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FOR many this is the worst drought in experience, combined with low cattle prices, water shortages and escalating feed prices. There has been some relief rain, though still very patchy. Hopefully there are more good falls by time of printing. Irrespective of forecasts it is timely to adjust stock numbers according to current pasture yields and water supplies to be able to last until next summer.

This BeefTalk edition has a list of drought aid contacts as well as the Rural Financial Counselling Service outline how they can help. Pasture growth and grazing management decisions are discussed as well as an example of calculating a break even price for finishing. Several spreadsheet tools are available on the FutureBeef website to also help in assessing the forage crop varieties they sell and specific establishment and management guidelines for each. For those within or close to the tick line, there are a range of tick related articles.

We welcome feedback and ideas for future topics – simply include them in the quick survey at www.futurebeef.com.au/topics/business-management/beef-business-tools.

Forage oat variety guide 2014 is now available at www.daff.qld.gov.au/plants/field-crops-and-pastures/broadacre-field-crops/oats/forage-oat-variety-guide. Forage oat variety guide 2014 can be downloaded from www.daff.qld.gov.au/plants/field-crops-and-pastures/broadacre-field-crops/oats/forage-oat-variety-guide. Other winter forage options include barley, triticale, wheat and canary. Check with your local seed supplier(s) for more information about the forage crop varieties they sell and specific establishment and management guidelines for each. For those within or close to the tick line, there are a range of tick related articles.

The answer to this question will depend on your location and your approach to normal rainfall. As always, it is important to have a realistic expectation of what to expect from normal rainfall and how it can change throughout the year.

Don’t procrastinate over key decisions

As the end of the summer rainfall season rapidly approaches, a key question springs to mind: when is it too late to realistically expect a significant improvement in seasonal conditions? The answer to this question will depend on your definition of what constitutes a summer rainfall season or ‘brown day’, your location and your approach to normal risk management. As always, it is important to have a realistic expectation of what to expect from normal rainfall and how it can change throughout the year.

For example, Proston (with a median wet season rainfall of 445mm) has a median monthly rainfall of February for 51mm, March of 44mm and April at 20mm. Waiting until the end of April before making management and husbandry decisions such as the setting of stocking rates for our normally drier winter is a higher risk approach. It also does not allow adequate time for pasture growth and recovery between the end of the summer rainfall season, and the arrival of cooler winter temperatures, leading to tropical grass dormancy.

An alternate approach is to define minimum of 50mm event within a consecutive 3-day period is considered your ‘green day’ (the minimum rainfall required to provide an improvement in seasonal and pasture conditions), what is the likelihood of it occurring during the past few months of the summer rainfall season. Using Roma as the example, historically only 30pc of the time is more than 50mm recorded during February, management decisions such as adjusting stocking rates or early weaning need to be considered. Therefore, an appropriate rule of thumb could be that if the season has not improved by the end of February, management decisions such as adjusting stocking rates or early weaning need to be considered.

To investigate rainfall data for your location download the Rainman Streamflow package from www.daff.qld.gov.au. For more information please email david.mcrae@sciences.dsitia.qld.gov.au.
Timely tips for autumn 2014

BREEDERS
- Draft cows according to body condition for tailored management and possible supplementation.
- Start dry season supplementation if the season deteriorates.
- Vaccinate with 5-in-1 or 7-in-1.

CALVES
- Brands - correct legal position.
- Ear-tag - NLIS tags must be applied to the RIGHT (offside) ear.
- Dehorn calves (the younger the better).
- Vaccinate calves at 2, 3, 4 or 6 months of age.

BULLS
- Remove from breeders.
- Check for defects or physical problems (e.g. shovels, leg injuries) - cull.

Animals get to know yard layout. Once settled animals can be tailed out to learn paddock mustering control.

● Less stress on cows and people.

Train weaners correctly to receive substantial benefits.

Wean into best paddock available.

Wean early if necessary - instantly reduces stress on cows in advance of when you want to sell

If selling through the sale yards, draft the cattle into similar weight and type. A well presented pen will usually get better money than one with some lighter and notable finished animals in it.

Once the fattening paddocks are empty, check the fencing and watering points before moving the next mob into new calf grazing pastures. There may need to be mustered to an unfamiliar watering point.

NUTRITION: DRY SEASON MANAGEMENT
- Assess pasture quantity and quality in each paddock. Estimate how much can be carried, and cost of feed.
- Adjust stocking rates if pasture availability is inadequate.
- Adjust stocking rates to maintain a core herd only if there is adequate pasture and fodder resources to meet requirements.
- Start your dry season management plan that was developed earlier, and stick to it.
- Have you records of when you bought chemicals, the with-holding period and use by dates, and are they stored properly?

PARASITES AND DISEASES
- Assess current stocking rates. Is an adjustment required to keep stock and country in good condition?
- Evaluate effectiveness and cost benefit of winter supplementation program.
- Start your dry season management plan that was developed earlier, and stick to it.
- Make sure you have sufficient supplements to meet your dry season management plan requirements.
- Check feed-out equipment.

PASTURES
- Start preparing land for sowing improved pastures past spring or summer.

Grazing decisions into 2014

THE dry months of 2013 have had a dramatic impact on water and fodder reserves in much of central and western Queensland, and many farmers are now considering their options for the coming season. A missed second wet season with only very patchy rainfall will force some major decisions for the year ahead. Whenever possible adjust stock numbers according to the available pasture and water resources for the year. Options for the coming season depending on rain are:

GOOD BREAK TO THE SEASON
- Even if there is good break, the ideal growing season for many of our pastures is coming to a close. Shortening day length means that many grasses will go to seed quickly rather than grow a bulk of feed, so even if rain does fall the capacity for a property to return to a "normal" stocking rate is unlikely. If there is plenty of mulga there may be some recuperation but the recovery rates will be reduced in a shorter season. Whilst there is some opportunity for winter rain and herbage, do not rely on it occurring.

