

Official newsletter of the Australian Buffalo Industry Council

RIRDC receives report from buffalo genetics and reproduction study

The report on RIRDC's Genetic and Reproduction Improvements in Australian Water Buffalo study, has been submitted and should be available on the corporation website within a few months. Researcher Barry Lemcke outlines some of the key findings from the four-year study

Artificial Insemination Trials

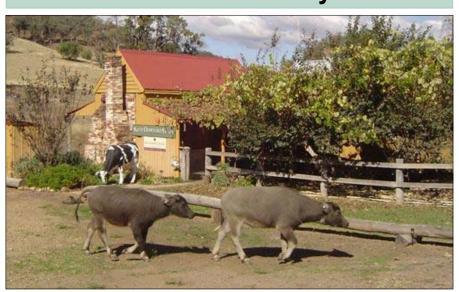
Twelve AI rounds were attempted over four years, with a total of 248 cows inseminated. Some 67 were successful, resulting in live calves being produced. The overall success rate was 27% with the lowest round at 0% and the highest, carried out in the NT in April,

at 41.7%. A lot of the earlier rounds involved a fair number of heifers and our experience is that heifers tend to be much more difficult to navigate through the cervix to enable a uterine deposition of the semen for best results. Overseas literature suggests that 50% is a reasonable success rate. Three different protocols - Ovsynch, Cue-Mates and CIDRs - were tested. Ovsynch was used most but results were very variable.

Different brands of drugs were also used, but while some were cheaper per dose, no clear-cut differences could be recommended widely. Many factors appeared to impact on the success rate and all need to be taken into account when doing an AI program. They included:

- The buffalo breeding season stronger with increasing latitude
- Good quality semen
- Good cow body condition to eliminate possible anoestrus
- Good handling facilities
- Rising plane of nutrition for cows
- Favourable weather conditions
- Quiet temperament, & good workers' stock handling skills
- Good heat detection systems
- Appropriate protocols according to the season
- Experienced inseminators
- Appropriate timing to synchonise AI with ovulation

Buffalo veal that'll make you drool



NSW buffalo producer Graham Manvell is doing his bit to tantalise the tastebuds of guests at his Kitty Crawford Estate vineyard and farm at Ironbark Creek in the glorious Dungowan Valley near Tamworth. "We do wine tastings here and introduce our guests to buffalo through the smallgoods we serve on our antipasto plates," Graham says.

"The other buffalo cuts and steaks go to the steakhouse chain, sSs BBQ BARNS. "We've found buffalo to be an amazing meat, being very lean, and it sells well when it's available on specials at sSs BBQ BARNS.It's great to be able to offer a locally grown product that is a little unique in this area of NSW where you don't generally find buffalo roaming around the paddocks."

Graham says the chef at sSs, Ben Craggs, has 'had a ball' preparing so many different dishes with buffalo meat. "I love it", Ben has said. "I see it as a great healthy lean meat and even though slightly firmer in texture the flavors are amazing. He says they trialled buffalo veal and yearling with results that would 'make you drool'.

... and check out Graham's white buffalo on Page 4

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Indonesia still biggest buff buyer

Indonesia remains the strongest buyer of Australian live buffalo through Darwin in 2008.

The August edition of the NT Primary Industry and Fisheries Department's *Pastoral Market Update* reports that 584 buffalo were shipped out to Indonesian markets in July, bringing the total to that country this year to 2218.

In all, 2418 buffalo have been shipped from the Port of Darwin to Asian destinations up till the end of July 2008. The other 144 went to Sabah.

A total of 3905 buffalo were exported from the NT in 2007, with 2865 going to Indonesia, 582 to West Malaysia, 306 to Brunei and 152 to Sabah.

The figures do not include buffalo exported to New Zealand from Queensland and Victoria to strengthen New Zealand's emerging buffalo dairy industry.

Craig & Jana's Cape York buffalo

Craig Gould and Jana Kahabka have built up a burgeoning buffalo business through Turalba Valley Enterprises, at Lakeland on Queensland's Cape York Peninsular.

Craig brought one bull and four cows from the NT to Queensland in 2002 with a dream to build a herd for the meat market. Craig and Jana have since progressed well.

"The original cows have had several calves of their own, and weaners raised from bobby calves from Mitch Humphries' Australian Dairy Buffalo Co at Millaa Millaa form the balance of the present herd," they say.

"After an unprecedented suite of setbacks the first buffalo have gone 300km from the farm gate to the abattoir and then 380km to Cooktown Quality Meats where they have been processed by Ian Ramsey into patties, mince, crumbed steak, several varieties of sausages, smoked roasts, divine silverside and the usual array of cuts.

"We have plans to produce a buffalo meat roll and other smoked lines. We want to go into innovative production of a variety of pre-cooked lines for the convenience and tourist market.

"The Cooktown Bakery was commissioned to make 250 chunky buffalo pies re-



cently and these have been distributed to local road-houses, pubs and cafes. The next week's run was 500 in plain and with bacon and mushroom, and all sold. We have talked to another baker about an ultra gourmet pie to add to the repertoire.

"We also plan to dabble with pet meat lines such as smoked ears and strips of hide to meet the unquenchable pet product market.

"Since 30 July, we have sold 300kg of meat and know we have a winning product. We are negotiating with other landholders to grow buffalo for us under contract to a specified weight and then

purchase back at a contracted price. We have two seriously interested parties already, one in Lakeland and one in Ravenshoe in the Cairns hinterland.

"Our excellent partnerships with the Australian Dairy Buffalo Co. and Cooktown Quality Meats have helped propel us at a dramatic pace. We are very excited about the future of Turalba Valley Buffalo."

