PROGRAM

MONDAY, 19 August 2019

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<tr>
<th>Time</th>
<th>Event</th>
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| 4.30pm – 8.00pm | Conference Registration  
Boulevard Auditorium Foyer, Boulevard Level, Brisbane Convention and Exhibition Centre (BCEC), South Brisbane |
| 6.30pm – 8.00pm | Welcome Reception  
Official welcome from Jason Strong, Managing Director, Meat & Livestock Australia  
Boulevard Auditorium Foyer, BCEC |

TUESDAY, 20 August 2019

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<tr>
<th>Time</th>
<th>Event</th>
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| 7.00am     | Conference Registration  
Boulevard Auditorium Foyer, Boulevard Level, BCEC |
| 8.00am     | Boulevard Auditorium  
Welcome  
Andrew Gray, Chair NBRUC Organising Committee  
Conference Opening  
Hon. Mark Furner MP Minister for Agricultural Industry Development and Fisheries |
## Session 1 – Northern Beef Industry  
**Chair – Ed Charmley**

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| 8.25am | **Keynote**  
An international perspective for managing calf mortality - Using technology to help quantify calf loss  
*Dr Raoul Boughton, Institute of Food and Agricultural Services, University of Florida* |
| 9.10am | Putting more “value” into the value chain for northern production systems - outcomes from an industry consultative framework  
*Mick Crowley, Meat & Livestock Australia* |
| 9.35am | The RDE&A for the northern beef industry – feast or famine  
*Bob Karfs, DAF* |
| 10.00am | Morning tea – Boulevard Auditorium Foyer |

## Session 2 – Our northern production systems  
**Chair – Andrew Ash**

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| 10:30am | What can we learn from producer experiences?  
1. Michael Lyons (Wambiana Station Qld)  
2. Jay Mohr-Bell  
3. Kevin Bell (Pardo Station WA) - *Grazed irrigated tropical pastures as a beef production system in the Pilbara*  
4. Sam Ditchfield (Ebor Beef) |
| 11:00am | **Panel discussion**  
*Ben Barrett, ANZ*  
*Ian McLean, Bush AgriBusiness*  
*Jay Mohr-Bell*  
*Kevin Bell, Pardoo Station WA*  
*Sam Ditchfield, Ebor Beef* |
| 11.45am | The impact of drought and growing resilience for beef producers  
*David Phelps, DAF* |
| 12.15pm | Lunch – Boulevard Auditorium Foyer |

## Session 3 – Boulevard Auditorium – Adoption and extension  
**Chair – Brigid Nelson**

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| 1.00pm | **Keynote**  
Pitching beef research  
*Rober Faff, The University of Queensland*  
Top tips for students, post-graduates and career researchers to get their message across the public, peers and funding agencies with impact. Robert will give a “taster” of a hypothetical Shark Tank experience and share some pointers on how the “pitch” can be used towards achieving meaningful engagement and a lasting impression for RDE&A. |
### PROGRAM

<table>
<thead>
<tr>
<th>Time</th>
<th>Concurrent session – Soapbox presentations</th>
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<tr>
<td>2.00 pm – 3.00 pm</td>
<td>Boulevard Auditorium – <em>Chair Tim Mahony</em></td>
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**Animal welfare**
- 54 The effect of insecticidal fly tags on cattle liveweight gain in the Douglas Daly region, NT, **Tim Schatz**, NTDPIR
- 108 Do insecticidal fly tags protect against three day sickness? **Tim Schatz**, NTDPIR
- 4 A single-shot 5-in-1 vaccination at the time of dehorning/castration and prevalence of ‘missing’ animals at future mustering events, **Kieren McCosker**, NTDPIR
- 82 Paraboss for cattle; a new web resource to assist with the control of ticks, flies, lice and worms of cattle, **Jess Morgan**, DAF
- 25 Impact of dehorning and wound infection on live weight gain of beef calves, **Melissa Wooderson**, NTDPIR
- 92 Cattle tick research – realiSTICK progress, **Alicia Tabor**, The University of Queensland