Strategies:
- Keep stock numbers low
- Slow as many paddocks as possible
- Group mobs together and rotate to maximise pasture and fodder recovery
- Market weaners as soon as possible
- Consider planting a winter forage crop if this market is possible
- Consider a co-cropping with a high feed to cost ratio
- Consider sowing with new paddocks
- Consider planting a winter forage crop if this opportunity is available but this also has its risks.

VARIABLE BREAK TO THE SEASON
- It is safer to be very conservative. Often with a variable break, any pasture regrowth is quickly consumed by stock on hand, and the feed will often not have the bulk needed to make a significant difference to the long term condition of the stock. Grass protein levels will be high but there will be little bulk to balance it and some stock will lose weight chasing the pick.

Strategies:
- Check feed-out equipment.
- Start your dry season management plan that was developed earlier, and stick to it.
- Have you records of when you bought chemicals, the with-holding period and use by dates, and are they stored properly?

If ticks are a problem consider testing some ticks for resistance, call your Department of Agriculture, Fisheries and Forestry on 13 25 23.

Check worm burdens in weaners. Treat if necessary.

BUSINESS MANAGEMENT
- Consider tax planning meeting with accountant.
- Assess success of previous year’s business plan.
- Plan Management strategies for next 12 months (budget, property maintenance and development, marketing etc)
- Avoid any on-farm livestock Production Assurance (LPA) records update?
- Have you records of when you bought chemicals, the with-holding period and use by dates, and are they stored correctly?
- Do you have mob records showing date of use of chemical and when that mob came out of the withholding period?
- Would you pass a random audit?

PROPERTY MAINTENANCE
- Once the weaners are in their new paddocks, reassess your yards.
- Did they stand up to the weaners well.
- Do rails need replacing.
- Are your on-farm Livestock Production Assurance (LPA) records up to date?
- Have you records of when you bought chemicals, the with-holding period and use by dates, and are they stored correctly?
- Do you have mob records showing date of use of chemical and when that mob came out of the withholding period?
- Would you pass a random audit?

REAL Qualifications REAL Jobs

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Aid package available as drought worsens

Eighth per cent of Qld drought declared

THE Queensland Government announced a new drought-assistance package in January 2014 that includes an expansion of the existing measures announced in May last year, and a range of new assistance to help farm families, farm businesses and farm communities affected by drought.

FINANCIAL ASSISTANCE


Assistance is available to producers with properties in drought-declared areas or with an individually droughted property (IDP) declaration, including:
- A freeze on rural land rents in 2013–14 financial year.
- Transport concessions for drought-affected primary producers.
- Mental health and community support workshops to help those who may be finding it difficult to cope.

Drought Relief Assistance Scheme (DRAS): This scheme provides up to $20,000 (or up to $30,000 with a federal government top-up of $20,000 per financial year) with an approved property drought-management plan. Examples of EWIRs include sinking a bore on a droughted property (IDP) declaration, including:
- A freeze on rural land rents in 2013–14 financial year.
- Transport concessions for drought-affected primary producers.
- Mental health and community support workshops to help those who may be finding it difficult to cope.


Income support: Call the Drought and Farmer Assistance Hotline on 13 23 16 or visit the federal Department of Human Services. Income support, Interim Farm Household Allowances and assistance for isolated children information is available at www.humanservices.gov.au.


Transport concession and assistance for road trains: Assistance for drought-affected primary producers may be available for the payment of fees and permit requirements, including vehicle inspection fees, drought road train permits, pilot escorts and vehicle height limits when transporting livestock or machined baled hay. Visit www.tmr.qld.gov.au or call 13 74 68.

School Transport Assistance Scheme: Families who drive their children to school or connect with a school bus run may be eligible for an increase in the school transport allowance. Visit www.tmr.qld.gov.au or call 13 74 68.


Electricity rebates or concessions: Visit www.dews.qld.gov.au or call 13 43 87.

Ergon Energy: For drought-relief rebates or concessions visits www.ergon.com.au or call 13 60 60.

Legal Aid Queensland: Rural legal services for severe, debt-related problems, lender disputes, or financial hardship with farming businesses. Visit www.legalaid.qld.gov.au or call 1300 65 11 88.

The Tetla Bill Assistance Program: Short-term emergency relief to residential customers if you are unable to pay your Telstra fixed home telephone bill. Administered by national welfare organisations including the Salvation Army, Smith Family, Anglicare and St Vincent de Paul. Queensland – Salvation Army, (07) 3222 6666; NSW – Smith Family, (02) 9085 7222.

CLIMATE AND MANAGEMENT INFORMATION

The current Queensland drought situation report, map and seasonal outlooks are at www.longpaddock.qld.gov.au/queenslanddroughtmonitor.