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Buffalo News

We welcome contributions on any issue or activity relating to Australia's buffalo industry. Stories and/or photos can be sent to, or discussed with:

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RIRDC research results: An overview

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Further refining of these systems will be continued in the next RIRDC project. A major problem is being able to access suitable cows on which to try different protocols.

As soon as the cow becomes pregnant, there is at least a year's wait before another attempt is possible. There is also the need to co-ordinate cow condition with season and to withhold bulls from the cows for at least two months prior. If the cow is already pregnant most of the protocols will cause the foetus to abort, so the operator must be sure the cows are not pregnant before they are used.

Other results were:

- Apparent marked differences in semen quality. particularly with the imported Italian semen, where success rates vary between 10% and 41.2%. Because total numbers are not large, statistical significance was only achieved between the top and bottom bulls, but the trend is a worry. Producers need to be aware of this problem and order accordingly.
- The sex ratio of calves born to AI cows was 59.6% males, which is not so pleasing if we want more heifer calves

Register & Databases

The project funding was used to procure the services of ABRI at the University of New England to set up databases and recording

systems that would enable the buffalo industry to be on equal footing with the established cattle breeds. The system has two aspects, the first being a Register for the breed so that producers can add their animals to the national database and buyers can consult this facility to see where suitable animals for their purposes may be located. The system's second and more important aspect is the development of a buffalo Breedplan database. This entails all animals being assigned EBVs (Estimated Breeding Values) for economically and objectively measured traits of importance. Because the Australian water buffalo population is small, heritabilities estimates will only become more precise if producers keep submitting measurements of their buffalo and feed them into the system, thereby increasing the precision of the estimates. This means keeping herd records with details to include:

- Date of Birth: each calf needs to be individually tagged to surely identify it.
- Tag of Dam
- Tag of Sire
- Birth weight if possible
- 200 day weight
- 400 day weight
- 600 day weight
- Milk test results if dairying
- Annual start and finish mating dates
- Carcase data when slaughtered.

This can have huge benefits for the industry in the future, enabling it to identify the better sires and dams for both the meat and milk sectors. This will be the way of the future for



people with ambitions to be successful stud farmers in the industry. It will allow livestock purchasers to be able to buy animals that suit their breeding goals, based on objective measures of performance rather than the bull's physical appearance. This allows for continuous herd improvement and also identifies whether things are progressing or deteriorating within a stud or farm. Buffalo producers are encouraged to make full use of these systems that have been set up for the good of the industry.

Genetic Analyses

The original analyses carried out by ABRI of the Beatrice Hill data did not bring a lot of joy. The 1983-98 Swamp data identified some superior bulls that were used in the herd during a selection program for weight gain in bulls. However, genetic progress was fairly flat over the period. The linkages between the older and more recent herds were quite weak due to the destruction of the entire exposed herd to TB in the mid 1990s. Hence the need to continue with current recording schedules to enable better heritability estimates to be developed, and also to have industry members contribute to

ABOVE: Research buffalo at Beatrice Hill Farm near Darwin. BELOW: An AI specialist in action



the database. This will mean producers begging, borrowing or buying scales to do some regular weight recordings on their own farms, to help build up the databases.

The research team acknowledges the tremendous support from RIRDC, and Dr Peter McInnes in particular, in providing funding and advice to help improve production efficiencies in the Australian buffalo industry

Buffalo News & Views ... from around the country

Queensland

Queensland buffalo milk is pretty special. Just ask the experts! Sydney cheese maker Max Somma attracted media accolades recently when he realised his dream of creating a traditional Italian-style mozzarella in his home city. The vital ingredient was Queensland buffalo milk, ordered in from Mitch and Brigette Humphries' Australian Buffalo Dairy Company at Millaa Millaa. The Sydney Morning Herald reported that Max sought advice from a globe-trotting

Italian 'mozzarella troubleshooter', Luca De Rosa, who flew to Sydney from Dubai to see Max. Mr De Rosa reportedly told the delighted Max that the Oueensland buffalo milk was some of the best he'd ever seen. He said he was accustomed to milk with between 7.8% - 8% fat but this batch was 9.8%. Cow's milk is just 3 - 4% 'With its high fat content and unusual chemical structure (smaller fat globules than in cow's milk), the SMH reported, 'buffalo's milk has a unique composition'. Just right, it appears, for a perfect mozzarella!

Northern **Territory**

- An enthusiastic Darwin couple has recently produced the Northern Territory's first buffalo milk from Riverine buffalo - in this century at least! The Top End industry is now looking forward to the advent of local cheese production in the near future.
- ABIC and NT representatives have provided comments in relation to the new Livestock **Transport Regulations** that are currently being drafted by the Australian Government. The regulations cover animal welfare issues for the movement of all animals including buffalo and camels.
- Buffalo importation enquiries have continued to come from a number of countries over the past six months. The most recent query is for a milking heifer group to go to China. China will need animals from Bluetongue free zones.

The query from China comes in the wake of interest from New Zealand, South Africa, Japan, Argentina and Thailand. The buffalo industry is

desperate for a rapid buildup in herd numbers so it is able to service these emerging markets efficiently and cash in on our good export status.

A Northern Teritory Government departmental review of buffalo research and Beatrice Hill Farm is due by November this year. Beatrice Hill has been the main focus of buffalo research in the Territory's Top End for many years. Any industry support will be gladly welcomed to help ensure that this important facility remains viable into the future.

New South Wales

Tamworth district buffalo farmer Graham Manyell has produced a 'blonde with blue eyes' in his buffalo herd - a lovely white specimen which he has called ABU (Pictured below).

Graham say this special buffalo was totally hand-raised and has been easy to lead by hand. Needless to say, she is a big hit with Graham's customers.

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