

Northland Kikuyu Action Group

June 2007

Introduction

Kikuyu is consistently a key feature of the Northland pastoral scene. When farmers are asked what they would like to see more research done on, kikuyu management is always a key part of the response. There is also often a degree of controversy about kikuyu management – but love it or hate it, kikuyu needs to be managed if farm production is to be maximized.

Since its inception in 1999, the Northland Kikuyu Action Group (KAG) has sought practical options for farmers faced with kikuyu dominant pasture. It remains a farmer driven organization – thanks to the contribution and input of those farmers who have remained on the committee. You are encouraged to come along to the forthcoming AGM – there won't be any jobs handed out, but ongoing farmer support and input is important to the future of KAG.

Helen Moodie
Chair – Northland Kikuyu Action Group

Minister of Agriculture comes to grips with Kikuyu

Jim Anderton, Minister of Agriculture visited Geff Cooksons beef farm on his recent trip to Northland. Here the importance of regionally specific work, such as the trial on kikuyu management underway on the farm was emphasized. The risk of kikuyu dominance spreading as a result of climate change, and the implications for Waikato and the Bay of Plenty were also discussed.



Up to his knees in Kikuyu - Jim Anderton appreciates the challenge of autumn kikuyu management.

Regular Email Updates Available

If you would like to receive these brief email updates on the projects KAG has underway, please contact Helen Moodie to be added to the email list.

MEAT & WOOL NZ
Beef Council

Northland Kikuyu Action Group Annual General Meeting

The KAG AGM will be held from 1.00 to 4.00 pm on Thursday 28th June at the Northland Dairy Development Trust meeting room, 259 Jordan Valley Rd, Hikurangi. Bruce Paton will present the results of his Kikuyu Eradication trial.

Afternoon tea will be provided and all are welcome to attend!



Come to the AGM and hear how keeping kikuyu out is an ongoing challenge for Bruce Paton on his rolling country.

First summary booklet – Farm Management of Kikuyu for Production and Profit

If you don't have a copy of this first publication that is a summary of the results of trial work carried out to date by Wayne Andrewes on the role of mulching as an option for management of kikuyu grass to maximize farm production, contact Helen Moodie.

Further information booklets will be available in July 2007 from the Northland Kikuyu Action Group, including a summary of the results from the Paton 'Kikuyu Eradication' project.

 **Sustainable Farming Fund**

Ministry of Agriculture and Forestry
Te Manatū Ahuwhenua, Ngāherehere

KIKUYU MANAGEMENT OPPORTUNITIES FOR STEEP LAND

Many sheep and beef farmers take a "Tool Box Approach" to kikuyu management.

Generally, a proportion of the farm can be managed with tractors, and KAG encourages them to utilize the mechanical means of mowing/mulching and oversowing as previously developed on this area to control rampant kikuyu growth during the autumn.

Other areas can be controlled by subdivision and grazing pressure. The role of the breeding cow in this is of particular interest.

However it is often impossible to do this on all the remaining area of the farm and farmers are faced with the decision of controlling all their farm badly, or some of the farm well and letting the rest go rank.

If farmers had the confidence that they could bring rank pasture back into production relatively quickly through strategic nitrogen applications, they could lower the stocking rate on an area of the farm and increase the stocking rate and consequent pasture control on the remaining proportion.

This programme of work seeks to add to the Tool Box of management options for farmers, with particular emphasis on tools that do not rely on tractor-based solutions. Three trials are underway to provide farmers with practical, focussed options allowing farmers to manage kikuyu pasture where established management options (mulching/spraying or eradication) are not appropriate.

(a) Strategic use of nitrogen as a tool to change pasture composition and increase pasture growth in the spring

Started in Autumn 07, this trial on a Kawakawa beef farm aims to determine whether nitrogen application can be used as a tool to accelerate the natural change in species composition that occurs during the winter months – and bring rank kikuyu pasture into ryegrass production quicker. It will trial a late autumn or early winter application of nitrogen to encourage the change in pasture species, and provide temperate grasses (eg ryegrass) with a competitive advantage over kikuyu, resulting in increased winter/early spring production and leading to better animal

performance. The project will run a series of plot trials where nitrogen is applied at different rates and frequencies during the winter/spring period.



(b) Enhanced grass establishment and animal performance through the spring using strategic application of nitrogen

Temperate grasses being established in autumn from seed sown into a kikuyu dominant sward can struggle to compete with kikuyu. One theory is that the very high C:N ratio of rotting kikuyu may immobilise nitrogen in kikuyu residue, effectively robbing the establishing seedlings of nitrogen.

Also started in Autumn 07, this trial run on a Taipa sheep and beef farm looks at whether nitrogen applied shortly after sowing can improve pasture establishment and lead to more animal production through the spring period. The trial utilises multiple mobs of animals to monitor actual animal performance gains from a combination of nitrogen and annual grass treatments. In addition to animal performance data, we will be monitoring pasture growth and quality measures.