**Nutrition**
- 78 Grazing weaners on oats: the effect of compensatory gain on productivity and profitability, **Kylie Hopkins**, DAF
- 85 Measurements of feed efficiency in protein-deficient diets, **Luis e Silva**, The University of Queensland
- 87 Estimating diet nitrogen use efficiency from isotopes of tail hair in cattle, **Luis e Silva**, The University of Queensland
- 102 Supplementation effects on growth and fertility in lactating Bos indicus cows in the Katherine region, **Kieren McCosker**, NTDPIR
- 29 Desmanthus: A tropical legume for reducing methane emissions in Northern Australian beef cattle, **Bénédicte Suybeng**, James Cook University

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<tr>
<th>Time</th>
<th>Room B1 – <em>Chair Dionne Walsh</em></th>
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**Building human capability for a sustainable industry**
- 23 The FORAGE “Pasture Growth Alert” report: assessing risks to pasture growth and pasture resilience, **Grant Stone**, Queensland Department of Environment and Science
- 35 The role of FutureBeef in marketing and extension, **Jodie Ward**, DAF
- 104 Proposal for consideration: Increasing adoption through campdrafting, Jane Douglas, NTDPIR

**Agritech and smart farming**
- 69 Extension activities to improve technology use on farm, **Eloise Moir**, DAF
- 70 A virtual fencing system did not affect weight gain or body condition of Angus Steers, **Cameron Ralph**, Agersens
- 83 E-Beef Smart Farming in Northern Queensland – improving pasture and business sustainability through adoption of the latest tools and technologies, **Anne Alison**, Southern Gulf NRM
- 111 Watching the grasses grow: using UAVs and satellites to monitor rangeland species composition, **Milou Dekkers**, The University of Queensland
- 116 Watching the grasses grow: using UAVs and satellites to monitor rangeland species composition, **Milou Dekkers**, The University of Queensland
- 96 Probability of visualising a corpus luteum with ultrasound in cycling heifers, **Jarud Muller**, DAF
- 49 Brahman and F1 Senepol x Brahman heifer performance in the NT, **Tim Schatz**, NTDPIR

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<tr>
<th>Time</th>
<th>Room B3 – <em>Chair Maree Bowen</em></th>
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**All things “P”**
- 114 Effect of Phosphorous supplementation on female reproductive performance in phosphorous deficient country in the NT, **Tim Schatz**, NTDPIR
- 50 Phosphorus supplementation and female PiP levels in the VRD, NT, **Tim Schatz**, NTDPIR
- 5 Effective phosphorus supplementation improves profitability, **Maree Bowen**, DAF
- 2 Risk factors of cows associated with plasma inorganic P concentration of calves at weaning, **Kieren McCosker**, NTDPIR
- 3 The post-weaning performance of calves from cows with and without access to P during pregnancy and lactation, **Kieren McCosker**, NTDPIR

**Reproduction**
- 91 Addressing vibriosis (bovine genital campylobacteriosis) diagnostics, **Alicia Tabor**, The University of Queensland
- 96 Probability of visualising a corpus luteum with ultrasound in cycling heifers, **Jarud Muller**, DAF
- 49 Brahman and F1 Senepol x Brahman heifer performance in the NT, **Tim Schatz**, NTDPIR
| 3.00pm | Afternoon tea – Boulevard Auditorium Foyer |
| 3.30pm | **Session 4 – Boulevard Auditorium – Funding strategies for northern Australia**  
*Chair– Peter Johnson* |
| 3.30pm | Directing levy funds through the producer consultation process - looking back on four years  
*Irene Sobotta, MLA* |
| 4.00pm | Managing and reversing the decline in funding for on farm R&D  
*Wayne Hall, DAF* |
| 4.30pm – 5.15pm | Panel discussion  
**Our funding challenge and opportunities** hosted by Leigh Diffy, Advance Qld  
*Wayne Hall, DAF*  
*Stephen Moore, The University of Queensland*  
*Phil Cummins, QIC/NAPCO*  
*Jed Matz, CRC For Developing Northern Australia* |
| 6.30pm | **Conference Dinner and Awards Night**  
Pre-dinner drinks. Recognition of Brian Burns (David Reid, DAF)  
Presentation of NABRC Medals. MC and entertainment by Jean Kittson  
*Grand Ballroom, The Greek Club, 29 Edmonstone Street, South Brisbane* |

