

# CHAPTER FOUR

## THE RESEARCHERS

The enthusiasm of Cockayne and Levy, the graduation of the first crop of agricultural students from Massey College, the proximity of the Plant Research Bureau to Massey and the visit of British pasture pioneers Sir George Stapledon and William Davies – all these ingredients came together to establish NZGA as an industry thought tank.

After the Second World War the post-war boom had grassland farming in the forefront and researchers were a major catalyst in developing New Zealand's thriving pastoral industries. Research groups developed at different centres, studying soil fertility, pasture growth and management under different livestock types and in varying environments. It was all practical research to benefit farming, be it pastoral, arable, horticulture or forestry. Special aspects, however, such as developing new varieties, was restricted to government departments until the early 1980s.

The 1950s, 1960s and 1970s saw this country's reputation riding high in the global scene. The large overseas attendance at the 1956 and 1993 International Grassland Congresses, held mainly in Palmerston North, reflected this immense reputation.

However, the advent of the user-pays policy in the mid-1980s blurred the situation and began moving the focus of research towards “gee-whiz” phenomena – genetic engineering, genomics, rumen manipulation, climate change research and farming through computers. The more practical livestock management systems - controlled grazing, soil fertility advances and breeding new pasture species and fodder plants - took a back seat.

During the golden years of applied research to resolve on-farm problems and create novel farming tools, there were individual researchers who stood out as well as research teams and regional research groups.

I calling them all researchers, rather than divide them into scientists, technicians and field hands, because all these classes were involved in the research effort – not just the “bosses”. The achievements would never have been attained were it not for all the “engine parts” working together to produce the “high-performance engine”.

### Early Research

The Department of Agriculture established the Plant Research Bureau in Palmerston North, very near the quickly developing Massey College. It evolved into the DSIR's Grasslands Division in the mid-1930s and recruited some of Massey College's first agricultural graduates.

The first crop of degree students included Dr CP McMeekan, developer of the Ruakura Animal Research Centre in Hamilton, and Professor M McG (Mac) Cooper who became a legend in Britain.

Among the first graduates who had pursued the first part of their degrees at other university colleges were people who specialised in pastures, such as Lionel Corkill and Eddie Suckling. Other early researchers like Peter Sears, came into the new venture through other pathways. McMeekan went to the growing Lincoln College, fell into conflict with his chief and moved north to establish the animal research station that the World knew as Ruakura.

Mac Cooper moved to Britain, developed a high reputation and a thriving agricultural department at Wye College, part of London University, before moving north to Durham University as Dean of Agriculture at Kings College in Newcastle-upon-Tyne. There he stirred up the research that had become rather hooked onto the past, including the 60-year-old Treefield Experiment that revealed the impact of fertiliser on old land, hay and pasture, and ploughed up areas. He also crossed the purebred “Royal” Jersey herd with Friesian bulls to develop more productive dairying, and produced graduates with enthusiasm and initiative.

Back in New Zealand the early grasslanders who started NZGA formed their own groups to investigate pasture problems that enabled farming to recover after the Great Depression. Palmerston North and Lincoln became the major research hubs, with Hamilton emerging as the century progressed.

In the 1940s, the Department of Agriculture developed a network of research areas across the country and Bruce Levy established regional DSIR Grasslands research stations in Gore, Lincoln and Kaikohe focusing on cool-temperate, dryland and warm-temperate grassland regions.

## **Before World War Two**

In August 1931, at the first NZGA meeting/conference, 28 people heard seven papers, five of them on soil fertility and fertiliser use; one on grazing management and one from Bruce Levy on the strains of pasture plants he had been studying with Dr William Davies of the Welsh Plant Breeding Station.

The second conference almost didn't happen, but finally went ahead two years later - in August 1933 at Canterbury College (later Lincoln College/University). The programme comprised 22 papers covering a much broader range of subjects. Being in Canterbury the burgeoning pasture seed industry featured prominently, with problems of marketing farm produce also featuring in light of the Depression affecting global trade.

