

NZ GRASSLAND ASSOCIATION

Fuelled by Science, Tempered by Experience

GRASSLAND NEWS

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President's Welcome

Warren King

Executive Office Contract Renewal

The NZGA Executive is pleased to announce that Marie Casey and Glenis Thomas will be re-contracted for the NZGA Executive Office until August 2021. They were the successful applicants in a competitive process.

As part of good governance, the NZGA Executive looks closely at all of the Association's expenses. Competitive bidding on a regular basis for contracts is part of this including, for example, printing of Journals as well as the Executive Office function. The Executive Office contract was advertised in October 2019 and a number of applications were received. A subcommittee of the Executive (including

the President) was convened and short-listed applicants interviewed. Marie and Glenis were the outstanding applicants.

The NZGA Executive is looking forward to building on the excellent relationship that Marie and Glenis have developed with the Executive - as well as with members and our stakeholders - soon to be 11 years on March 23 - to continue to support the NZGA in its mission. Congratulations Marie and Glenis!

Nga mihi,
Warren

From the Executive Office

As Harold Wilson once said - "a week is a long time in politics" - and pandemics - as our world has changed rapidly.

From discussing the potential impacts and the what if's only last week it turns out that reality is quite different and many of us face a four week lockdown. We learn new acronyms (WFH - working from home), video-conferencing using Zoom and Teams, who and what is deemed an essential service and have it highlighted to all that farming and food supply are important.

The executive are meeting next week and will be doing some long term strategic (pandemic) planning and will let you know the outcome in the next newsletter.

In the meantime now is a great time to catch up on all the NZGA papers that you have put in the 'must read that when I have time' category! **Follow us** on Twitter [@NZGrassland](https://twitter.com/NZGrassland) for the NZGA paper of the week.

Journal of NZGA

NZGA Journal Vol 80 and 81 are online [here](#) on a stand alone website. The past papers (Vol 79 and earlier) can still be found on our website [here](#). We are in the process of migrating all papers to the new site and will let you know when that happens.

Miss the Napier Conference?

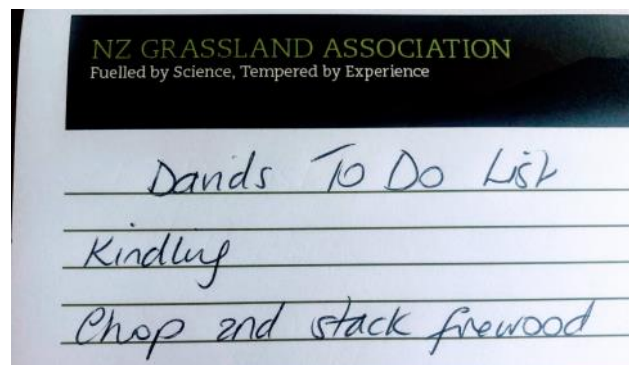
The videos of keynote speakers from the Napier conference

are online [here](#) on the Grassland YouTube Channel plus all our older videos.

Invoicing and overdue membership

The financial end of year for the Association is drawing near so we are trying to tidy up outstanding accounts. Currently there is approximately **\$16,000** in membership dues outstanding. Our shift to using XERO has been very successful but we are aware that some of our invoices to members may have been overlooked or sent into spam folders. Please check and pay your arrears before next years invoices are sent out. NZGA membership can be paid online [here](#).

In the meantime I have found a use for a conference notepad! - *Kia kaha Marie*



NZGA for over 80 years

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In memory of Nelson Cullen

Nelson Cullen was a Life member of the NZGA and he passed away recently in Hamilton at the age of 92.

The following was supplied by Nelson himself so thanks to Gary Orbell, Deric Charlton and Doug Edmeades for making sure we have it to publish.

Nelson Cullen was born in 1927 and brought up on a farm at Clarendon near Milton. After being educated at Tokomairiro District High School and Otago Boys High School he studied agriculture at Lincoln College and graduated in 1950. In the same year he was appointed Pasture Research Officer at the new Invermay Research Station near Dunedin.

His research over the next 16 years was concerned with fertilisers, trace elements and pasture studies, particularly establishment, seed mixtures and management. His major research contributions were:

1. The discovery and highlighting of molybdenum responses in pasture. He found 2.5 ounces of sodium molybdate every five years gave large clover and pasture responses equivalent to 3 tons lime.

These findings had huge implications on the vast areas of browntop country particularly in the South Island enabling successful large-scale conversion to ryegrass/clover pastures with greatly increased sheep carrying capacity.

