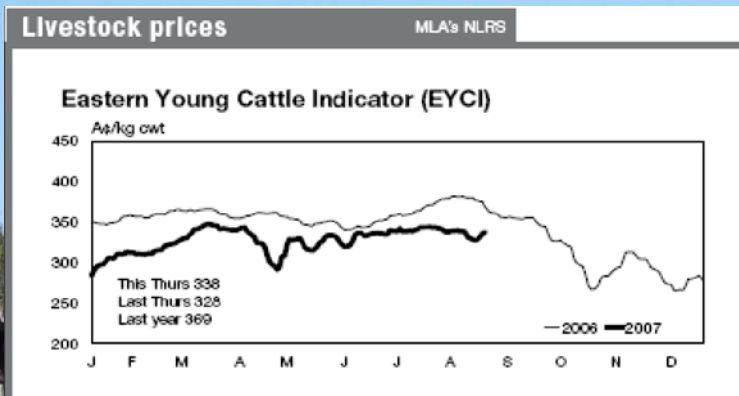
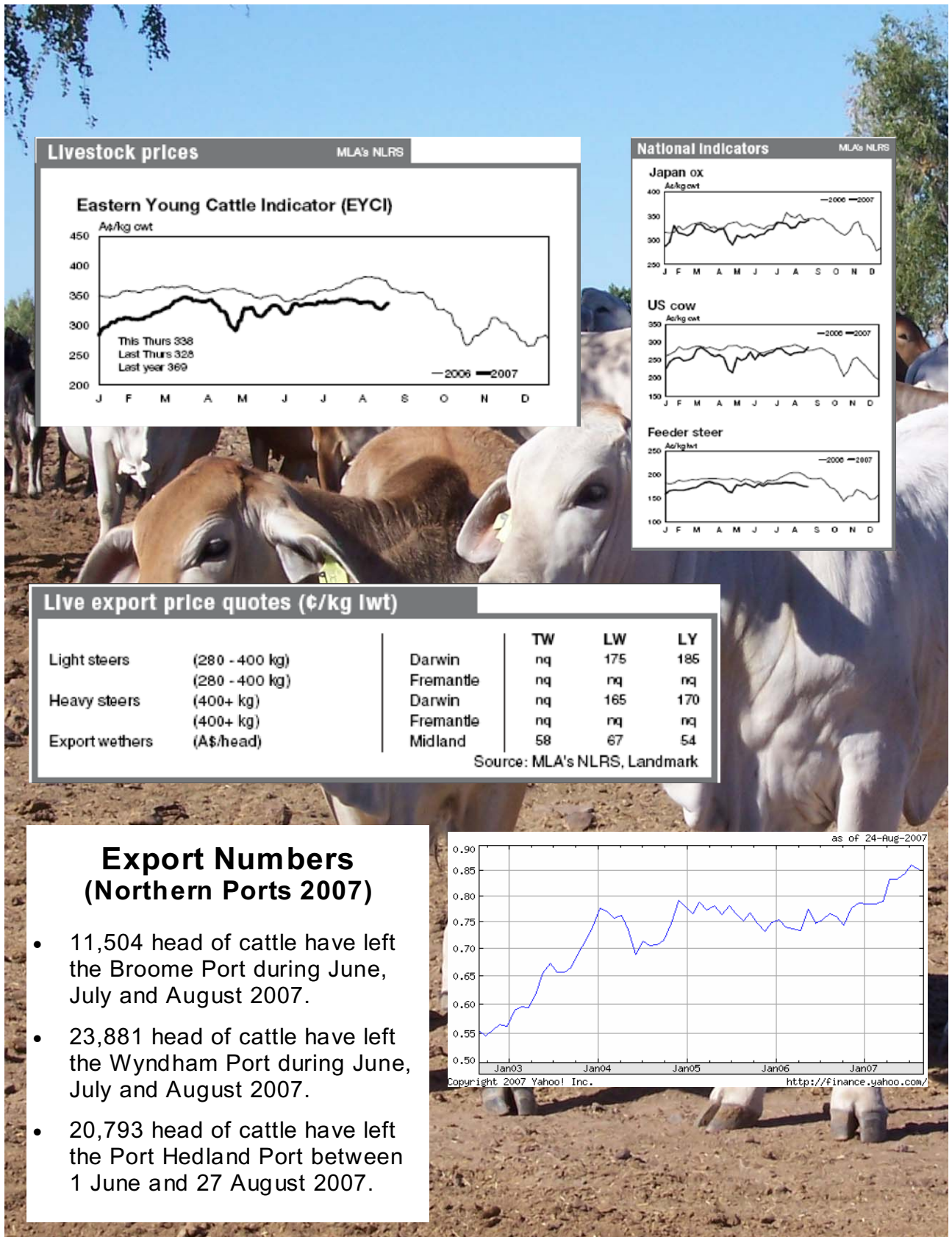
Please post the publication to (please print clearly this is your return address):