George Holmes, who later established Invermay, discussed regional problems in Otago-Southland and Levy again reported on developing strains of the major pasture species.

Most of the research was undertaken by the Department of Agriculture and the college staff, with some company staff contributing. The first paper by a farmer was given by Waikato dairy farmer, Alan Candy, whose name was later added to the Grassland Memorial Trust's list of honoured grasslanders.

In successive years, as the country gradually recovered from the Depression, more people realised the value of information being presented at the conferences, and the number of papers rose to over 30 at each event. The peripatetic location of the meetings developed into North Island one year and the South Island the following year.

The looming conflict may well have been the reason that in 1938 only 12 papers featured at the Hamilton Conference. Those presenting information tended to be partly the previous authors, and those becoming leading figures in the developing colleges and research stations. The threat of another war also had its effect and NZGA had to go into recess until 1946.

## **Recovery after War**

It took a few years for NZGA to rebuild impetus after World War Two, as the existing researchers had been employed in other projects to aid the military effort, and some even went to Britain to assist in pasture-related efforts there. Those who had fought in the armed services were given places at universities to gain qualifications for employment, and some became researchers at the new and existing centres across the country.

The research effort expanded in the years following the war and NZGA membership followed the trend.

Only nine papers featured at the 1947 Annual Conference in Palmerston North and these were general updates and reviews in nature. The 1948 Meeting likewise updated members on South Island trends, including Secretary-Treasurer RP Connell on trends in agriculture in Canterbury since 1931. He had moved from Grasslands in Palmerston North to be field superintendent in the Department of Agriculture in Christchurch. The 1948 meeting had the lowest number of presentations at any NZGA conference - only eight.

At Rotorua in 1949, 23 papers were given and the topics were now broad-based, giving trends and results from across the country. The researchers presenting the papers were a mixture of new faces and existing scientists who had resumed their pre-war projects. Established names like Corkill, Suckling, Iversen, Bevin, Lynch and McNeur were featured at this conference and would become familiar presenters over the following decades.

## Research teams formed

The early researchers soon attracted others around them and teams began to form in the centres like Grasslands where Levy, Corkill and Sears formed groups to focus on particular subjects.

Levy was the plant collector and ecologist. He used people like Les Gorman to measure and classify his clover and grass collections, and then employed Corky to breed the varieties. He supervised Eddie Suckling in hill pasture studies and set up Te Awa for hill country and catchment research.

**Lionel Corkill** was New Zealand's first pasture geneticist and plant breeder. He made a huge contribution, not only to pasture plant breeding during his time as DSIR's Grasslands Division chief breeder and director, but also as director of DSIR's Crop Research Division for over a decade.

Corky had the ability to inspire loyalty, dedication and enthusiasm among his staff, and as a result he developed a fine *esprit du corps* in his team, which at times led to some memorable, though for some, not so well remembered social activities.

He was supportive and encouraging to them, yet modest about his own efforts. Corky was the first Massey student to earn an MAgSc (1931). He studied ryegrass genetics at Massey for four more years before joining Grasslands Division as an assistant agrostologist. He then spent a year in Australia with CSIRO, returning in 1937 to Grasslands Division, as its chief plant breeder.

Corky worked for the next two decades at Grasslands and built up a first-rate group of skilled and experienced plant breeders and research assistants.

He led from the front and bred the first commercially released hybrid ryegrass, a cross between perennial and annual ryegrass, known initially as *HI* and named *Grasslands Manawa* in 1964. First certified in 1943, this grass was the world's first "short rotation" ryegrass, lasting between three and four years in a pasture. Corky also developed breeding programmes for cocksfoot, timothy, red and white clovers.

When Peter Sears died suddenly in 1963, Lionel Corkill returned to Grasslands in Palmerston North as its director until retiring in 1971. During his years as director Corky expanded and consolidated staff numbers and research facilities, developing regional stations. The Kaikohe Station in Northland quadrupled its size in 1969, and the Gore station area increased nine-fold.