SOCIAL AND COMMUNITY SERVICES

● Lifeline: 13 11 14. Crisis counselling line, 24 hours, for individuals and families.
● Salvation Army: 1300 36 36 22. Telephone counselling 24 hours a day, 365 days.
● BeyondBlue: 1300 224 636. Help with personal issues, depression or anxiety.
● Relationships Australia: 1300 364 277. Confidential counselling and family support services.
● Kids Helpline: 1800 55 1800. A national, 24-hour telephone counselling service for children and young people (ages five to 18).
● Women’s InfoLine: 1800 177 577. Free, confidential information and referral service Queensland-wide to support women.
● Queensland Health: 13 43 25 84. Provides a series of mental health and psychological support workshops across drought-affected areas. Workshops aim to enhance mental health and well-being in communities affected by drought, and provide community members and human service workers with the skills to identify, support and protect people who may not be coping during difficult times.
● Frontier Services: 1300 787 247. Provides health, family, community services and pastoral support in remote Australia.
● Outback Links: 1300 731 349. Places volunteers with rural and remote families for short periods.
● The Bush Connection: (07) 4639 7987. Provides free confidential support and referral, including personal support, identifying options and advocacy in crisis situations.
● Other assistance: Local doctors, clergy, hospitals or community health centres can also help.
Drought Management Plan

Emergency Water Infrastructure (EWI)

Application process and to discuss other business and financial queries in relation to their enterprise.

The Federal Government is now providing an original tax invoices must accompany any DRAS assistance programs.

IFHA is provided to help farm families experiencing financial hardship, and who have no alternative sources of impartial assistance, to manage the challenges of change and adjustment. The purpose of the Rural Financial Counselling Service Program is to provide FREE support to primary producers, fishers and small rural businesses who are suffering financial hardship, and who have no alternative sources of impartial assistance, to manage the challenges of change and adjustment.

Contact Us:

Biloela: John Lacey 0448 124 016
Charleville: Brian Doohan 07 4654 3485
Gatton/Towowoomba: Francis Harvey 0419 732 591
Kingaroy: Ian Bronne 0448 999 742
Lockyer Valley/SE Queensland: Cath Carter 0477 056 074
Warwick: Dönna Neale-Arnold 0438 738 693

The contact numbers for the RFCS Queensland South Western Region rural financial counsellors.

Rural Financial Counselling Service gives assistance, information

With the majority of Queensland in drought conditions, many primary producers are contacting the Rural Financial Counselling Service to seek information on various assistance programs, the application processes, and to discuss other business and financial queries in relation to their enterprise.

The Queensland Drought Relief Assistance Scheme (DRAS) is available for eligible primary producers located within a drought-declared area. The scheme has been set up by the Queensland government to help primary producers in the grazing industry manage their livestock resource during drought and to help in the restoration of that resource after drought.

DRAS provides freight subsidies on the transport of fodder and water during the drought, and the transport of animals returning from adjustment and animals purchased for restocking after the drought.

The DRAS scheme also provides a rebate on emergency water infrastructure (EWI), which includes assistance for the purchase, supply and installation cost of water infrastructure purchased for emergency animal welfare need. A completed Water Availability Statement to confirm water need must be approved by the Department of Agriculture, Fisheries and Forestry prior to applying for the EWI rebate.

Original tax invoices must accompany any DRAS application. The Federal Government is now providing an additional 25 per cent rebate of the total cost of emergency water infrastructure. The total rebate the applicant may now receive is now 75pc of the total cost of the water infrastructure only.

If the producer has no drought-management plan in place, the maximum amount of rebate/subsidy an applicant can receive under all of the DRAS schemes (including freight and EWI) is $20,000. With a drought-management plan in place, the maximum amount the applicant can receive is $50,000. The extra $25k only applies to EWI and is retrospective, and will be automatically paid to those who have already received the 50pc Queensland Government rebate for EWI.

For any inquiries or assistance with a drought-management plan or an application for assistance, a rural financial counsellor may be able to assist.

Income Support – Interim Farm Household Allowance

The federal government has announced a new program known as the Interim Farm Household Allowance (IFHA). Primary producers have been able to lodge an application for this assistance from March 1, 2014.

IFHA is provided to help farm families experiencing financial hardship to meet household needs and improve long-term financial security. Claims for IFHA will be accepted until June 30, 2014.

Eligibility Basics

Applicants must:

Be a farmer.

Contribute a significant part of your labour and capital to the farm enterprise based on specific criteria.

Meet with a rural financial counsellor.

Meet an income and assets test.

Producers who currently receive the Transitional Farm Family Payment will be automatically transferred over to the Interim Farm Household Allowance. Former primary producers who have previously received 12 months’ support through the Transitional Farm Family Payment or Transitional Income Support can submit a claim for IFHA. More information on IFHA can be found at www.humanservices.gov.au/customer/services/centrelink/transitional-farm-household-allowance, by telephoning Department of Human Services on 13 23 19 or contacting your local rural financial counsellor.

The RFCS can help rural producers with further information on this and other government assistance programs. The RFCS program is supported by the Federal government and the Queensland Government.

Rural Financial Counselling Service what can A Rural Financial Counsellor Help You With?

• Help clients identify financial and business options

• Help clients negotiate with their lenders

• Help clients develop an action plan

• Help clients meet their mutual obligations under the Interim Farm Household Allowance

• Give clients information about government and other assistance schemes

• Refer clients to accountants, agricultural advisers and educational services

• Refer clients to Centrelink and to professionals for succession planning and family mediation

Rural Financial Counsellors do not provide family financial or social counselling or financial advice – but they can provide referrals and information.

If you are affected by drought contact one of our rural financial counsellors for information on assistance programs.

Contact Us:

Biloela: Angie Border 07 4654 3445
Charleville: Ritchie O’Conner 0427 565 674
Gatton: Tamara Van Der Heide 0412 198 487
Kingaroy: Kevin Staines 0439 322 402
Lockyer Valley: John McCarthy 0407 462 794
Warwick: Fiona Reed 0438 738 691

www.rfcsqcsr.com.au

Rural Financial Counselling Service

Australia’s variable rainfall poster 1890-2013

A GREAT way of examining Australia’s rainfall variability is a poster showing annual rainfall in Australia from 1890-2013. All major droughts and floods are highlighted. It’s very popular with producers and can be seen on the walls of many rural homesteads. It’s also a useful education tool because it connects with producers’ experience of rainfall and shows the association with the El Nino Southern Oscillation (ENSO), a key driver of rainfall in eastern Australia.

