

2013-14 FutureBeef Priority Area #1

WEANER MANAGEMENT

Background:

The National Beef Research, Development and Extension Strategy was developed in 2009 in a collaborative effort by representatives from the Australian beef industry, state government agencies, academic institutions and research organisations. The intent is to improve research, development and extension capability, capitalising on the collective critical mass around specialised areas. This focussed RD&E investment is expected to improve efficiencies by reducing the more traditional, fragmented RD&E approach. The national beef strategy emphasises the importance of industry partnerships and co-investment to support strategic research, the delivery of regional development and extension tailored to local needs.

In March 2012, the North Australia Beef Research Council (NABRC) conducted a series of workshops across Queensland to identify RD&E priorities. NABRC is a collaborative forum for industry, funding bodies and RD&E providers to lead research, innovation and technology adoption to benefit the northern beef industry. These RD&E priorities were published in a *NABRC Priorities Prospectus* and can be accessed through the NABRC website. www.nabrc.org.au

Six themes or broad areas of work were identified as being the most important for planning of RD&E priorities:

1. Reproduction
2. Grazing land management
- 3. Nutrition and growth**
4. Human capacity and enabling change
5. Animal welfare
6. Information technology; and Precision livestock management

Linkages:

Under the 'Nutrition and growth theme' is a sub-theme:

3.4 Accelerated growth pathways for lifetime productivity

Goal: Optimise lifetime productivity (kg/wt.breeder/lifetime) through accelerated growth pathways

A key RD&E activity is: post-weaning interventions (for early weaning; for later weaning) to improve % cattle meeting production targets and/or market specs.

FutureBeef Program for Northern Australia

In May 2012, key industry funder Meat and Livestock Australia and state agency extension services (DAFF Qld, NTDPIF and DAFWA) launched a collaborative extension program designed to focus extension effort and investment into key priorities outlined in the National Beef RD&E Strategy and NABRC's RD&E priorities in the following five areas:

- Priority 1 – Weaner management
- Priority 2 – Phosphorous supplementation
- Priority 3 – Whole of business management
- Priority 4 – Grazing land management
- Priority 5 – Breeder management

In addition, while other project collaborations and investment from natural resource management groups and catchment groups focus on NRM outcomes, these generally can only be achieved by a whole-of-business enterprise approach. There will also be linkages from these priority areas to the voluntary Grazing Best Management Practice project that is currently being developed and trialled in

Queensland. For more information on the above, visit the FutureBeef website www.futurebeef.com.au – a collaborative website by the FutureBeef program partners.

Weaner management background:

Improved reproductive performance is the main production parameter that most producers across Australia perceive as being their greatest limitation to improved profitability. Various techniques ranging from sound herd health management, breeder cow supplementation and genetics are important in the quest to improve reproductive performance. However, the single most important factor affecting re-conception in a breeder cow is the body condition at calving. This has long been recognised and early data analysis from the Cashcow project is again validating this finding.

Removal of the lactational stress on breeder cows or 'weaning' is the most cost effective and practical means that producers have of managing the body condition of the cows in their breeding herds. While the technique is not new and is widely practiced by most beef cattle producers, the flow-on benefits for the survival and reproductive efficiency of the herd is not as well understood. Both the timing of the event and post weaning care are major issues which need to be carefully demonstrated to ensure the maximum benefits from weaning are realised.

Weaning can be practiced at all ages of the calf but if the nutritional requirements and the body condition of the cow are satisfactory, then weaning can be delayed as long as possible to ensure the calf grows at optimal rates. While separation of the dam from her offspring is a critical time of stress in an animal's life, the process can be undertaken with positive outcomes and secondary productivity benefits e.g. it has been proven that yard-weaned calves have fewer health problems and greater growth rates in feedlots than both their paddock weaned and unweaned counterparts. Furthermore, if low stress stock handling techniques are imprinted at the time of weaning, there are additional flow-on effects from improved animal welfare benefits, better workplace health and safety outcomes and ultimately improved eating quality attributes at the end of the supply chain.