He organised the purchase of Ballantrae, the hill country station near Woodville in 1966, and the Aorangi block in Kairanga in 1967. This led to a big increase in grassland research from the initial 4ha Tiritea Block acquired in 1928 from Massey College as a Plant Research Station, the predecessor of Grasslands Division.

Corky served as President of NZGA in the late 1950s and was elected an honorary Life Member in 1969. He served and shaped the Grassland Memorial Trust and led the NZ delegation to International Grasslands Congresses in the USA (1952), Brazil (1965) and Australia (1970). Corky was also a Life Member of the NZ Turf Culture Institute.

**Peter Sears** was born in England in 1914 but educated in New Zealand at Wellington College and later at Victoria and Canterbury University Colleges. He entered government service as a cadet in the Government Life Insurance Office in 1930, but then transferred to the Department of Agriculture and moved to DSIR's Grasslands Division when it formed in 1936. There he specialised in pasture ecology and gained a DSc in this field.

Sears contributed significantly to shaping the future of grassland research. However, he wasn't highly regarded by his staff as director over eight years. Sears and Corkill both applied for the position of director after Jim Melville left for Australia. Corkill was popular among his colleagues but lacked the contacts within the DSIR hierarchy, but was nevertheless appointed, whereon Sears objected and was appointed instead.

"Sears, however, lacked the agricultural background," commented Eddie Suckling in an interview I recorded in 1992, "and it showed. When he went out to field days and farmer meetings he always needed technical support, and you never knew when he was serious or joking. Farmers would be uncertain about his views until he laughed, indicating he was joking."

In Suckling's opinion, Sears lacked the extensive experience of Corkill, though the duo formed an effective team in international consultancies in Japan and several other countries, developing high reputations.

Work-wise, Sears collaborated with the Dairy Research Institute in resolving problems of feed flavours in cream and butter. He also studied facial eczema in grazing livestock, but contributed most notably in pasture production and utilisation.

In the late 1950s, Peter Sears focused on economic and social aspects of agriculture, where his qualifications in science and economics helped him to campaign for a better environment for the agricultural industries. Sears felt that agriculture was the key to New Zealand's economic future and his efforts stimulated a national interest in reorganising the financial background for the primary industries at the time.

Peter Sears' sudden death stimulated his colleagues to establish a Memorial Trust during 1963, honouring prominent names, including Sears.

## Developing the Hills

**Eddie Suckling** forgot more about hill country farming than most people had ever learned. He was appointed to DSIR Grasslands in 1936 not long after Peter Sears had transferred from the Government Life organisation. Initially, Suckling worked on the effects of herbage species on milk flavours. He became acquainted with Peter Sears and taught Sears grass and clover identification.

In the late 1930s Eddie Suckling joined two 1937 recruits – Jim Lambert and Lofty Harris – in a survey of pastures and cocksfoot seed-growing areas on Banks Peninsula, as requested by the Chamber of Commerce. Levy went overseas on tours, leaving another researcher, Ernie Madden, to run the division.



*Eddie Suckling*

In 1939 a well-used refrigerator in the Grasslands building malfunctioned and started a blaze. The building was burned down and much data were lost.

Eddie Suckling began hill country research in 1944 when the Manawatū Catchment Board was formed. Bruce Levy chaired a research committee to study soil conservation in North Island hill country and leased 180ha near KIWITEA called Te Awa.

He appointed Suckling as officer-in-charge of the research area and the technicians they employed developed soil conservation and hill pasture farming guidelines over 15 years. But a hill country research group wasn't developed until the early 1970s when Ray Brougham took action, as the NZ Government was keen to develop livestock production on marginal lands. Under Lionel Corkill, the Ballantrae farm was bought and Suckling, then David Grant, began research specifically for improving the vast hill areas of the southern North Island.

