



## TARARUA FARMING FOR PROFIT PROGRAMME



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### Newsletter No 4

**“NAIT and E.I.D – Capturing the Benefits”**  
**“Your 2012 Winter Feed Budget”**  
**“Ewe Winter Reminders”**  
**“B+LNZ PGP Update”**

Our most recent Farming for Profit day on 22<sup>nd</sup> May 2012 at Kumeroa was a great mix of discussion, practical demonstration and useful take-home information. Thanks to those who attended; the level of questions, interaction and comment was great and really added to the material presented.

Chris and Staci Thompson run a large heifer grazing, bull and lamb finishing operation on 'Four Creeks'; part of Manawanui Ltd, a larger farming company. They have been using EID in this system for 6+ years, and Chris's demonstration out in the yards and description of the benefits was really helpful for those still struggling to see where it might fit. The other very comforting fact was that the gear Chris is using is now considered 'very old', but it still worked seamlessly and quickly.

David Hildreth gave us a great photo show of how they use EID in their stud ewe flock; and made the point that early adopters like themselves have made 'most of the mistakes' and are happy to help others who are wanting to adopt the technology – don't battle away in isolation!

Read on for more detail on this, plus critical aspects of feed and ewe management that may make the difference between a record lambing or not this season! Finally we include some notes on Mike Petersen's update on B+LNZ's PGP (Primary Growth Partnership) project application.

**Ginny :-)**

Ginny Dodunski, on behalf of the facilitators, Baker & Associates and Totally Vets Ltd



**ADB Williams Charitable Trust**

# NAIT & EID basics: Paul Gilligan, Tru-Test Ltd

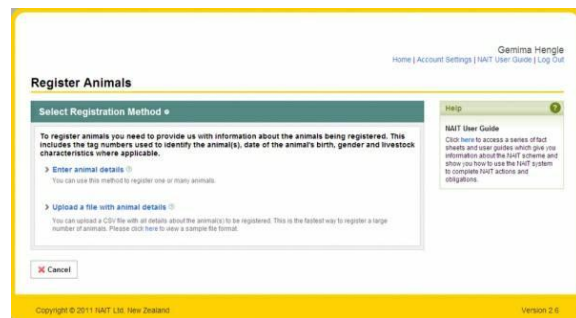
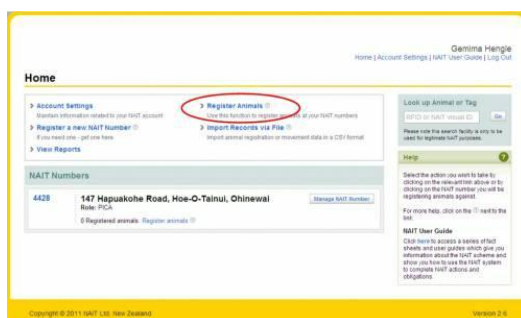
## NAIT

- Comes into effect 1 July 2012
- All cattle leaving your property need to be EID tagged and have the movement recorded through the National Database
- The intent of NAIT is that the vendor or an agent of the vendor is responsible for this notification
- To register with NAIT, you need your AHB number, go to [www.nait.co.nz](http://www.nait.co.nz) or get someone else to do it for you
- New-born animals must be tagged within 180 days or before their first movement, except bobby calves
- Existing stock need to be tagged within 3 years or before moving off the property (e.g. breeding cows)
- When you purchase EID tags, the tag retailer forwards the individual NAIT numbers of each tag to the NAIT database
- Animals considered impractical to tag (but have an existing AHB tag) can go direct to slaughter, but will incur an 'Impractical to tag' levy of \$13.00 + GST
- Animals sent to meat processors and saleyards will be recorded for you
- For private sales the movement information should be sent to NAIT by the vendor and receiver
- TAG READERS ARE NOT COMPUSORY BUT CAN MAKE THE JOB A LOT EASIER, PLUS IF USED TO THEIR POTENTIAL IN FARM MANAGEMENT WILL AT LEAST PAY FOR THE TAGS, AND MORE...