The level of understanding and adoption is quite variable across northern Australia and this has been driven by access and availability of affordable supplements and confidence in the cost benefits of various interventions. In addition, there has been a lack of easily accessible information on the nutritional requirements of young weaned animals over a range of weights and ages. An MLA-funded project, co-ordinated by the Queensland Department of Agriculture and Fisheries (DAFF) with input from FutureBeef partners, collated a wealth of information on the subject. This resultant publication, *Weaner management in northern beef herds*, was produced in March 2013 and promoted widely to industry via the FutureBeef website and partner newsletters and distribution networks. The publication can be accessed on www.futurebeef.com.au

Regional differences:

There are significant differences between the regions as to the management and care of weaners. In the Alice Springs and channel country regions in 2013, both breeder cow condition and weaner growth rates had been exceptionally high. Yet in drought years in the arid areas, stocking rates are so low, weaner paddocks are problematical and imported fodder is so expensive that major challenges exist for producers. In contrast, in the dry tropical regions of the far north, rainfall is much more reliable but annual poor nutrition during the dry season and lack of bull control create ongoing challenges for managers to implement effective controls over the body condition of their breeding cows. Similarly, it seems that the options and costs of suitable weaner supplement declines as the distances west and north increases.

Key 'weaner management' messages:

1. Calves are taken from their mothers mainly for the benefit of the cow.
2. Stopping the need to produce milk reduces the cow's nutrient requirement and allows her to regain condition.
3. Stopping the need to produce milk is equivalent to feeding the cow with 2kg of grain or 3kg of fortified molasses each day.

4. Lighter stocking in breeder paddocks maximises the opportunity for the cows to maintain good body condition.
5. The cow needs to have a body condition score of 3 or higher at calving to maximise the chance of getting pregnant again while rearing her calf.
6. A cow must get pregnant within 75 days of calving to produce a calf every year.
7. With seasonal mating, calves are normally weaned at four to eight months of age in late autumn.
8. With year-round mating, calves are at a wide range of ages at the first muster in late autumn; weaning of all calves over 100kg allows the cows to recover body condition and survive the dry season.
9. If the wet season fails, all calves can be weaned younger under both seasonal and continuous mating systems.
10. Hay is the main feed for weaners in the yard. Good quality hay must always be available from the first day of weaning.
11. Calves weaned under 150kg should be fed to gain weight, and need supplements of highly digestible protein and energy.
12. Heifer calves retained as breeders should be fed to gain 100g/day from weaning to mating.
13. Weaning is the time for educating young animals to set them up for ease of handling throughout their lives.
14. Weaner education includes being worked calmly through the yards and being tailed out from the yards to the weaner paddock and back.
15. Weaner paddocks should be rested over the year to accumulate a body of good herbage; they should not be used as a holding paddock for sale or sick stock, or for the working horses.

Benefits of early weaning

The likely benefits of good weaning and weaner management on the breeder herd include:

- better overall breeder condition
- higher conception rates
- fewer mortalities
- lower cost of supplements for breeders
- more females for sale
- more concentrated calving in
- continuously-mated herds
- more maiden heifers heavy enough to mate.

Extra costs will include:

- more expensive supplementary feed
- more labour for tending small weaners
- increased infrastructure for yarding and feeding weaners.

Topics contained in *Weaner management in northern beef herds*

1. Why wean?
2. The calf's stomach
3. Pasture and grazing management for weaners
4. Weaning strategies
5. Weaner health
6. Feeding weaners
7. Weaner training
8. Longer term benefits

9. Economic impacts

Keys times for weaner management:

Timeframes for 1st round and 2nd round musters will be addressed in the Communication Planner.

FutureBeef activities:

| | Maintaining broad industry awareness | Building knowledge, skills and confidence | Supporting adoption and practice change |
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| DAFF Qld | <ul style="list-style-type: none"> - Weaner management articles in department beef industry eBulletins (all print newsletters will transition to online versions in 2013) - <i>Northern Muster</i> - <i>CQ Beef</i> - <i>BeefTalk</i> - Links to publication posted on FB website and promoted with local articles through 'news' section; Twitter and FB facebook site. - FB website can feature local stories with weaner management focus | <ul style="list-style-type: none"> - Weaner mgt/nutrition to feature in Beef Up forums; relevant project and producer demonstration site field days. - Key messages to feature in Grazing BMP 'Animal Production' module - Key messages to be considered in 'Nutrition' Extension Review project workshop meetings in Feb 2013 | <ul style="list-style-type: none"> - Weaner mgt/nutrition is a key theme of the \$avannaPlan on-property program run in north/north west Qld. Feasibility, affordability and practical weaner management systems are explored and costed on 10 breeding enterprises/year. - Weaner growth path options and market compliance project currently under development – including research an on-property demonstration sites. - Weaner management/nutrition also a component of existing projects. |
| DAFWA | <ul style="list-style-type: none"> - March/April Pastoral memo articles promoting weaning to improve breeder herd productivity | <ul style="list-style-type: none"> - Proposal for a PDS site in the Pilbara to demonstrate the cost benefit and effects on breeder herd productivity of weaning twice a year. Proposal submitted to MLA March 2013 - As part of PDS conduct annual information days focussed on improving breeder herd performance | <ul style="list-style-type: none"> - Document and promote animal performance and costs and effect of weaning management from this PDS. - Guest speaker at annual information days e.g. Fordyce: Bertram: et al |
| NTDPIF | <ul style="list-style-type: none"> - Weaner articles in April and Sept in Rural Reviews - Weaner case study article - Article on findings of Brunchilly and Avago weaning trial- | <ul style="list-style-type: none"> • Stock Courses • Nutrition EDGE? | <ul style="list-style-type: none"> - Consultation with RBRCs and industry to develop project to investigate the weight at weaning and post-weaning feeding strategies required to meet various live weight |