### **New Research Centres**

In the meantime, other groups were forming at Grasslands, Ruakura and near Dunedin, the former airport at Invermay was being changed by George Holmes into a southern research centre.

However, George was in the Fields Division of the Department of Agriculture and by 1954 he was only supervising five scientists, Invermay was regarded primarily as a field station.

A year later Robin Scott joined the team and took over the fertiliser research that had struggled. He began a large-scale grazing experiment and several topdressing trials. Then in 1959 Ken Drew was appointed to run animal nutrition, followed in the 1960s when Jock Allison began reproductive physiology. Nelson Cullen went on to develop

animal, soil and pasture groups.

CP McMeekan also developed research groups at Ruakura, backed by a thriving dairy industry. Under his leadership the station became an internationally renowned research centre. In the 1990s the Dairying Research Corporation was split off to become Dexcel and now DairyNZ, with its own strong research team. The remainder, however, was downsized by AgResearch and is now only a presence on the site, which was handed to the Tainui iwi in a government restitution agreement.

In the post-war era the Department of Agriculture had established many smaller regional stations that accommodated a miscellany of divisions, including research. In 1987, MAFTech was formed and though many of these stations gradually vanished, research thrived.

## **Conflict of Results**

At the 1951 NZGA Grassland Conference in New Plymouth, Grasslands researcher Ernie Madden gave a paper on timing surface sowing of legumes in southern North Island hill pastures. He reported that all his sowings were failures and that it wasn't worthwhile oversowing clovers.

Unfortunately, the next paper in the session was presented by Eddie Suckling, also on oversowing legumes into hill country. Eddie had found that oversowing in autumn was much more successful than spring sowings at all the five sites he had used in southern North Island hill pastures! Neither had an inkling that the other was working on this topic, so the conference attenders had found this quite hilarious!

However, this caused all sorts of strife back at Grasslands, and after this, conference presentations had to be reported in advance to the director to prevent further embarrassment.

In any case, Bruce Levy would not allow Suckling to publish the findings from just one trial - he had to wait until he had completed up to ten trials, and then he was allowed to write the overall trends and conclusions.

Suckling's research greatly enhanced his reputation internationally, and he enjoyed several tours and was seconded in South America for over a year. It was during his time overseas that the Ballantrae Research Station was purchased.

When Eddie returned from overseas, he was disgusted by the Ballantrae sheep and complained bitterly to Corky but to no avail, as the deed had been done. So he mentioned the situation to a friend on the Catchment Board, Vince McGlone, then the head of the Lands & Survey Department, and he kindly took the Ballantrae sheep and exchanged them for pure Romney sheep at no cost. Eddie then obtained cattle from near Wellington for the trials, again at no cost.

Eddie had some memorable moments with farmers. There was one time he enjoyed telling about at family parties, when he took his wife out with him to visit a dairy farm. The farmer was proud of his farm, his cattle and their products and showed Eddie and Marge his premium cream in galvanised cans with their lids on. However, when he took off the lid off one to show them the super high quality cream therein, there was a dead rat floating in the cream! He hastily removed the rat and rinsed the can, but Marge was still horrified by this incident, while Eddie just laughed it off!

Eddie eventually retired in 1979 and died suddenly in November 1992.

## **Backroom people**

**Les Gorman** was an early “backroom boy” at Grasslands Division in Palmerston North, where he worked for Bruce Levy, carrying out much of the everyday measurement of the plant material that eventually produced the first Grasslands pasture varieties.

Les began classifying the white clover plant material collected by Levy and William Davies, which led to Levy describing six main types, including what is globally known as *Grasslands Huia* white clover. *Huia* was most successful because it was produced in bulk by New Zealand seed growers and sold in many countries at a good price.

During the Second World War Les was drafted to service grass airfields, but he fractured his pelvis in a severe car crash. It was thought he would never walk again but one day he chased his brother in their garden and this stimulated his return to mobility.

