

NZ GRASSLAND ASSOCIATION

Fuelled by Science, Tempered by Experience

GRASSLAND NEWS

www.grassland.org.nz

Aug 2023

ISSN 1179-4216

This latest newsletter has three articles from members who attended the International Grassland Congress. For Matt, it was his first IGC whereas Pat Garden has attended several of these events. It is great to see the different perspectives from the conference - much of it focussing on the farms they visited and the difference from NZ agricultural sys-

tems. Maybe some of you may take the opportunity to attend the next International Grasslands or the Rangeland Congress.

Many members asked if Dave Chapmans Ray Brougham was being recorded - the link is at the end of the newsletter.

Southern USA pre-congress tour

Dr Mike Dodd, NZGA executive

Our tour was ably hosted and well organised by Lisa Baxter, an assistant professor at the University of Georgia, Tifton Campus and an extension agronomist for Georgia State. Our tour group included only 10 participants, my travelling mates originating from Brazil, Germany, South Africa and China. We travelled through seven states over 6 days: from Orlando Florida through Georgia, South Carolina, North Carolina, Tennessee and Virginia to end in Covington, Kentucky.

The tour began with a visit to Deseret Farms, 300 000 acres of rather damp land southeast of Orlando with 65 000 head of cattle in a Brangus cow-calf operation owned by the Mormon Church. The block is divided into 15 largely self-contained units with individual unit managers and a corporate management staff that included two full-time agronomists. Pastures in this very warm-wet environment are of poor quality by our standards, being dominated by Bahia grass (*Paspalum notatum*) and Limpo grass (*Hemarthria altissima*) with numerous volunteer species and little legume content. Discussion indicated that white clover was historically abundant, but this had declined due to reductions in lime use on low pH soils and regular herbicide use. Perennial peanut (*Arachis glabrata*), having a similar environmental range to Bahia grass, seems to be the main forage legume used in this region.

The next site was the Alapaha farm, a University of Georgia Experimental Station, where the main forage grass of interest was Bermuda grass (*Cynodon dactylon*), although Andy Dunn had also established some Bermuda grass + white clover + red clover swards to good effect in terms of animal growth rates in cow-calf systems. Bermuda grass has under-

gone much breeding effort between UGA in collaboration with Bill Andersen of USDA-ARS, with a strong focus on improving cold tolerance. There are a range of cultivars with varying tolerance: Tifton85 and Coastcross2 (low tolerance); Alesha and Coastal (medium tolerance); Russel and Tifton44 (high tolerance). This is of great interest as climate change is moving the subtropical zone northward and inland and this germplasm will be increasingly relevant to farmers in N Carolina & Tennessee. This germplasm will be relevant to the interests of northern NZ farmers. We also visited the UGA Tifton campus where Jennifer Tucker is including alfalfa in Bermuda grass stands (and where annual ryegrass is a strong volunteer species) for farmlet studies with beef cattle. The main pest issues to be aware of with Bermuda grass are a stem maggot (*Atherigona reversura*) that prefers moist climates and fall army worm (*Spodoptera frugiperda* – a recent invader in NZ).

We visited the Sunbelt Ag Expo site in Moultrie, GA – somewhat equivalent to Mystery Creek, which the director Chip Blalock had visited. The location is an abandoned air force base from the 1950s, which presents a useful combination of large field areas for crop demonstrations and research and a working runway for visitors. The crop demonstration areas were mainly devoted to corn and cotton but included large Bermuda grass plots of the various cultivars being used for forage research.

In Ridge Spring, South Carolina we visited Yon Family Farms, an award-winning multi-generational Angus Stud with a side venture in Pecan nuts (including a local retail outlet). Here the pastures were based on tall fescue and annual ryegrass. While there have been major issues with the tra-



NZGA for over 80 years

SPONSORED BY AGRESEARCH

ditional Kentucky31 wild-type toxic endophyte fescue, and successful development of the alternative safe endophyte, it seems farmers are slow to adopt this due to perceptions of poor persistence and the need for longer summer spelling of pastures. From a legume perspective, crimson clover (*Trifolium incarnatum*) appears to be a popular choice further north.

Next was the Simpson Research Centre near Pendleton SC, part of the Piedmont research network of Clemson University that includes a Suffolk/Texel sheep research unit, an agronomy unit focussed on conserved feed research and provision for other research farms and a cattle feed efficiency unit that included Calan Gate and C-Lock facilities and a GrowSafe bull testing facility.

In North Carolina we visited the Biltmore Estate, the historic mansion of the Vanderbilt Family, which has associated farm, horticulture and forestry operations supplying produce to the two hotels and various tourist ventures on the Estate. They have a vision to be completely autonomous in terms of food and energy and have a small agri-voltaics installation on site.

IGC 2023 REPORT

Being a sheep, beef & dairy farmer - which are grass harvesting systems - I was looking forward to what I could learn at the IGC. I am fortunate to have been selected as a 2023 Nuffield Scholar; scholars are encouraged to engage in industry conferences.