Understanding ENSO can help producers manage rainfall variability. Producers have just been updated to include up until 2013.

They are available on the LongPaddock website (www.longpaddock.qld.gov.au/producer/australiasvariableclimate.pdf), or printed copies can be picked up free of charge from the Toowoomba DISRA office (1I Street), various south region DAFF offices (Goonwindy, Dalby, Roma, Charleville, Cumumba, Warwick, Toowoomba) or the Ecosciences Precinct, Dutton Park, Brisbane.

Another interesting way of examining our variable rainfall is using the slider bar generated by the ABC news website www.abc.net.au/news/2014-02-26/100-years-of-drought/5296303.

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Foraging for profitable beef production

Getting to the business end of high-output forages in Fitzroy

KEY findings from a range of forage systems will be presented at field days across the Fitzroy basin district in April.

- High quality annual and perennial forages play an integral part in beef backgrounding and finishing operations in the Fitzroy basin area. Forages such as oats, forage sorghum, lab lab, kucana, butterfly pea, and perennial pastures are all used within beef production enterprises, but which ones perform the best?

The High Output Forages project worked with 13 beef producers between Taroom and Capella for over 3 years collecting forage, animal and economic information from 25 paddock sites. The project, co-funded by the Department of Agriculture, Fisheries and Forestry and Meat & Livestock Australia, benchmarked the commercial performance of a range of forages to identify ways to improve their profitability.

- Each site provided information on soil nutrients and moisture, forage yield and quality, cattle class, liveweight gain, diet selection, stocking rate, grazing and moisture, forage yield and quality, cattle class, profitability.

- The information workshops will be held at:
  - Wed 16 April, 9.30am – 1pm, Warwick Town Hall
  - Thurs 10 April, 9.30am - 1pm, Millmerran Community & Cultural Centre
  - Tues 15 April, 9.30am – 1pm, Stanthorpe Civic Centre
  - Wed 9 April, 1.30pm – 3.30pm, Inglewood Civic Centre
  - Tues 8 April, 12.30pm – 4pm, Texas Memorial Hall
  - Fri 4 April, 9.30am – 1pm, Chinchilla Cultural Centre
  - Thurs 3 April, 9.30am – 1pm, Western Downs Regional Council Tara Customer Service Centre
  - Wed 2 April, 9.30am – 1pm, Moenie Crossroads
  - Mon 30 March, 9.30am – 1pm, Goondiwindi Cultural Centre

- Forage Oat Variety Guide 2014

The Forage Oat Variety Guide 2014 is now available and can be downloaded free of charge from the Department of Agriculture, Fisheries and Forestry website. It provides an overview of the latest practices and developments in the management of forage oat varieties. The guide was produced by DAFF with funding from Meat & Livestock Australia.

- Financial assistance information workshops for drought declared areas

The Queensland Government is continuing its efforts to provide drought assistance information to drought declared areas across the state with a series of financial assistance information workshops throughout April 2014. Department staff will be on hand, along with the Rural Financial Counselling Service and Queensland Rural Adjustment Authority to convey information on the drought financial packages and other available drought assistance measures.

- To RSVP, contact Sue-Anne Topp, DAFF Toowoomba (07) 4688 1605 or sue-anne.topp@daff.qld.gov.au

Producers wanting to apply for DRAS including the Emergency Water Infrastructure Rebate should contact DAFF on 13 25 23, or access the DRAS claim forms at www.daff.qld.gov.au

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Forage budgets are key to calculate stocking rates

Use this management tool to allow early planning

MANY of us have received some reprieve from the harsh seasonal conditions being experienced at the moment with some welcome rain in recent weeks. This has allowed for some grass growth before it gets colder and it then slows again.

The question is, how much grass do we have and how long will it last? To find out, we can do an annual forage budget.

WHAT IS A FORAGE BUDGET?
A forage budget matches available pasture, or dry matter (DM) to the number of cattle that can graze it. It aims to ensure a balance between the amount of feed in a paddock at the end of the growing season and the number of stock in that paddock and their requirements of feed over the grazing period (usually the dry season).

It indicates whether this available feed will last the stock until the next time we expect to get grass growing rain.

Forage budgets allow early decisions. Knowing how much stock can be carried through the year is essential to consider feeding for 60 days, in hope of useful rain, and sell later if there is not a break.


Forage budgets can be used to plan when to buy and sell, grazing duration and rotations, pasture selling programs and the use of fire as a management tool.

HOW DO I DO A FORAGE BUDGET?
The two steps are estimating feed supply, and estimating feed demand. These estimates are combined to give an overall budget.

ESTIMATING FEED SUPPLY
First, estimate the total forage available in the paddock.

Use either photo standards for comparison or cut, dry and weigh samples from 5-10 quadrats to calculate average DM per hectare.

Remember to take into account patchy areas – the supply is an estimate of available pasture across the whole paddock.

Second, estimate the amount of unavailable forage as a percentage of the total, including unpalatable forage (e.g. dual leaf, waxy grasses), detritus (or leaf fall) and the amount of forage to leave behind after grazing (residual feed).

Leaf detritus is usually around 15 per cent of the total available pasture and the residual should usually be at least 1000-1200kg DM/ha.

Residual feed is especially important for maintaining groundcover and minimising runoff when storms arrive.

This is especially helpful when considering feeding steers or other cattle destined for market. It may also help in deciding whether to sell breeders now or feed and sell later if there is not a break.