Les was keen to undertake a doctorate at Massey College but returning servicemen had priority, so he continued in his backroom role until retiring.

## **Nelson Cullen - a southern leader**

**Nelson Cullen** came from a farm near Milton, Otago. Like others he studied agriculture at Lincoln and graduated in 1950. Nelson was appointed pasture research officer at the Invermay Research Station and over the next 16 years he studied use of fertiliser and trace elements and undertook pasture studies on establishment, seed mixtures and management.

His major research contributions included the discovery of molybdenum responses in pasture, finding the most suitable forms and application rate of fertilisers. His trials in the Te Anau basin resolved pasture establishment problems in that area as it was being developed.

In 1966 he became Invermay’s director, overseeing research into animal, pasture, crop, fertiliser and soil technology there and at Tara Hills near Omarama. He also administered the MAF Woodlands station, south of Gore. Over nine years he developed regional research programmes and built up a staff that included 20 scientists.

Nelson moved to Ruakura in Hamilton as Director of Soil and Plants in 1975 with a staff of over 180, including 50 scientists working on plant, soil and fertiliser research. This included soil testing, soil chemistry, fertilisers, pastures, crops, weed control, horticulture, viticulture, entomology and aquatic plants, as well as managing sub-stations at Pukekohe and Gisborne.

Nelson recruited more high-calibre staff, established horticulture research, and helped to set up a comprehensive fertiliser advisory system. He also established new facilities for entomology, horticulture and aquatic plant research while promoting farmer-scientist liaison and dissemination of research findings.

## **Force to be reckoned with**

**Ray Brougham** started post-war as a technician and worked his way into research by obtaining advice and ideas from his colleagues. An agricultural degree at Massey helped him and eventually he was awarded a DSc for papers on pasture management. He became Grasslands director in 1970.

Ray further developed the DSIR regional research stations at Kaikohe, Ballantrae, near Woodville, Aorangi near Palmerston North, Lincoln, Tekapo and at Gore.

In 1970, NZGA elected him a Life Member and he steered the direction of its Executive Committee and the GMT until the 1980s. Ray's research focus was bull-beef management based at Aorangi. Bull beef farmer and agricultural engineer, Harry Wier, went on to develop TechnoGrazing™ as an effective adaptation of Ray's methods for sustainable farming.

Ray talked to farmer groups everywhere to encourage controlled grazing. He retired in 1985 but devoted later years to raise sponsorship and support for hosting the 1993 XVII International Grassland Congress in New Zealand and Queensland. The event proved to be most successful at all levels. Ray died suddenly aged 67 in November 1993.

## **Some well-known NZGA presenters**

From Southland to Northland, the researchers contributed papers in keen competition each year, matching their offers to fit the regional issues. These are some who contributed over the years:

Based in Gore: **David Turner** became a Grassline pasture adviser and radio weather forecaster before his premature death.



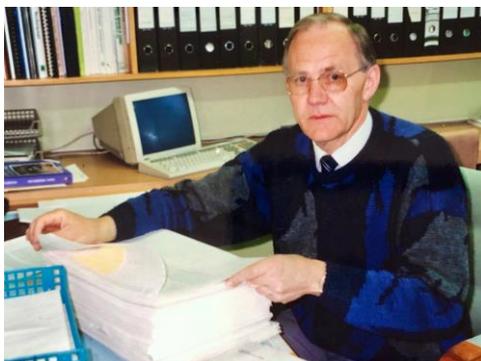
*David Turner*

**Keith Widdup** (based in Gore and then Lincoln) bred white clovers and other legumes and was NZGA President in 1994.

**David Stevens**, also based in Gore and Invermay - animal/pasture researcher and deer management are his fortes; NZGA President from 2016 to 2018.

**Bill Lowther**, worked as legume and Rhizobium researcher at Invermay carrying out pasture establishment, seed coating and Caucasian clover research. He served on the NZGA Executive Committee in the early 1980s, but declined to serve as President.