## Getting your current animals onto the NAIT database

Go to: [www.nait.co.nz](http://www.nait.co.nz) Home > News & Publications > NAIT user guides and fact sheets > *How to register animals*

You will be stepped through the process of getting the info from your tags into NAIT. Read it before you tag your stock, especially if contemplating entering numbers manually



## EID basics

### How it works

- The term EID (Electronic Identification) is used in agriculture and is interchangeable with the term RFID (Radio Frequency Identification)

- A basic EID system consists of a reader (plus antenna) and a passive tag (meaning there is no battery or other power supply in the tag) which contains a data chip
- The tag has a small coil that passes through the field created by the reader and its antenna
- The reader passes energy to the tag by the magnetic field created by the antenna
- This powers up the transponder (tag) and it returns the data stored on the chip inside it
- This data is a unique 16 digit number; every tag in the world is unique
- The reader then receives this data via the same antenna and decodes its data to a format that scales and other devices like PCs can understand

### **Reader performance**

- The distance that a reader will read tag data from is not huge (about 40cm for a stick reader), but be aware that panel readers read on both sides, so the of tags animals boxed up in a yard next to a crush that has reader installed on the side may be inadvertently read
- **Things that affect read range:**
  - Tag orientation
  - Antenna used
  - The brand and type of tag, e.g. size, FDX-B or HDX
  - The reader's environment i.e. is there a lot of metal touching the antenna, is there electrical noise present
- **Tuning:**
  - Older readers needed to be manually 'tuned' into their environment
  - The field created by the reader is affected by metalwork and other factors like electrical noise and temperature
  - Manually tuned antennas, once tuned in a static environment can't adjust to retain optimal performance when the environment changes e.g. gates on a crush opening, drafting gates opening
  - Newer auto-tuned readers do not suffer from this problem
- **Dual Antennas:**
  - In some installations one antenna will not ensure 100% tag read.
  - This can happen when the EID tag may be in either ear or with a particularly wide race or crate - this is sometimes seen with deer with wide weigh boxes
  - In these cases reader models with the capacity for dual antennas give better performance
- **Do I need a stick reader or a panel reader?**
  - If you are planning to do a lot of regular weighing, require speed of operation and looking for labour savings, a panel reader will generally be the superior option
  - For recording animal movements, for weighing of animals in satellite yards or at various properties, and for smaller lines of cattle, a stick reader may be more suitable
  - May be most useful to have both

## E.I.D On-Farm Benefits

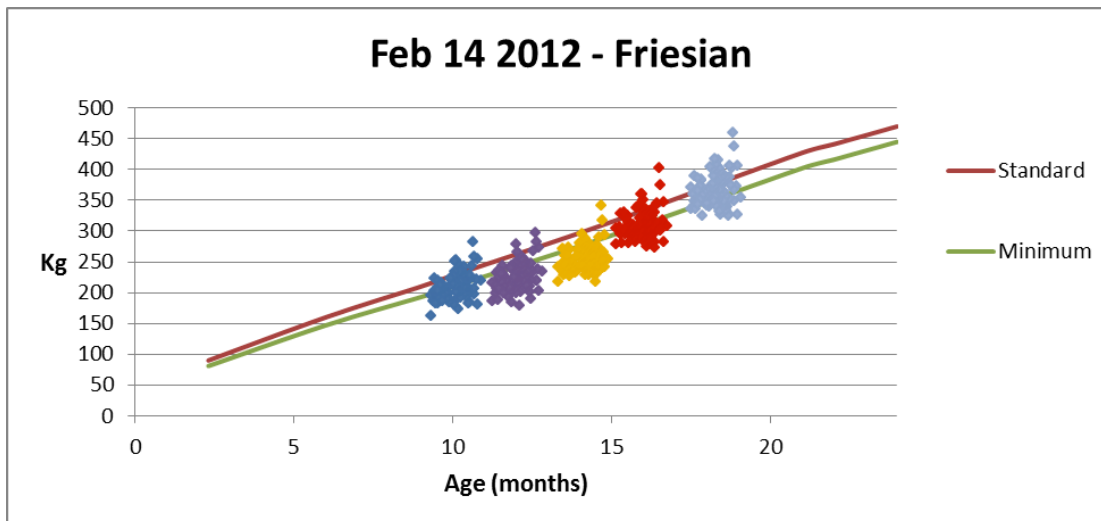
Increased labour efficiency – Better precision – Better information on individuals –  
Scope to manage differently

### Four Creeks – Chris and Staci Thompson

Measure	With EID	Pre-EID
Labour units	1	2
Cattle processed/hr	60-70	40-50

Growing cattle (heifers and steers) are individually identified and weighed monthly, individuals are drafted on a pre-determined liveweight gain; animals that fall below target can be examined/managed differently.