Example
 Breeders are currently worth $1000/tonne and you are considering feeding for 60 days, in hope of useful rain, otherwise you will sell. You are feeding whole cottonseed at $500/tonne (i.e. 60kgc), 3kg every 2 days.

Weight now = 350kg + $35/kg/head
Feed costs for 60 days = $1.80 every 2 days = $54/kg/head.

Weight after 60 days = 355kg.

Worth = $350 + $54 = $404/head.

Is the price likely if there is not sufficient rain?
If this turned into a long-term feeding program, for example, for ten months with an average feed cost of $2.10/kg, it would cost $300/head for feed alone. The new breakeven price becomes ($350 + $360)/355kg = $2.00/kg (liveweight) just to cover the feed cost.

This does not include labour, fuel, repairs, maintenance, interest, stock losses or the impact on pasture (one of the big unknowns is how much the feeding option sets back pasture recovery and future productivity). On these figures it is cheaper to sell and buy back.

Forage budgets are key to calculate stocking rates

Cattle feeding break-even analysis

AS the window for useful summer rain closes in many areas, it is important that we keep assessing the forage situation across our properties and review our drought plans to make timely decisions.

These decisions include selling stock, feeding aggressiveness if possible, or starting/continuing with a feeding regime. Any decision needs to take into account the number of factors, including available feed, supplement/toddler costs, market access, and cattle condition.

One tool that may be useful when considering whether or not to feed is a simple break-even analysis.

Forage budgets are key to calculate stocking rates

Forage budgets are key to calculate stocking rates
Handy steps to costing nutrients for livestock

Comparing supplements, just like at the supermarket

<table>
<thead>
<tr>
<th>Feed</th>
<th>Price</th>
<th>Freight (DM)</th>
<th>$/t as fed</th>
<th>%</th>
<th>DM</th>
<th>M(\text{E}) (MJ/kg)</th>
<th>Energy</th>
<th>Cents per MJ ME</th>
<th>CP%</th>
<th>CP%</th>
<th>$/kg CP</th>
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</thead>
<tbody>
<tr>
<td>Grain</td>
<td>340</td>
<td>50</td>
<td>350</td>
<td>39</td>
<td>90%</td>
<td>12.0</td>
<td>10.8</td>
<td>3.6</td>
<td>11.6</td>
<td>10</td>
<td>3.94</td>
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<tr>
<td>Palm kernel meal (PKM)</td>
<td>330</td>
<td>70</td>
<td>400</td>
<td>40</td>
<td>90%</td>
<td>12.0</td>
<td>10.8</td>
<td>3.7</td>
<td>24.0</td>
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<td>2.80</td>
</tr>
<tr>
<td>Whole cottonseed (WCS)</td>
<td>450</td>
<td>50</td>
<td>600</td>
<td>50</td>
<td>90%</td>
<td>13.0</td>
<td>11.7</td>
<td>4.3</td>
<td>24.0</td>
<td>22</td>
<td>2.31</td>
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<tr>
<td>Steam flake forage</td>
<td>393</td>
<td>60</td>
<td>443</td>
<td>44</td>
<td>3%</td>
<td>10.5</td>
<td>9.6</td>
<td>4.7</td>
<td>12.0</td>
<td>11</td>
<td>4.10</td>
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<tr>
<td>Steam flake starter</td>
<td>383</td>
<td>60</td>
<td>432</td>
<td>43</td>
<td>2%</td>
<td>10.0</td>
<td>9.0</td>
<td>4.8</td>
<td>12.0</td>
<td>11</td>
<td>4.00</td>
</tr>
<tr>
<td>Hay</td>
<td>180</td>
<td>200</td>
<td>330</td>
<td>38</td>
<td>89%</td>
<td>8.5</td>
<td>7.6</td>
<td>5.0</td>
<td>8.6</td>
<td>8</td>
<td>5.02</td>
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<tr>
<td>Chickpea</td>
<td>480</td>
<td>60</td>
<td>630</td>
<td>53</td>
<td>39%</td>
<td>12.0</td>
<td>10.7</td>
<td>5.0</td>
<td>20.0</td>
<td>18</td>
<td>2.98</td>
</tr>
<tr>
<td>Cottonseed meal</td>
<td>680</td>
<td>100</td>
<td>680</td>
<td>68</td>
<td>90%</td>
<td>12.0</td>
<td>10.8</td>
<td>6.3</td>
<td>43.0</td>
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<td>1.76</td>
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<td>Grumo meal</td>
<td>125</td>
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<td>325</td>
<td>32</td>
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<td>10.8</td>
<td>5.2</td>
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<tr>
<td>Canola meal</td>
<td>480</td>
<td>100</td>
<td>680</td>
<td>80</td>
<td>90%</td>
<td>9.0</td>
<td>9.0</td>
<td>6.4</td>
<td>36.0</td>
<td>92</td>
<td>1.79</td>
</tr>
</tbody>
</table>

Prices and freight are by way of example only. CP = crude protein, DM = dry matter; MJ/ME/kg = Megajoules of metabolisable energy per kilogram.

**FutureBeef program**

The FutureBeef program has hit the ground running this year. There are already 50 events already scheduled for the first half of the year and more on the way. A focus has naturally been on the drought conditions across much of Queensland. Check out our FutureBeef website drought page: www.futurebeef.com.au/topics/drought, which gives you a snapshot of relevant information. If you weren’t one of the 266 people who registered for our recent drought decisions webinar, then make sure you watch the recording on our website as it covers the decisions you may need to be making at this time. Roger Sneath presented on forage budgets, adjusting cattle numbers and choosing between different feed supplies. He also profiled a handy calculator, now on our website, to help you compare feeding versus selling. All this FutureBeef activity is made possible through a partnership between Meat & Livestock Australia and the governments of Queensland, the Northern Territory and Western Australia.