I travelled with a work colleague, Nick Murdoch, we started with the Pre-Congress Tour. This was a week of travel and visits across the states of Texas and Oklahoma. Both Texas and Oklahoma are vast states with extensive grassland grazing systems, often a mixture of dry and arid country.

We met some really interesting people running some fascinating businesses. I was particularly interested in the combination of warm season C4 grasses and cool season annual ryegrasses being utilised together. This was a feature in the Great Plains, and significant in the success of the grazing systems.

The highlights were many, but I especially enjoyed the conversations, laughs and debates we held on the bus amongst our fellow travellers, and especially with the excellent hosts that joined us on our visits, many of whom were members of the Extension Service of Texas A&M.

Our little bus was galvanised as a band of brother's when we passed through a Tornado driving to Oklahoma City - a frightening experience!

The Extension Service within the Land Grant Universities of the USA is something we could learn so much from - along with the support for school age kids in the 4H program, these were both so impressive. Their collaborative optimism, positivity, and celebration of success is something we have lost in Agriculture in NZ.

Arriving in Kentucky for the Congress with 600 other participants we were again shown great hospitality along with

In Kentucky we visited Berea College, a liberal arts university of about 1200 students with an alternative education model. The focus is on giving underprivileged youth a quality tertiary education and so students' families are means tested to ensure they are under a wealth cap. Instead of tuition fees, students work on campus (cafeteria, janitorial, administration, the university farm and in the farm store). It should be noted that the system is also underwritten by a very large endowment fund. In terms of the University farm, Bob Harned has a wide range of forages in use, including Eastern gamagrass (*Tripsacum dactyloides*), Johnson grass (*Sorghum halepense*), Kentucky bluegrass (*Poa pratensis*), Orchard grass (*Dactylis glomerata*), tall fescue and crimson clover.

Though admittedly of little agronomic interest, the story would not be complete without a mention of the "recreational" component, specifically the opportunity to paddle a two-person canoe through the alligator-infested Okefenokee Swamp in Georgia. Fortunately, livestock feed demand was nil, at least on that particular day.

Matt Iremonger, NZGA farmer member

collegiality from people from across the world, who I think were all happy to be meeting and interacting again after the constraint of the covid years.

A mid-Congress Tour that visited a range of Kentucky producers was excellent - especially a visit to Todd Clarks farm who often features as a correspondent on The Country with Jamie McKay on NZ radio.

The continual negative commentary we have in this country around ruminant farming seems oppressive at times. So, it was a relief to hear from some of the smart people and see the technical work they are undertaking in this space from across the globe.

Using science-based assessment of the environmental, societal, and economic impacts of the opportunity and the essential role ruminant animal agriculture has in sustainable food systems. However, what was apparent is we need a fresh perspective and approach toward communicating this information to the wider community.

I am very grateful for the support of the NZ Grasslands Association to assist with some of the cost of the conference. I also encourage other members to attend future Congress and also the upcoming 2025 International Rangeland Congress in Adelaide.

Nick Murdoch, from NZ, with Chuck Coffey looking at the impressive windmills at his ranch on the Great Plains in Oklahoma. I'll let you guess which one Nick is.



There were two parts to my involvement with the IGC in Kentucky – the pre-Congress tour and the Congress itself.

The Central Grassland Tour

The IGC offered a number of pre-Congress tours but the response was so poor some had to be cancelled. The Central Grassland Tour through Texas and Oklahoma had 11 participants, 7 Chinese, 3 Kiwis and one German, comfortably transported in a van rather than a bus!

It started in Corpus Christi, Texas and headed down to Kingsville in South Texas, the headquarters of the King Ranch. KR has a fascinating history beginning in 1852 with a shrewd young Irishman Richard King wheeling and dealing his way into the ownership of a sprawling empire of 1.2 million acres. Nowadays, the King Ranch is a huge corporate with holdings across the world.

The intriguing aspect for the three Kiwis especially, was the management of the vast shrubby grazing lands to provide habitat for the highly prized wildlife – particularly whitetail deer, bobwhite quail and turkeys, as well as grazing for their cattle. The sale of hunting leases for those three species of game provided a greater revenue than did their 35,000 cattle. The challenge was to provide nesting habitat and food sources for the quail and turkeys, scattered cover for the deer and at the same time, good grazing for cattle.

Some chemical spraying was used but the main tool was prescribed burning. This was used to control the rank aftermath of C4 (tropical) grasses and an invasive and prolific shrub species called mesquite. The science and technology around the practice was most impressive - planning, mapping, plant species reactions, suitable temperatures, timing etc. Academic qualifications in prescribed burning are a necessary prerequisite for rangeland management wherever extensive shrubby ecosystems compete with grazing.