The Invermay Soils & Fertiliser Group was headed by the former Shetlander, **Alan Sinclair** and the peripatetic **Jeff Morton**. Others joined them, including Ross Monaghan and Cecile de Klein.



*Alan Sinclair*

Alan compared Maxicrop liquid fertiliser with water-only application and found no difference in 17 trials, which supplied evidence in a court case MAF took against the New Zealand company selling it for farm use. Alan had to undergo a heart operation, and sadly failed to survive it.

**Heather Pryor** worked with Bill Lowther on legume rhizobia. They located a type that was effective with Caucasian clover, a breakthrough to boost its establishment. Then, as funding dried up, Heather resigned and married to become Heather Odgers and moved to Wanaka.



**Barry Wills** (DSIR/AgResearch), was based in Alexandra, Central Otago and worked on alternative forage species for dryland.

**Alan Nordmeyer**, based with the Forest Research Institute in Rangiora, worked on legumes and N-fixing trees for South Island uplands.

## At Lincoln

**Joan Radcliffe** was elected to the NZGA Executive Committee and served from 1986 to 1990. Joan was the first female scientist to serve on the Executive and she wasn't always happy about how decisions were made. Joan settled in the then Field Research Division in the Department of Agriculture as a pasture ecologist, based in Wellington, then Ruakura, and finally Lincoln, where she stayed for the next 20 years. Her work



covered a wide range of research, and in many cases she pioneered our understanding of reactions of pasture plant and weed species to grazing management, soil and climate variation.

A series of papers she produced while obtaining a doctorate at Lincoln in 1979 are still relevant in understanding climate change effects in pasture production patterns. Joan was also a pioneer on using goats to control well-established gorse, gaining international acclaim and particularly from the NZ Society of Farm Management. Joan died, aged 59, in November 1997 in Christchurch.

**Tom Fraser**, a popular, easy-speaking pasture researcher and impressive communicator. Tom was NZGA President in 2000 and awarded the Ray Brougham Trophy in 2012.

**Alan Stewart**, based at the Ceres Research Farm near Lincoln - prolific pasture/forage breeder in Pyne Gould Guinness and then PGG Wrightson for 42 years.

Alan bred many novel pasture and forage varieties that became familiar successes on farms, here and overseas. These include: 13 different pasture species, five forage species, five turf grasses and two successful grazing herbs - chicory and plantain.

### **Others at Lincoln:**

**Lincoln College/University** - Tom Walker, Jim White, Reinhart Langer, Derrick Moot, Michael Smetham, Dick Lucas,

**DSIR Lincoln:** Peter Clifford; Ken Brown; Tom Fraser; David Scott; Keith Widdup; Lester Fletcher; Euan Vartha;

## **In the Wellington area:**

**Harry Gibbs**, based at Lower Hutt - a kingpin at the NZ Soil Bureau in the Hutt Valley and travelled all over the regions, studying their soils. He was a talented presenter at

NZGA Conferences and always described the local soil types on the NZGA field trips. His contributions and papers at the conferences earned him Life Membership.

## **In the Palmerston North area:**

### **DSIR Grasslands:**

Plant Breeding Group: Lionel Corkill; Peter Barclay, Bill Rumball, Syd Easton, Warren Williams

Agronomy: John Lancashire, John Hay, Deric Charlton, John Brock

Plant Nutrition: Roger Ball, Andrew Carran

Plant Diseases/Endophyte: Garry Latch

**Margot Forde**, based at Grasslands Palmerston North - botanist and the sole female scientist at Grasslands for many years.

She became curator of the Germplasm Centre that's named after her and collected many seedlots herself in Southern Europe and China.



**Massey University:** Bram Watkin; Alex Chu; Peter Kemp; John Hodgson; Cory Matthew

**MAF Palmerston North-Hawke's Bay:** Bill Kain, Geoff Crouchley, Paul Muir, Allan Gillingham, Alison Popay.

**Allan Gillingham**, based at Whatawhata, then Flock House - soil researcher who studied in many regions. Later a science manager in Manawatū.