More information on WCS is available at www.dpi.qld.gov.au/environment/comparisons, or from your local DAF&W officer.

**More information**

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**Contact details**

Email: roger.sneath@daff.qld.gov.au
Phone: (07) 3255 4324

Ongoing test to get breeders onto phosphorus-rich diet

New supplement strategy reveals emerging trends

A MAJOR experiment at Brian Pastures Research Station near Gayndah is evaluating better ways to get breeders to eat phosphorus (P). For the past seven months, 40 heifers have been individually fed to evaluate a new P supplementation strategy. Project leader Dr David McNeill explained that even though the experiment will not finish until April, some clear trends are already emerging.

About 70 per cent of the grazing land in northern Australia is P deficient, and the expense of P supplementation is a huge issue for profitability. Current advice is to supplement heifers with Pts to meet their immediate.Knowing the size of the problem, and that the heifers need to eat phosphorus (P). McNeill explained that even though the experiment will not finish until April, some clear trends are already emerging.

About 70 per cent of the grazing land in northern Australia is P deficient, and the expense of P supplementation is a huge issue for profitability. Current advice is to supplement heifers with Pts to meet their immediate nutritional needs, that is, in lactation. However, feeding P while heifers have a calf at foot is only useful if they actually eat the supplement.

The challenges of the wet season can make this difficult.

The 'pre-loading' strategy examined in this experiment is to try to pre-load heifers with phosphorus in the dry season, when they should be pregnant and it's relatively easy to get them to take a supplement. Bone is a rich source of P, and the heifer's skeleton could potentially be used to store large amounts of P.

The heifer could then draw on these body stores of P through the next wet season, when they should have a calf at foot. Phosphorus is especially needed as it maximises the heifer's ability to produce milk. Milk is very rich in P.

The experiment started in June 2013 and will finish early April 2014. It covers the last four months of pregnancy and the first three months of lactation, followed by a recovery phase of six weeks after weaning when all heifers will be fed a high P diet.

Forty maiden heifers due to calve at three years of age were started on a diet rich in energy, protein and fibre with both diets identical apart from the presence or absence of Kynophos as the P supplement.

During lactation the fibre was reduced and energy increased to meet the nutritional demands of the heifers and calves. In pregnancy, half the heifers were fed the diet with Kynophos fully mixed into their diet, and the other half without. At calving these groups were split again into half with and half without Kynophos.

So, is it viable to supplement in the dry but not the wet? Emerging trends show that after four months on the high P diet the pre-loaded heifers gain an extra 45kg of live weight by calving, and use these body stores to produce about 30pc more milk than heifers on a low P diet through the next wet season, when they should have a calf at foot. Phosphorus is especially needed as it maximises the heifer's ability to produce milk. Milk is very rich in P.

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## Registered acaricides

<table>
<thead>
<tr>
<th>Chemical group</th>
<th>Chemical active</th>
<th>APVMA registered product name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organophosphates</td>
<td>chlorantraniliprole</td>
<td>Young’s Flutik Pour–on Tick Development Inhibitor</td>
</tr>
<tr>
<td></td>
<td>chlorpyrifos</td>
<td>Tickstar Pour–on Tick Development Inhibitor</td>
</tr>
<tr>
<td></td>
<td>cypermethrin</td>
<td>Annivex Cattle Dip &amp; Spray</td>
</tr>
<tr>
<td></td>
<td>deltamethrin</td>
<td>Bovimectin Plus Injection Broadspectrum Antiparasitic Injection for Cattle</td>
</tr>
<tr>
<td></td>
<td>fluazuron</td>
<td>Insect growth fluazuron Acatak Duostar Tick Development Inhibitor &amp; Broad Spectrum Pour–on</td>
</tr>
<tr>
<td>Mammacaricid</td>
<td>abamectin</td>
<td>Young's Tricalmec Cattle Pour-on Flukicide &amp; Broad Spectrum Anthelmintic</td>
</tr>
<tr>
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<td>Top End Mectin Pour-on for Cattle</td>
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<td></td>
<td>eprinomectin</td>
<td>Ivomec Antiparasitic Injection for Cattle</td>
</tr>
<tr>
<td></td>
<td>imidacloprid</td>
<td>Genesis Ultra Injection Broad Spectrum Antiparasitic for Beef Cattle</td>
</tr>
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<td>ivermectin</td>
<td>Bovimectin Antiparasitic Injection for Cattle &amp; Pigs</td>
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<td>moxidectin</td>
<td>Noromectin Plus Broadspectrum Antiparasitic Injection for Cattle</td>
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<td></td>
<td>pyrethroids</td>
<td>Barricade 'S' Cattle Dip and Spray</td>
</tr>
<tr>
<td></td>
<td>pyrethrins</td>
<td>Coopers Blockade 'S' Cattle Dip and Spray</td>
</tr>
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</table>

**Resistant to acaricides**

Acaricides are chemicals used to kill acarids, including ticks and mites. Like all living things, ticks have the ability to overcome adversity in order to survive. Over time, repeated exposure to the same acaricide can lead to resistance in ticks, enabling them to tolerate and survive chemical applications.

- When resistant ticks survive an acaricide, they pass on this genetic capability to their offspring. Initially, the frequency of the resistant gene in a tick population is very low, although with time, further selection pressure through continued use of the chemical results in a population of resistant ticks (Agnote: Acaricide resistance in cattle ticks, Kearney, NT DPIF, 2011).