2. Use of ground rock phosphate as a fertiliser

A trial at Invermay, laid down in 1951, compared various forms of phosphatic fertilisers included ground North African Gafsa phosphate. Under slightly acid conditions this phosphate gave similar yields to superphosphate for three years and subsequently outperformed super when used without lime or with low rates of lime.

This trial provided some of the best evidence for widespread industry and farmer use of ground North African rock phosphates in recent years.

3. Pasture seeding mixtures and suppression effects of ryegrass.

Research indicated sowing high rates of ryegrass greatly suppressed the establishment and production of component grasses such as cocksfoot, and clovers which were suppressed in the first year but recovered in later years. This research indicated that high seeding rates of ryegrass should be sown with clovers only, to suppress weeds and provide more early pasture growth but the seeding rate should be drastically reduced if component grasses or herbs are included.



4. Establishment of grasses and clovers on unploughable hill country.

Factors studied included time of sowing, effects of lime and fertiliser, use of paraquat and effect of grazing. Failure of grasses to establish was largely due to competition from existing vegetation. On dense swards reducing this competition by paraquat or close grazing greatly improved establishment. Phosphate and nitrogen fertiliser had little effect on grass establishment but phosphate aided clover survival and lime aided grass survival on some soils.

5. Pasture establishment trials on Te Anau soils.

A major series of pasture establishment and fertiliser trials was conducted on Te Anau brown loam soils over a 5-year period following establishment failure of large-scale Lands and Survey pasture sowings.

The main reason for failure was absence of clovers due to lack of clover inoculation. Other contributing factors were the very low phosphate and nitrogen status of these morainic soils necessitating the use of high rates of phosphate.

In 1966 he was appointed Director (of Invermay) which involved the oversight of animal, pasture, crop, fertiliser and soil research at Invermay and Tara Hills Research stations and administrative oversight of the Woodlands outstation. Over the next nine years he was largely responsible for developing regional programmes and building up a high calibre scientific staff which included 20 scientists.

In 1975 he was appointed Director of the Soil and Plant Station at Ruakura, Hamilton which had a staff of over 180 including 50 scientists. His responsibilities involved the direction of plant, soil and fertiliser research which included soil testing, soil chemistry, fertilisers, pastures, crops, weed control, horticulture, viticulture, entomology and aquatic plants as well as the oversight of Pukekohe and Gisborne sub stations.

His main achievements at Ruakura were recruitment of high calibre staff, establishing horticulture research, establishing new facilities for entomology, horticulture and aquatic plant research and facilitating farmer/scientist liaison and publication and dissemination of research findings.

During his scientific career he published 50 scientific papers and was a prolific contributor to NZ and International Grassland conferences. In recognition of his contribution to grassland research he was made a Life Member of the NZ Grassland Association and a Fellow of the Institute of Agricultural Science. He made a major contribution to NZ agriculture through a wide range of pasture research outlined above.

The following comments from Deric Charlton highlight Nelson's impact on and long running interest in agricultural research.

"He was really the force behind the development of Invermay in the early 1960s and did some excellent

research to develop the Lands & Surveys blocks at Te Anau then. He was eventually the Plants and Soils Director at Ruakura, and lived in Hamilton in his retirement. He enjoyed golf and wrote a monthly column on it in The Waikato Times. He also remained active on Facebook and in recent years we corresponded in that way regularly!

You could add that at NZGA Conferences he was a wise head, except that he liked to accuse the current researchers of reinventing the wheel, when we were just carrying on past research to advance the more useful practices a bit further. “



From the Editor

Thanks to all authors who submitted paper offers for Vol 82 of the *Journal of New Zealand Grasslands*. Authors of accepted offers now have until **11 May 2020** to submit their completed manuscripts.

Each offer was categorised as a Research Article, Literature Review, Perspective or Agricultural Practice paper and authors have been sent a manuscript template tailored to each category. Referees will also receive a review form customised for each category to ensure the review process is appropriate for the type of work being presented.

Good news - the credibility and visibility of the Journal have

both been boosted with the inclusion of the contents of Vol 81 in an international online-indexing system called Scopus. Scopus is the world's largest abstract and citation database of peer-reviewed literature and is the preferred source of such information for many researchers.

Thanks to everyone who has helped with the 14-month preparation and application process. This milestone is just the beginning as we intend to get the content of all the back issues loaded on the Journal's website and in Scopus over the next few months.

Technology—Agronomy Field day Napier

The Agronomy Field Day in Napier included this visit to the Landwise MicroFarm on the Heretaunga Plains, where the focus is exploring cropping with a systems perspective.

For more information on what they are up to go to their website <https://www.landwise.org.nz/microfarm/>.

