

**Programme: NZGA Conference  
5th-7th November 2019  
Napier Conference Centre**

**Tuesday 5 November 2019**

|              |                                                                                                                                            |                                                        |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| <b>7:30</b>  | <b>Registration Desk Opens</b>                                                                                                             |                                                        |
| <b>8:30</b>  | <b>Opening Session (Karakia)</b>                                                                                                           | <b>Ballroom</b>                                        |
| <b>8:40</b>  | Graham Kerr (NZGA President)                                                                                                               | Opening of Conference                                  |
| <b>8:45</b>  | Jeff Morton (LOC Chair)                                                                                                                    | Welcome and Health and Safety                          |
| <b>8:50</b>  | <b>Session 1: "Farming the Future"</b>                                                                                                     | <b>Ballroom</b>                                        |
| <b>8:55</b>  | Garth Eyles                                                                                                                                | Regional Overview - Farming in Hawke's Bay             |
| <b>9:10</b>  | Tom Skerman - HBRC                                                                                                                         | Meeting the environmental challenges of our region     |
| <b>9:25</b>  | Gerard Hickey - Firstlight                                                                                                                 | Value chain management in a food export business       |
| <b>9:40</b>  | Mellisa Clarke-Reynolds                                                                                                                    | The Vegans are Coming: New Business Models for Farming |
| <b>10:00</b> | Question time (panel)                                                                                                                      |                                                        |
| <b>10:20</b> | <b>Morning Tea</b>                                                                                                                         | <b>Catering Area</b>                                   |
| <b>10:50</b> | <b>Key Note Address</b>                                                                                                                    | <b>Ballroom</b>                                        |
| <b>10:55</b> | Damien O'Connor                                                                                                                            |                                                        |
| <b>11:20</b> | <b>Technologies for measuring pasture</b>                                                                                                  | <b>Ballroom (concurrent)</b>                           |
| <b>11:25</b> | Photogrammetry for assessment of pasture biomass (K Wigley)                                                                                |                                                        |
| <b>11:35</b> | Determining yield of forage crops using the Canopeo® mobile phone app (J Januregui et al)                                                  |                                                        |
| <b>11:45</b> | Preliminary investigation into the feasibility of combining satellite and GPS data to identify pasture growth and grazing (Woodward et al) |                                                        |
| <b>11:55</b> | Evaluation of LiDAR scanning for measurement of yield in perennial ryegrass (K Ghamkhar)                                                   |                                                        |
| <b>12:05</b> | Assessing the ability of a stationary pasture height sensing device to estimate pasture growth and biomass (C Eady)                        |                                                        |
| <b>12:15</b> | Question time (panel)                                                                                                                      |                                                        |
| <b>12:30</b> | <b>Field Trip: Patoka</b>                                                                                                                  | <b>Facilitator: Ian Milner</b>                         |
| <b>12:40</b> | Leave Conference Centre                                                                                                                    |                                                        |
| <b>13:55</b> | Arrive at Bluff Views (dairy/sheep and beef systems and technologies in a whole catchment study)                                           |                                                        |
| <b>15:45</b> | Leave Bluff Views                                                                                                                          |                                                        |
| <b>17:00</b> | Back at Conference Centre                                                                                                                  |                                                        |
| <b>18:00</b> | <b>Drinks and Food Buses Sponsor</b>                                                                                                       |                                                        |

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| <b>11:20</b> | <b>Dryland forages and performance</b>                                                                                             | <b>Exhibition Hall (concurrent)</b> |
| <b>11:25</b> | Relationships between sheep liveweight production and dry matter yield for lucerne-based pastures in spring (A Mills et al)        |                                     |
| <b>11:35</b> | Animal performance changes over 11 years after implementing a lucerne grazing system on Bog Roy Station (D Moot et al)             |                                     |
| <b>11:45</b> | The performance and profitability of plantain/clover pasture mixtures in East Coast farming systems (P Muir et al)                 |                                     |
| <b>11:55</b> | Evaluating the benefits of mixed plantain/chicory/clover pastures in a Hawke's Bay sheep breeding and finishing farm (J Spall)     |                                     |
| <b>12:05</b> | Maximising the subterranean clover content on a summer dry Wairarapa hill country farm through grazing management (S Olykan et al) |                                     |
| <b>12:15</b> | Question time (panel)                                                                                                              |                                     |