Name _____

Address _____

Postcode _____

CATTLE MARKET UPDATE



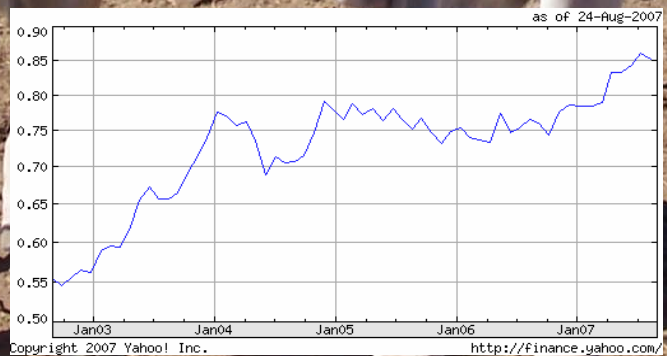
Live export price quotes (¢/kg lwt)

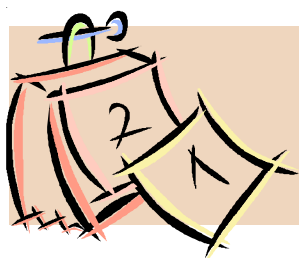
		Darwin	TW	LW	LY
Light steers	(280 - 400 kg)		nq	175	185
	(280 - 400 kg)	Fremantle	nq	nq	nq
Heavy steers	(400+ kg)	Darwin	nq	165	170
	(400+ kg)	Fremantle	nq	nq	nq
Export wethers	(A\$/head)	Midland	58	67	54

Source: MLA's NLRS, Landmark

Export Numbers (Northern Ports 2007)

- 11,504 head of cattle have left the Broome Port during June, July and August 2007.
- 23,881 head of cattle have left the Wyndham Port during June, July and August 2007.
- 20,793 head of cattle have left the Port Hedland Port between 1 June and 27 August 2007.





NORTHERN RANGELANDS CALENDAR

EVENT	LOCATION	DATE	CONTACT
September 2007			
Robe River Rodeo	Pannawonica	Sept. 1	Chris McCarthy - 9159 3128
Landcare Week	National	Sept. 3-7	
Onslow Rodeo	Onslow	Sept. 8	Gwenda Van Vliet - 9184 6617
Harvey Dickson's Country Music	Boyup Brook	Sept. 28-30	
October 2007			
Kununurra Apex Barra Bash	Skull Rock	Oct. 6-7	
Mango Festival	Broome	Oct. 24-26	
Harvey Dickson's Rodeo	Boyup Brook	Oct. 26-27	Rose Dickson - 9765 1125
November 2007			
December 2007			
Coastcare Week	National	Dec. 3-7	

We are always looking for more events to include, please check your diary for events happening in your local area.

NORTHERN RANGELANDS PASTORAL MEMO IS AVAILABLE ON-LINE

For all the avid readers of the *Pastoral Memo* who would like to send an electronic copy to a friend or see colour photographs, please visit the website below to download your copy of the *Northern Rangelands Pastoral Memo*.

www.agric.wa.gov.au/agency/pubns/agmemos/npm

DEPARTMENT OF AGRICULTURE AND FOOD

KIMBERLEY/PILBARA CONTACTS

Northern Rangeland Offices

Broome	9194 1400	Derby	9191 0333
Karratha	9143 7000	Kununurra	9166 4000

Rangelands Manager

Perth

Chris Chilcott 9368 3107

Manager Rangeland Research

Kununurra

Dr Paul Novelty 9166 4017

District Managers

Derby

Sandra Van Vreeswyk 9191 0324

Karratha

Richard Watkins 9143 7001

Kununurra

Noel Wilson 9166 4001

Veterinary Officer

Broome

Matt Bullard 9194 1400

Beef Research/Development Officers

Derby

Michael Jeffery 9191 0352

Karratha

Peter Smith 9143 7002

Manus Stockdale 9143 7005

Rangeland Officers

Derby

Bob McCartney 9191 0353

Karratha

Rebecca Dray 9143 7006

Kununurra

Andrew Craig 9166 4015

Mathew Fletcher 9166 4019

Dave Hadden 9166 4014

Regional Economist

Kununurra

Francis Bright 9166 4016

Stock Inspectors

Broome

Maree Glasby 9194 1400

Derby

Kristie Parker 9191 0323

Kununurra

Dave Muirson 9166 4040

New Opportunities for Tropical and Pastoral Agriculture (NOTPA)

Broome

Chris Ham 9194 1400

Stephen Lucas 9194 1400

Kevin May 9194 1400

Biosecurity Officers

Derby

Mick Everett 9191 0328

Halls Creek

Chad Richards 9168 6179

Karratha

Michael Elliott 9143 7007

Kununurra

Derek Goddard 9166 4044

Sam Mills 9166 4047

Port Hedland

Neville McInerney 9173 1609

Natural Resource Management (NRM)

Program Manager

Derby

John Silver 9191 0351

Regional Facilitator

Kununurra

Matt Reimer 9166 4012

Indigenous Management Support

Broome

Kim Carter 9194 1400

Derby

Russell Shaw 9191 0326

Colin Fuller 9191 0333

Karratha

Andrew Longbottom 9143 7003

Kununurra

Bob McConachy 9166 4011

Nadene Baldwin 9166 4009

Robin Yeeda (Lambo) 9168 8102