### Genetics
- 45 Accelerating genetic gain for fertility: The Northern Genomics Project, Shannon Landmark, QAAFI
- 63 Introducing new genomic evaluation BLUP in Brahman, Gilbert Jeyaruban, Animal Genetics and Breeding Unit
- 66 New diagnostic tools helping poll breeding for sustainable beef cattle production, Intiaz Randhawa, The University of Queensland
- 72 Genetic control of fertility traits across species: variance in heifers' age at puberty explained by women's age at menarche genes, Roy Costilla, QAAFI

### Farming systems
- 53 Intensive rotational grazing of improved pasture in the NT – update, Tim Schatz, NTDPIR
- 16 Benchmarking to improve long-term carrying capacity estimates for extensive grazing properties in Queensland, Gabrielle Penna, DAF
- 14 The re-emergence of dieback in pastures across Queensland, Stuart Buck, DAF
- 109 The Drought Map Sequence viewer: arranging rainfall and pasture maps for explaining drought situations, Grant Stone, Queensland Department of Environment and Science
**WEDNESDAY, 21 August 2019**

<table>
<thead>
<tr>
<th>Session 5 – Poster presentations</th>
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| **8.30am** | Boulevard Auditorium Foyer  
**Chair – Jill Alexander**  
Farming systems |
| **Room B1** | Chair – Don Menzies  
Agritech and smart farming, and Building human capability for a sustainable industry |
| **Room B2** | Chair – Sarah Meale  
Nutrition, Animal welfare, and Genetics |
| **Room B3** | Chair – Tim Schatz  
Reproduction and All things “P” |

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<tr>
<th>Session 6 – Concurrent session – On farm R&amp;D investments</th>
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| **9.25am** | Boulevard Auditorium  
Panel discussion  
**Moderator – Marie Vitelli**  
Managing plant toxins and animal health across N Australia  
Johann Schröder (MLA)  
Chris McSweeney(CSIRO)  
Mary Fletcher (DAF/QAAFI)  
Diane Ouwerkerk (DAF) |
| **Room B1** | Panel discussion  
**Moderator – Steven Bray**  
Managing and measuring the value of the northern value chains  
Tim Moravek (DAF)  
Phil Holmes  
Ben Barrett (ANZ)  
Mark Harrison (QUT) |
| **Room B3** | Panel discussion  
**Moderator – Peter O’Reagain**  
Getting more from a sustainable feedbase  
Gavin Peck (DAF)  
Kendrick Cox (DAF)  
Bron Christensen (TLN)  
Robyn Cowley (NTDPIF) |

| 10.25am | Morning tea – Boulevard Auditorium Foyer |

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<tr>
<th>Session 7 – Concurrent session – Today, tomorrow, technology</th>
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| **10.45am** | Boulevard Auditorium  
**Chair – Bob Shepherd**  
Owen Keates, Hitachi Consulting |
| **Room B1** | Chair – Johan Schroder  
Christine Purdy, MLA |
| **Room B3** | Chair – Jeanne Seifort  
David Johnston, AGBU |
| **11.25am** | Panel discussion  
**The data dilemma**  
Ed Charmley (CSIRO)  
Don Menzies (CQU)  
Ben Dwyer (ACBH)  
Ben Hayes (QAAFI) |
| | Panel discussion  
**Animal welfare for tomorrow**  
David Smith (Ceres)  
Simon Kensit (AACo)  
Dana Campbell (CSIRO)  
Alan Tilbrook (QAAFI) |
| | Panel discussion  
**Improving breeder herd efficiency**  
Nick Sangster  
Tim Schatz (NTDPIR)  
Ian McLean (Bush AgriBusiness)  
Luis Prada e Silva (QAAFI) |

| 12.25pm | Lunch – Boulevard Auditorium Foyer |
### Session 8 – Boulevard Auditorium – Getting into gear for a carbon neutral northern beef industry