As we travelled up through Texas and into Oklahoma, visiting properties, ranchers and their families, we were escorted by field extension officers attached to the universities - Texas A&M, Oklahoma State, and subsequently Purdue University in Indiana. We Kiwis were so impressed with the agriculture science system! The land grant funding from each State to their respective Universities provided for a range of research from applied through to fundamental with a highly qualified team of field extension officers working directly with ranchers. But on top of that the US Department of Agriculture is also heavily invested in agriculture and we were fortunate to visit a very impressive research station in Fort Reno, Oklahoma, with a wide ranging portfolio. From the top down, there was a clear strategy which spoke to the importance of the agriculture industry to the

US economy. The comparison with our agriculture research system here in NZ was stark - you will perhaps understand why we were so envious!

Out on the Oklahoma prairie we came across another variation in prescribed burning. The huge temperature range between summer and winter requires a dual grass species system. Ryegrasses and fescues during the cool season and tropical grasses such as Bahia or Bermuda grass for the very hot and dry warm season. Rank aftermath covers often result. To maintain even grazing, the preferred grazing patterns of cattle fitted with GPS collars were mapped throughout the grazing season. This enabled a patch-burning programme to be put in place for the rank areas being avoided by the cattle. In parallel with this the scattered scrub species which provided lookout roosting sites for predatory falcons were also being controlled. This encouraged a highly valued species of quail to nest as they would only do so in a landscape devoid of any lookouts!

Available water across a huge swathe of Texas and Oklahoma is a growing concern with aquifers and rivers shrinking. So far it doesn't seem to be slowing down the exodus of people flocking to the area around San Antonio and Austin with population growth between 2016 and 2020 rising by 16% and land values skyrocketing.

Along the way, oil wealth readily apparent, philanthropic foundations a common feature, and to keep us on our toes, a rattlesnake or two, a tornado crossing our path, or an ardent advocate for the right to purchase an automatic assault weapon... but a wonderful week spent absorbing the lessons of a vast landscape with its energetic, ambitious, hospitable and very patriotic people.



David Stevens, Pat Garden and Serkan Ates (Oregon State University) catch up

Ray Brougham Lecture Series 2023

In 2023 the NZ Grassland Trust awarded the Ray Brougham Trophy to Dr David Chapman for his Leadership, knowledge, and an astute ability to communicate pertinent research on ryegrass-white clover ecology, physiology, productive performance, persistence, nutrient cycling, and genetic improvement to the benefit of New Zealand dairy and sheep/beef farming systems.

This lecture is now available on the NZ Grassland YouTube channel:

[Pasture Productivity - are we gaining?](#)

A quick reminder that our [YouTube channel](#) is building up a large number of videos, covering a wide range of topics. There are currently 88 videos - key note speakers, Levy orations, Ray Brougham award winners, NZGA presidents musings...

A highlight from the Invercargill conference was the talk given by Tangiroa Walker, Farm4Life. This hub provides edu-

cation for young dairy staff (or edutainment) designed to appeal and educate. <https://www.farm4life.co.nz/>. Don't know where to start? Check out the [key note speakers](#) from Invercargill.

Don't want to watch - turn the screen off and call it a podcast making it great for long trips, plane flights, hours on the tractor - you decide.

Don't want to watch - turn the screen off and call it a podcast making it great for long trips, plane flights, hours on the tractor - you decide.

Don't want to watch - turn the screen off and call it a podcast making it great for long trips, plane flights, hours on the tractor - you decide.

Women in Farming and Agriculture Scholarship

Attention women in the farming and agriculture sector! You have an amazing opportunity to secure a partial scholarship worth \$1,000 - \$5,000 from Women & Leadership New Zealand. This scholarship opens doors to four exceptional leadership and workplace skill development courses specifically designed for you. Don't miss out on this chance to take your career to new heights!

womenandleadership.co.nz/farmingagriculture

Apply by 15 September 2023



NZGA Admin Update

Membership Invoicing

The new financial year has started and the invoices have been sent to members. Please check your inbox or junk/spam folder if you haven't seen it. Prompt payment saves us so much effort from chasing everyone up. The fastest payment this year was within about 5 minutes of us invoicing (all the way from China) so Cory deserves a virtual chocolate fish!

The executive are always keen for new members to join the Association and word of mouth from current members can be the most effective way. SO tap some workmates who you think should be members - there are lots of them out there who aren't yet - and encourage them to join as members and attend their first conference.

Rotorua 2023

"The land, the lakes, the people. This is Rotorua"

The Local organisers are working hard to bring this event to members. The programme and field days are starting to

take shape and we will share that with you soon. Registration will also open in the next few weeks so **Mark the Date** and book your travel and accommodation.

Discount for accommodation is available so check the details on the [website](#).

JNZG Vol 84 2022

The print copy of this Journal has been posted out to members along with the R&P 8: Pasture and Forage Plants of NZ (5th ed) for those who hadn't received it yet.

If you don't receive a copy in the next week or so, or missed out on R&P 8 please let us know. It has been a rush to meet the end of June deadline before postal charges increased significantly! These publications are much more valuable to our members than stored in my garage.

Feel free to contact [me](#) if you wish to do a bulk purchase of R&P 8 for team members, farm staff or family as I can offer a discount.