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| <b>11:20</b> | <b>Crop establishment and seed yield and quality</b>                                                               | <b>Breakout 2 (concurrent)</b>      |
| <b>11:25</b> | Yield and quality of whole crop faba beans harvested and ensiled at different maturities (J Kleinmans et al)       |                                     |
| <b>11:35</b> | Effects of seed treatments on the establishment of direct drilled rape in the presence of slugs (P Oliver et al)   |                                     |
| <b>11:45</b> | The effects of high temperature on pea ( <i>Pisum sativum</i> ) seed quality and associated traits (C Atung et al) |                                     |
| <b>11:55</b> | Effect of pinching and foliar sprays on seed yield of Dhaincha ( <i>Sesbania aculeata</i> ) (A Bhuker et al)       |                                     |
| <b>12:05</b> | Question time (panel)                                                                                              |                                     |
| <b>12:30</b> | <b>Field Trip: Bostocks, Plant &amp; Food and Landwise</b>                                                         | <b>Facilitator: Stephen Trolove</b> |
| <b>12:40</b> | Leave Conference Centre                                                                                            |                                     |
| <b>12:50</b> | Arrive at Bostocks                                                                                                 |                                     |
| <b>14:45</b> | Arrive at Plant and Food Research                                                                                  |                                     |
| <b>15:45</b> | Arrive at Landwise MicroFarm                                                                                       |                                     |

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Wednesday, 6 November 2019

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|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| <b>7:30 Registration Desk Opens (Entrance/Foyer)</b>                                               |                                                                                           |
| <b>8:30 Levy Oration Sponsor: NZGA</b>                                                             | <b>Ballroom Sponsor: NZGA</b>                                                             |
| Announced on the day                                                                               |                                                                                           |
| <b>9:00 Farmer papers</b>                                                                          | <b>Ballroom</b>                                                                           |
| <b>9:00</b> Patrick and Isabelle Crawshaw                                                          |                                                                                           |
| <b>9:15</b> Nick and Nicky Dawson                                                                  |                                                                                           |
| <b>9:30</b> Question time (panel)                                                                  |                                                                                           |
| <b>9:55 WORKSHOP 1 (Ballroom)</b>                                                                  | <b>WORKSHOP 2 (Exhibition Hall)</b>                                                       |
| Optimising animal performance: Session 1<br>Dirk Waldin, Paul Kenyon, Mike White                   | Alternate land use for sheep and beef: Session 1<br>Jacqui or Dan Cottrell, Richard Green |
| <b>10:30 Morning Tea</b>                                                                           | <b>Catering Area</b>                                                                      |
| <b>10:55 WORKSHOP 1 (Ballroom)</b>                                                                 | <b>WORKSHOP 2 (Exhibition Hall)</b>                                                       |
| Optimising animal performance: Session 2                                                           | Alternate land use for sheep and beef: Session 2                                          |
| <b>11:35 WORKSHOP 1 (Ballroom)</b>                                                                 | <b>WORKSHOP 2 (Exhibition Hall)</b>                                                       |
| Optimising animal performance: Session 3                                                           | Alternate land use for sheep and beef: Session 3                                          |
| <b>12:15 Field Trip: Kereru Station</b>                                                            | <b>Facilitator: Mark Harris</b>                                                           |
| <b>12:30</b> Leave the Conference Centre                                                           |                                                                                           |
| <b>13:30</b> Arrive at Kereru Station: Bull beef, legume and forage cropping and stream monitoring |                                                                                           |
| <b>15:30</b> Leave Kereru Station                                                                  |                                                                                           |
| <b>16:30</b> Back at Conference Centre                                                             |                                                                                           |
| <b>17:30 NZGA AGM</b>                                                                              | <b>Exhibition Hall</b>                                                                    |
| <b>19:00 Conference Dinner and Awards</b>                                                          | <b>Ballroom</b>                                                                           |

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| <b>9:55 WORKSHOP 3 (Breakout2)</b>                                                                    | <b>WORKSHOP 4 (Breakout 1)</b>                                                                 |
| Managing future animal health issues: Session 1<br>Michael Hindmarsh, Greg Tattersfield, Aaron Mickle | Precision fertiliser application for hills: Session 1<br>Doug McKenzie, Mike White, Tom Fraser |
| <b>10:30 Morning Tea</b>                                                                              | <b>Catering Area</b>                                                                           |
| <b>10:55 WORKSHOP 3 (Breakout 2)</b>                                                                  | <b>WORKSHOP 4 (Breakout 1)</b>                                                                 |
| Managing future animal health issues: Session 2                                                       | Precision fertiliser application for hills: Session 2                                          |
| <b>11:35 WORKSHOP 3 (Breakout 2)</b>                                                                  | <b>WORKSHOP 4 (Breakout 1)</b>                                                                 |
| Managing future animal health issues: Session 3                                                       | Precision fertiliser application for hills: Session 3                                          |
| <b>12:15 Field Trip: Brownrigg Agriculture</b>                                                        | <b>Facilitator: Paul Muir</b>                                                                  |
| <b>12:30</b> Leave the Conference Centre                                                              |                                                                                                |
| <b>13:00</b> Arrive at Brownrigg Agriculture: Waygu beef, crop production and lamb finishing          |                                                                                                |
| <b>16:00</b> Leave Brownrigg Agriculture                                                              |                                                                                                |
| <b>16:30</b> Back at Conference Centre                                                                |                                                                                                |
| <b>17:30 Agronomy AGM</b>                                                                             | <b>Breakout 2</b>                                                                              |