There are five chemical groups available in Australia for treating cattle ticks: organophosphates (OPs), synthetic pyrethroids (SPs), amidines (e.g. amitraz) and insect-growth regulators (IGRs, e.g. fluazuron). How they work and the time it takes to see an effect after treatment varies, and is briefly explained in ‘How acaricides kill cattle ticks’ in this edition of Beeftalk.

Acaricide resistance is more prevalent in coastal areas but can occur in any part of Queensland. In free and control zones, resistance is generally associated with the introduction of cattle ticks from the infected zone. Occasionally resistance in the free and control zones develops due to long periods of active infestations. If you suspect your tick treatment isn’t working, you should get your ticks tested for acaricide resistance before starting your next round of treatment.

- Have measures in place when buying stock to minimise the risk of introducing resistant ticks. For example, a thorough protocol with a combination of chemicals, quarantine paddocks, feedlot
- Always follow the manufacturer’s directions for the chemical you’re using. That is, don’t under-dose with the chemical you’re using. That is, don’t under-dose with the time it takes to see an effect after treatment, or be importing onto, your property:
- Be aware of the significant impact on your production costs and profitability.
- Treat your ticks and test for acaricide resistance before starting your next round of treatment.
- Always follow the manufacturer’s directions for the chemical you’re using. That is, don’t under-dose with the chemical you’re using.
- Be aware of the significant impact on your production costs and profitability.

## Treating cattle tick in Qld’s herds

All agricultural and veterinary chemical products must be registered by the Australian Pesticides and Veterinary Medicines Authority (APVMA) before they can be legally supplied, sold or used in Australia.

The following table lists, as a guide only, the chemicals registered for treating cattle tick in Queensland as at February 13, 2014, from the APVMA PUCBIB database at www.apvma.gov.au/products/databases/.

Registered products are grouped according to their key chemical active (for treating ticks) and the corresponding chemical family.

If you’d like more information or you’re developing a tick-control program, talk to your local biosecurity officer and chemical supplier for the most up-to-date recommendations.

---

**You can’t control the weather. But you can make the most of every season with Compudose®, the proven way to maximise growth rates in grassfed cattle. Its 15.8% average liveweight gain advantage allows you to increase total production or achieve market specifications sooner, regardless of the season. Find out how Compudose can be the difference between a good season and an ordinary season – contact your Elanco Animal Health representative on 1800 226 324.**

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**FutureBeef**

**BEEFTALK** 27 March 2014

futurebeef.com.au
 Whilst the number of stock deaths due to prussic or nitrate poisoning is small compared to the number of stock drowning sorghums, it still deserves some consideration. Problems increase with the level of prussic acid or nitrate in the plant and the speed at which animals consume the forage. Particular care should be taken when feeding hay, as high levels of prussic acid can be consumed quickly, especially by hungry stock.

**PRUSSIC ACID POISONING**

All sorghums, including Johnson grass, can cause prussic acid poisoning by releasing the toxic compound hydrocyanic acid (HCN) when the plants are consumed or fermented. Grain sorghums, sweet sorghums and perennial forage sorghums can contain the highest concentrations of HCN. Phosphorus and Sudan grass hybrids have intermediate amounts, and Sudan grass the least.

Cattle are most commonly affected, but goats, sheep and horses have also been poisoned. Purrenians are much more susceptible because cutting and mowing bares their skin, which contributes to cyanide release. Monogononts, such as house crickets, are less susceptible to cyanide poisoning because they derive their enzyme responsible for hydrolysing HCN from cyanogenic glycoside is destroyed in stomach acid. Prussic acid is toxic to cattle, sheep and goats.

This stage begins when the six-legged ‘seed tick’ hatches until the following spring. It then engorging rapidly in the last 24 hours on the host. It then dropping off. The female tick feeds for seven to 10 days, two months mating with females before dying and females. The male tick travels around the host for up to

**SYMPTOMS OF ACUTE POISONING**

The clinical signs are:

- Sudden death in both cattle and sheep
- Convulsions
- Weakness
- Rapid Laboured breathing
- Diarrhoea
- Rectal bleeding
- Black vomit
- Blood in faeces
- Sudden death

**SYMPTOMS OF CHRONIC POISONING**

These signs are:

- Slow progressive wasting
- Weakness
- Slow breathing
- Stagnant or robotic movements
- Slow and shallow breath
- Diarrhoea
- Bloody vomit
- Bloody faeces
- Hiccupping
- Convulsions
- Death

**MANAGEMENT IMPLICATIONS**

A strategic program for susceptible cattle covering a period of 10 weeks will normally control cattle ticks from dropping off and laying eggs. It is started at the correct time during the year – for example, at the time of the spring rise in October (south-east Queensland) – you can avoid unnecessary treatments and save thousands of dollars on chemical, mowing and labour.

You can also use your understanding of the tick life cycle to run a pasture-spelling program to reduce the number of ticks on the ground. The desired duration of pasture spelling varies from four to five months in summer to seven or eight months over winter.

Cattle tick life cycle: saving time, money and effort

**CATTLE TICK LIFE CYCLE**

This ‘on-ground’ stage of the tick life cycle begins when the fully engorged female lays her eggs. The duration varies depending on environmental conditions. Under optimal conditions of high humidity and temperature (summer) eggs can hatch in three to four weeks, while eggs produced during late autumn may not hatch until the following spring.

Hatched larve climb to the top of grass where they can attach themselves to passing hosts. Temperature and humidity affect the length of time larvae can stay alive without attaching to a host.

Their life span ranges from two to three weeks in hot, dry seasons to five or six months over some winters.

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Being aware of, and able to identify, the various life cycle stages can help you avoid wasting resources, and focus your treatments and pasture management to the most susceptible stages in the tick life cycle.