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| | Tim?(Incorporate Fordyce and Petherick into discussion) - NT Pastoral Industry Survey Reports - Katherine and Top End Best Practice Manual - | | gain targets for different classes of weaner cattle |
| MLA | - Story in <i>fridayfeedback</i> with link to Manual - <i>Multiple Feedback features</i> - Breakfast on weaner management - Update information contained in reproductive performance and liveweight gain talks at BeefUp forums | - Webinar series on weaning - Update information contained in Breeding EDGE courses | - Identify producers using best practice weaning for case studies |

Agency Experts:

- MLA - Geoff Niethé
- DAFF QLD – Desiree Jackson and Bernie English
- NT DPIF - Tim Schatz, Keiren McCosker
- DAFWA -

Resources:

All resources available on FutureBeef DVD except those marked with asterisk.

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| MLA | - Weaner management in northern beef herds (2013)* - Well schooled: yard weaning at Yarrie Station (Feedback Jan/Feb 2013)* - Calf care: one-stop shop for managing weaners (Feedback Jan/Feb 2013)* - B.NBP.0520 Weaning management of beef calves – practical guidelines for northern Australian beef producers Final Report (2013)* - Controlling coccidiosis in the dry tropics (Frontier Winter 2010) - Strict weaning pays off (Frontier Autumn 2009) - The importance of early weaning (Frontier Summer 2007) - Defining targets key to successful supplementation (Frontier Winter 2006) - Strategic approach drives CPC nutrition program (Frontier Winter 2006) - Early weaning to maximise productivity (Frontier Winter 2006) - Good weaners are winners in feedlots (Frontier Winter 2006) - PIRD.95.Q04 Phosphorus supplements boost fertility and weaning weight (2006) |
| DAFF QLD | - Boost your profits with good weaner care (Northern Muster Issue 27, 2011) - Controlling coccidiosis (BeefTalk Issue 31, 2011) - Why weigh weaners? (CQ Beef Issue 8, 2010) - Post-weaning diarrhoea (CQ Beef Issue 8, 2010) - Planning for weaning and pregnancy testing (CQ Beef Issue 7, 2010) - Weaning – the cheapest supplement (BeefTalk Issue 29, 2010) - Weaning and educating calves (BeefTalk Issue 25, 2008) - Manage breeding cows to improve weaning rates (BeefTalk Issue 23, 2007) - Molasses based supplements for weaners (Northern Muster Issue 17, 2007) - Yard weaning improves feedlot performance (BeefTalk Issue 19, 2005) |
| NT DPIF | - Cattle and Land management best practices in the Katherine Region – |

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| | <p>Chapter 1, Animal Health (2009)</p> <ul style="list-style-type: none"> - Giving them the best start – weaning in the yards (Katherine Rural Review Edition 299, 2009) - Weaner management (Barkly Beef Edition April 2009) - Alternative Calf Weaning Technique – Nose Rings (Alice Springs Rural Review Vol 41, 2008) - Yard weaning with True Protein Supplement (Alice Springs Rural Review Vol 41, 2008) |
| DAFWA | <ul style="list-style-type: none"> - Feeding weaners – planning and management suggestions (Rangelands memo Vol. 1, No. 2, 2011) |

Tools

- Ration calculator (Weaner manual)

Weaner management case studies:

Case studies highlighted in *Weaner management in north beef herds*

Rearing small calves

- Robyn Richardson “Mt Florance”, Tom Price WA

Educating weaners

- Heytsbury Beef’s “Flora Valley”, Halls Creek WA

Large-early weaning trail

- Heytsbury Beef’s “Flora Valley”, Halls Creek WA

Weaner management

- Glen & Cheryl Connolly, “Blancourt”, Georgetown QLD
- Bob & Joanna Creagh, “Japarra”, Proston QLD
- Chris & Margot Nott, “Alcoota”, Alice Springs NT
- Richard & Lindy Climas, “Mardie”, Karratha WA