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**Thursday, 7 November 2019**

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**8:00 Registration Desk Opens (Entrance/Foyer)**

**8:30 Graham Kerr (Presidential Address) Ballroom**

**9:00 NZAGRC Speaker Ballroom Sponsor**  
 Mitigating greenhouse gas emissions from New Zealand pasture-based livestock farm systems

**9:30 Plantain in Dairy Systems Ballroom (concurrent)**

**9:35** Nitrification inhibition by urine from cattle consuming *Plantago lanceolata* (G Judson et al)  
**9:45** Meta-analyses comparing the nutritional composition of perennial ryegrass (*Lolium perenne*) and plantain (*Plantago lanceolata*) pastures (E Minnee et al)  
**9:55** A paddock survey of on-farm plantain use (M Dodd et al)

**10:05** Effectiveness of strategies used to establish plantain in existing pastures (R Bryant et al)

**10:15** Question time (panel)

**10:30 Morning Tea Catering Area**

**11:00 Nutrients Ballroom (concurrent)**

**11:05** A summary of the results from fertiliser and lime trials in the eastern region of the North Island (M Gray)  
**11:15** Modelling long-term changes in soil phosphorus and carbon under contrasting fertiliser and grazing management in New Zealand hill country (R Vibart)  
**11:25** The impact of possible changes to nitrogen loss regulations on the financial viability of dairy farms in the Upper Manawatu- River catchment (T Parminter)  
**11:35** The influence of spring grazing management on yield and water use of rainfed lucerne (R Sim et al)

**11:45** Question time (panel)

**12:05 Mixture Ballroom**

**12:10** Maximising the value of irrigation through improved use of soil resources and sensor technology (J Drewry et al)  
**12:20** Increasing biological nitrogen fixation by white clover-rhizobia symbiosis (S Shi)  
**12:30** Identifying the pasture potential for New Zealand dairy farms (M Neal et al)  
**12:40** Sampling methods for clover species in grazed pastures to diagnose mineral deficiencies (S Olykan)  
**12:50** Use of pasture botanical composition data to improve the accuracy of satellite pasture biomass estimates (G Anderson et al)  
**13:00** Question Time (panel)

**13:20 Close and invite to Invercargill Ballroom (New President/Chris Smith)**

**9:30 Biosecurity/Weeds/Pests Exhibition Hall (concurrent)**

**9:35** Barriers to IPM adoption for insect pests in New Zealand pastures (S Mansfield et al)  
**9:45** Farm systems analysis of two thistles of differing seasonal pasture growth impacts in North Island hill country (D Stevens et al)  
**9:55** Modelling the economic and environmental implications of reducing biosecurity risk by changing to a self-contained dairy grazing system in New Zealand (T Chikazhe)  
**10:05** An innovation systems approach to understanding the impacts of grass grub damage in irrigated Canterbury dairy pastures (S Zydenbos et al)

**10:15** Question time (panel)

**10:30 Morning Tea Catering Area**

**11:00 Genetics Exhibition Hall (concurrent)**

**11:05** Improving environmental benefits of white clover through condensed tannin expression (J Caradus et al)  
**11:15** Inclusion of persistence in the DairyNZ Forage Value Index (D Chapman et al)  
**11:25** Scaling issues in the interpretation of dry matter yield differences among perennial ryegrass (*Lolium perenne*) cultivars (D Chapman et al)  
**11:35** Beyond ruminants: discussing opportunities for alternative pasture uses in New Zealand (G Lucci et al)

**11:45** Question time (panel)

**9:00 NZAGRC Speaker Ballroom Sponsor**

Mitigating greenhouse gas emissions from New Zealand pasture-based livestock farm systems

**9:00 Crop production - nutrients and water Breakout 2 (concurrent)**

**9:35** Water stress responses of three potato cultivars (A Michel et al)  
**9:45** Effect of organic manures, fertilizers and their integrated combinations on seed quality parameters in wheat (S Virender et al)  
**9:55** Effect of rhizospheric and phyllospheric application of biofertilisers on growth and yield attributes of Kinnow mandarin (*C nobilis* x *C deliciosa*)  
**10:05** Integrated nutrient management improves growth and leaf nutrient status of guava cv. Hisar Surkha

**10:15** Question time (panel)

**10:30 Morning Tea**

**11:00 Crop production Past and Future Breakout 2 (concurrent)**

**11:05** A soil raster map of New Zealand based on the National Soils Database (NSD) (A Parshotam)  
**11:15** Future scenario of better New Zealand adapted hemp varieties (S Komahan)  
**11:25** New Zealand's poplars and willows- looking to the future (D McLean et al)  
**11:35** A review of taro research of significance to New Zealand (A Parshotam)  
**11:45** Question time (panel)