Contact your local Biosecurity Officer on 13 25 23 for more information about cattle tick eradication or control strategies for your area and situation.

Doug McLaughlin, DAFF, Oakey. Phone: (07) 3310 2928. Email: douglas.mclaughlin@dpi.qld.gov.au
Peter Mowett, DAFF, Warwick. Phone: (07) 4660 3673. Email: peter.mowett@daff.qld.gov.au

**Cattle tick life cycle:**

**Testing cattle ticks for resistance (continued)**

**CATTLE TICK LIFE CYCLE**

**CIRCUIT TESTING**

The following stages are a general explanation of how to collect ticks most likely to lay a suitable amount of eggs for resistance testing. More information on a range of tick collection call your local Biosecurity Officer on 13 25 23.

1. Collect your ticks from the second to eighth day of the 14th to 24th day after dipping or spraying.
2. Ticks can be collected over a number of days within these periods, but they must reach the Biosecurity Sciences Laboratory before they start to lay eggs.
3. If you’re using Cyfluthrin or home, allow four days after treatment before collecting ticks.
4. Collect ticks early morning – before 7:30 am if possible. Female ticks that are engorging are in the last 12 hours of their time on the animal and most likely to lay early morning.
5. Collect only the fully engorged ticks. Half-engorged and small ticks only allow a lot of occur are not useful for testing. Avoid collecting nymphs (9-12 days old). This stage is the hardest to kill, and a few may survive dipping, even if they are not resistant to the acaricide.
6. Select ticks from a range of cattle. That is, a few ticks from a number of cattle, to provide a better representation of the tick population. Supply a separate sample from each mob using another dip or spray facility.
7. Collect at least 40-50 fully engorged ticks. A minimum of 40-50 healthy actively fed engorged ticks are required, however, it’s better to send in more ticks.
8. Put ticks in a ventilated container.
9. A plastic takeaway container with air holes punched in the lid is suitable.
10. Don’t put anything else in the container with the ticks.
11. Keep away from all chemicals, sunlight and excessive heat, as ticks can be seriously affected if stored improperly and becomes useless for analysis.
12. Supply as much information as possible on the advice sheet – this helps the parasitologist make a diagnosis. Download a copy from the DAFF website: www.daff.qld.gov.au/__data/assets/pdf_file/0006/6573/GEN0080SpecimenAdvice Sheet.pdf or get a copy from your biosecurity officer.
13. At least nine ticks are required for testing. Avoid collecting nymphs (9-12 days old).
14. Continuously from page 46
Using nose rings for weaning

CALVES and cows bellowing for days at cattle yards and heeding hay at weaning time are familiar to many cattle owners. There are many examples of using nose rings in yards. Various types of these devices have been used around the world for many years. The plastic nose rings are designed to fit into the nostril of the calf and stop the calf being able to reach the cow’s teat. The most common available rings have spikes which make the sucking of the calf on the udder uncomfortable for the cow, but there is a Canadian version without spikes. The nose ring does not interfere with the normal grazing or drinking. The cow is able to dry off her milk supply while not being separated from her calf. This is similar to nature where a cow will eventually wean a calf herself by not allowing the calf to suckle. Fitting the nose rings to the calf needs to be done with the head restrained. The device is easily placed in one nostril and then the other, and a wrench allows it to be tightened for smaller calves. The rings generally have a very high retention rate. Removal of the rings is the reverse process and after washing and disinfecting, the rings can be reused for the next calf crop.

Twelve steps to successfully market your cattle

1. Identify the main beef and cattle markets: Domestic, Japan, Korea, US, live export, other.
2. Know what product you’re currently producing: Feed, feedlot, market, individual, etc.
3. Identify market trends: Customer communication and market intelligence, e.g. MLA reports.
4. Determine what you can produce profitably: Records, analyse enterprise market options.
5. Identify your target customers and what they want: Producers, feedlots, processors, retailers – ask their needs and product specifications using standard language such as AUS-MEAT.
6. Have focused production and services: Breeding objectives, management practices, measure system and finances.
7. Get customers’ satisfaction feedback: Analyse feedback and follow up with customers as required.
8. Refine production to specifications: Adjust breeding objectives, management practices, measure results.
9. Get help/have a bank of resources: Own research, training, agents, government, friends, customers.
11. Feedback to customer expectations: Live animal assessment to specification, paper work, other needs.

Know what product you’re currently producing:

Examples of carcass specifications for some of the markets, which in turn dictate live animal specifications, are shown in Tables 1-3, adapted from the More Beef from Pastures manual available from www.mla.com.au/mbp. The range of specifications between and within markets makes it essential to find out what your cattle buyer requires, including price ranges, downgrade discounts and specific documentation or certification. Specifications can also change depending on the season and availability of suitable cattle.

How will your cattle meet these specifications? Identifying non-compliance will help you pinpoint required management changes given your country, production system and finances. It may also indicate the need to look for alternative markets. For example, if abattoir feedback shows significant numbers of cattle missing premiums due to insufficient fat, then options could include holding stock longer or selecting earlier maturing bulls using EBVs. At local saleyards you might observe that some bred mixes fetch higher prices than others. Free, easy to access market reports and prices are available from Meat & Livestock Australia at www.mla.com.au/prices-and-markets, for example:

- Weekly saleyard reports
- Weekly over the hooks reports
- Indicator prices
- Industry analysis, e.g. Meat & Livestock Weekly
- Domestic and overseas market news and reports.


Table 1. Specifications for common prime beef markets.

Table 2. Feedlot entry specifications for long-fed, mid-fed, short-fed and trade targets.

Table 3. Feedlot cattle exit specifications.

Table 4. Feedlot entry specifications for long-fed, mid-fed, short-fed and trade targets.