## **In the Waikato area:**



**Gavin Sheath** began his career, after graduating at Lincoln, as the MAF district scientist for Otago, carrying out trials around Oamaru. A few years later he undertook a doctorate at Massey University on *Grasslands Maku* lotus.

He then he moved to Whatawhata, working with Peter Rattray, soil nutritionist Allan Gillingham, animal behaviour scientist Clive Dalton and others. Gavin maintained his interest in legumes at Whatawhata and selected Prop, a reseeding white clover for summer-dry hill country.

Gavin became OIC at Whatawhata and moved into farming systems research and working with Māori incorporations, becoming a source of farming wisdom that helped improve some large land areas around Waikato and neighbouring regions.

Gavin served as NZGA President in 1985 and was elected a Life Member in 2001. He represented Australasia/Oceania on the Committee from 2001 onwards, and was surprised and honoured to be elected Chairman. He went on to be the first New Zealander to chair the Continuing Committee of IGC in 2005.

**Doug Edmeades** was based at Ruakura - he was a leading researcher in the Soils and Fertilisers Group for a long period; Doug led the famous case against Maxicrop in the early 2000s.

Then Doug founded *agKnowledge*, a soil fertility consultancy. He has been warning dangers of the current funding science funding system for many years:

“Scientific research should be done for public good, with information openly available. The Universities and Crown Research Institutes should be not-for-profit organisations with no interest or involvement in intellectual property. Then the researchers can speak freely without vested interest.”

“New Zealand needs a unifying and courageous leadership to move science back to independence, and farmers into a position of being able to trust the facts presented. The story should never replace the evidence, facts and data, but together and backed by the bottom line of a local farmer, will be truly compelling.”

Since 1931 over 2,000 papers have been published in the Proceedings and Journals of NZGA and most have been presented by researchers. These papers are available on the website and there are far too many names to mention here.

The papers were all checked by referees and verified to avoid any misinformation, which would reflect poorly on NZGA and mislead those applying it in their businesses and on the farms. These referees are also too numerous to mention but their time and effort is much appreciated.

**Rex Webby**, based at Whatawhata, was skilled in managing farm discussion groups in northern North Island. Rex received an NZGA Special Award for Technology Transfer in 2004.



**At DairyNZ - Dave Clark and Errol Thom** were regular attenders and presenters at NZGA conferences. Dave was awarded the Ray Brougham Trophy in 2010 for his contribution to research and development over 36 years.

Errol is a Life Member and has been NZGA Editor for two periods. He assessed ryegrass endophyte effects on pastures and cows.



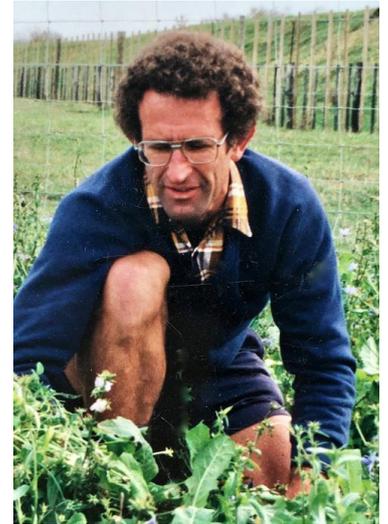
*Errol Thom*

He developed principles for establishment and maintenance of pastures based on ryegrass containing novel endophytes.

In MAF Northland: **Gavin Ussher** was keen on red clover around Kaitaia; **Graham Piggot**, at Whangarei published his own book on Kikuyu grass.

**DSIR** **Grasslands**  
**Kaikohe/Kerikeri: John Rumball**  
and **Bruce Cooper**

were quiet-spoken researchers who were frequently present at annual conferences.



*Dave Clark*