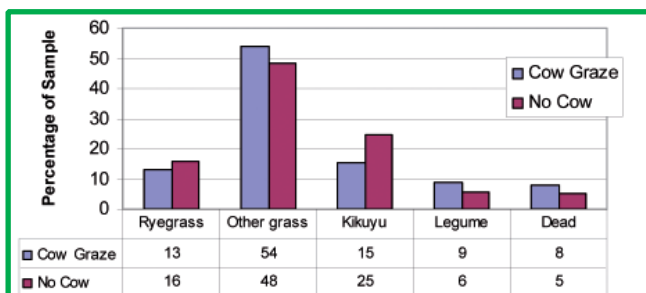


(c) Re-evaluate the role of the breeding cow in managing kikuyu

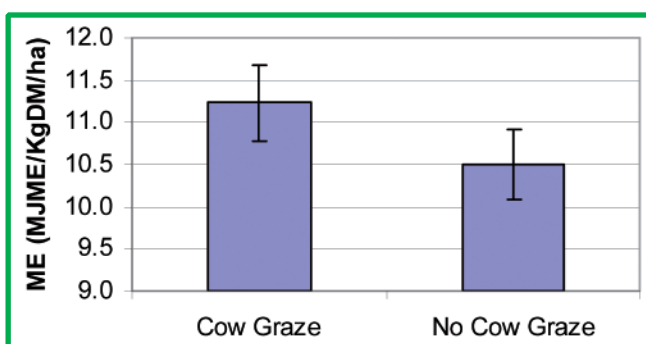
Breeding cow numbers are dropping in Northland – is this to the detriment of kikuyu management and overall farm profit? This trial examines the impact of grazing kikuyu residue on breeding cows performance relative to other classes of stock. Does the ability of the cow to remove kikuyu residue translate into better pasture production and animal performance on the farm in the spring? This trial looks at both the animal and pasture impact of using breeding cows as a tool to manage kikuyu quality.

The first year of the trial was carried out on Don Jacque McKay's property at Maungaturoto.

Although no statistically significant differences were present in the results in the first year of this project, it did produce some trends, such as the move to lower kikuyu in spring pasture and higher energy. These trends reinforce anecdotal comments from farmers. Even the small differences observed in the first year of the project would have an impact on profitability. A difference of 0.5 MJME/kgDM between the treatments (growing around 3,500 kg DM/ha) would translate to an increase of 1,750 MJME or around 160 kg DM worth of extra feed.



Dissection Data from Cage Cuts Year One – Aggregated Data



ME differences between the cow grazed and no cow grazed treatments – Aggregated data through the season

The second and third years of the breeding cow project will be run near Taupo Bay in the Far North. We will be adding a mulching treatment to the breeding cow trial to see how those breeding cows really stack up.



Breeding cows for kikuyu management

A summary of the results of the first year is available from Gareth Baynham.

(d) The final project involves further work on pasture growth and quality. This will provide valuable information comparing seasonal performance of kikuyu and ryegrass pasture

Thanks to those supporting the sheep and beef project:



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OTHER KAG PROJECTS UNDERWAY

Kikuyu Grass Management and Elimination with Clover – A Whole Farm Concept



This project investigates sowing clover pastures on hill country as a means of controlling kikuyu grass reinvasion and increasing the nutritive value of the pastures. The novel feature of this work will be the study of the repeat sowing of clover pastures using Roundup and direct drilling. The project is currently being trialled in four localities Mata, Kerikeri, Umawera and Waiharara and further funding from Dairy Insight enables us to continue the work on the four sites.

For more information on the Kikuyu Action Group contact: Graeme Piggot epi@igrin.co.nz

For more information

Helen Moodie, NZ Landcare Trust. (09) 436 3863 or Helen.moodie@landcare.org.nz
Gareth Baynham, AgFirst, (09) 430 2410
Gareth.Baynham@meatandwoolnz.com

The effect of sowing rate and seed treatment of annual ryegrass sown into mulched kikuyu dominant pasture on cost and production per hectare.

Despite not receiving funding for this proposal, Wayne Andrewes is establishing a series of simple trials on 4 farms from Kaitaia to Dargaville to determine the effect of sowing rate, and seed treatment, premulching vs no premulch and early flowering vs late flowering species for pasture oversown into kikuyu dominant pasture on subsequent establishment and production.

Kikuyu Impaction – fact or fiction!

Once again the Northland Kikuyu Action Group were asked to contribute to the workshops at the recent Pastoral Farming Development Group conference in Waitangi in early May.

Northland AgriQuality Vet Hugh Black teamed up with Wayne Andrewes and Graeme Piggot. After consigning the loss of animals due to kikuyu toxicity largely to history (due to the excellent biological control of the army worm which is generally considered to be the cause of kikuyu toxicity) Hugh pointed out that the nutritive problems of kikuyu arise generally from starvation in what appears to be the midst of plenty. Winter kikuyu grass can be of such poor quality, that the cattle simply cannot eat enough to meet their metabolisable energy, P, Ca, Na or Cu needs.

Kikuyu impaction usually occurs in non-lactating but pregnant dairy cattle that are fed large quantities of kikuyu stolon. The Hine Rangi Trust has allocated money for a thorough case work-up and report in the peer reviewed scientific literature, and Hugh is keen to hear from farmers with possible cases.



Wayne Andrewes demonstrates the tensile strength of kikuyu stolons, and why it takes so long to digest, hanging 12 kg of weight off a stolon!



Dairy InSight