**Chair – Beverley Henry**

- **1.25pm** CN30 R&D update and opportunities for Northern Australia  
  *Doug McNicholl, MLA*

- **1.55pm** Opportunities to reduce emissions – How the ERF could assist  
  *Karen King, Department of the Environment and Energy*

- **2.25pm** Emissions reduction fund  
  *Geoff Murrell, Paraway*

- **3.00pm** Afternoon tea – Boulevard Auditorium Foyer

### Session 9 – Our industry, our R&D, our future

**Chair – Ed Charmley**

- **3.30pm** BeefLinks – a coordinated RD&E programme for WA beef  
  *Phil Vercoe, UWA*

- **3.45pm** Succession planning for future RDE&A,  
  *Maxine Whittaker, JCU*

- **4.00pm** New blood – new guns for the north,  
  *Alison Larard, DAF*

- **4.20pm** Awards and Farewells from NBRUC2019,  
  *Andrew Gray, NBRUC 2019 Conference Chair*

- **4.40pm** More from less – concluding remarks,  
  *Lee Fitzpatrick, NABRC Chair*

- **6.30pm** **NBRUC After Party**  
  Southbank Beer Garden, 30ba Stanley Street Plaza  
  **Theme:** Viva BrisVegas!
### Field trip 1 – ACC Cannon Hill operations and Felons Brewery

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<th>Time</th>
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<tbody>
<tr>
<td>7.30am</td>
<td>Depart Brisbane</td>
</tr>
<tr>
<td></td>
<td>Travel to ACC Operations 117 Colmslie Rd, Cannon Hill QLD</td>
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<tr>
<td>8.15am</td>
<td>Tea and Coffee on arrival</td>
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<tr>
<td>8.30am</td>
<td>Introductory to site and induction (allocate to groups)</td>
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<tr>
<td>9.00am – 11.30am</td>
<td>1) Overview of ACC Canon Hill operations and overview of production</td>
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<td>2) Tour of processing facility and packaging options for diverse markets</td>
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<td></td>
<td>3) Meat quality, food safety and the role of MSA in ensuring a quality product</td>
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<tr>
<td>12.00pm</td>
<td>Depart ACC Canon Hill</td>
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<tr>
<td>12.45pm</td>
<td>Arrive Felons Brewery New Farm</td>
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<tr>
<td>1.00pm – 3.00pm</td>
<td>Light lunch, beer tasting and tour of brewery</td>
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<tr>
<td>3.00pm</td>
<td>Participants are welcome to stay on at Felons for dinner and/or return to their accommodation independently</td>
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### Field trip 2 – ACC Opal Creek feedlot and The University of Queensland, Gatton campus

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<tr>
<td>6.30am</td>
<td>Depart Brisbane</td>
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<tr>
<td></td>
<td>Travel to Plainlands – light breakfast</td>
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<tr>
<td>8.30am</td>
<td>Toowoomba rest stop</td>
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<tr>
<td>09.45am</td>
<td>Arrive feedlot</td>
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<tr>
<td>10.00am</td>
<td>Introduction to site, induction and overview (allocate to groups)</td>
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<tr>
<td>10.30am – 12.30pm</td>
<td>1) Overview of feedlot and role of feedlot operations in maintaining supply into the value chain</td>
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<td>2) Tour of site facilities, pen operations, induction, feeding, stock management and dispatch</td>
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<td>3) Feed formulation and preparation – managing diet and environment for production gains</td>
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<tr>
<td>1.00pm</td>
<td>Lunch on site</td>
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<tr>
<td>2.00pm</td>
<td>Depart feedlot</td>
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<tr>
<td>3.30pm</td>
<td>Arrive UQ Gatton College</td>
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<td>1) Inspection of research facilities (Queensland Animal Science Precinct) and presentations on ongoing research</td>
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<td>2) Darbalara visit</td>
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<td>3) Sunset BBQ – Old Homestead building</td>
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<tr>
<td>6.00pm</td>
<td>Return to Brisbane (eta 8.00 pm)</td>
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