**Examples of reports that can be generated in 2 steps from data captured from panel reader:**



	Age		Weight		
	Days	Months	Actual	Target	ADG
Count			89		89
Maximum			460.0		1.03
Minimum			324.0		0.59
Average	556	18.3	367.0	376	0.79
Lower quartile			348.0		0.72
Median			364.0		0.80
Upper quartile			384.0		0.86

Finishing lambs have been tagged with mob-specific EID tags that denote property of origin; there are measurable differences in performance on a mob basis between sources of lambs.

**Australian examples\*: Improved accuracy and labour cost savings:**

**Tullamore Research Station – yard work**

KPI	Visual	EID	EID for same investment as visual
<b>Mob size</b>	700	700	1750
<b>No/hr</b>	180	300	300
<b>Labour units</b>	3	2	2
<b>Labour cost/h</b>	\$16	\$16	\$16
<b>Hours</b>	11.67	4.67	4.67
<b>Total cost</b>	\$186.67	\$74.67	\$186.67
<b>Cost/animal</b>	\$0.27	\$0.11	\$0.11

**Balmoral Central Sire Evaluation Site – data handling**

KPI	Visual	EID
<b>Labour cost/weight recorded</b>	\$0.90	\$0.20
<b>Error rate</b>	5%	0.05%
<b>Data management personnel cost/h</b>	\$80.00	\$80.00
<b>Cost of time for tag correction</b>	\$240.00	\$2.40
<b>Cost/record for data management</b>	\$0.40	\$0.005
<b>Total cost/unit correct data</b>	\$1.30	\$0.20

\*Source: Sheep CRC Australia

**Hildreth Romneys – David & Vanessa Hildreth**

- Started using EID in 2004
- Why – because I couldn't read the brass tags!
- Thought EID was more widespread but we were very much one of the first
- Today use EID to manage and record
  - 2800 stud ewes
  - 1500 Ram Hoggets
  - 1400 Ewe Hoggets
  - Tags are put in at 3 weeks of age - tag retention is good; adult animals tagged for the first time seem to suffer more tag infections and these tags are more likely to be lost

- Gear:
  - Panel reader and indicator at crush
  - 3 way auto drafter
  - Bluetooth stick reader for certain applications
  
- Benefits of EID to the Hildreths:
  - Faster and more efficient data capture - weighing and drafting 600+ per hour; old system did 150 per hour
  - Once set up 100 % accurate; no reading tags and writing down numbers
  - Data is easily collected for Farmax files
  
- Management applications:
  - Weigh lambs at docking
  - Weigh all lambs at weaning – *a true measure of pre-weaning LWG!*
  - Draft lambs into rams, ewes and culls
  - Weigh all ewes at weaning
  - Weigh ewes pre mating
  - Weigh ewes post mating
  - SIL provide breed line information - can draft the ewes into 3 different family lines which are then mated to 3 different and unrelated lines of rams. Without EID this would be impossible.
  - Scanning and mating date information collected.
  - At docking lambs are mothered up and tagged; it takes 5 staff 4 weeks to tag 4200 lambs.
  - Ewe info at docking (including BCS) entered onto Excel spread sheet; we get to look at each ewe and her lambs and make any necessary comments. This spread sheet uploaded onto SIL.
  - Analysis of lamb weight gains; matched with ewe performance and longevity
  - Efficiency analyses
    - Total lamb liveweight to ewe liveweight
    - Total weight of lambs weaned over ewe lifetime
    - Effect of ewe hogget lambing on ewe lifetime performance
  - Measurement of performance on different forages and soil types

## Your winter feed budget – How is it going to work out?

*Jeremy Davies, Baker & Associates*

Jeremy Davies presented two examples of feed budgets from local farms, one where summer growth had been poorly controlled, with resulting poor April feed quality, and another where summer growth had been well controlled, with better feed quality into April.

The big difference between the two appears in late winter, where excess poor quality standing feed has suppressed autumn growth potential on the first farm, and a deficit appears in the feed budget right around lambing.

KPI	Farm 1	Farm 2
Peak summer cover	3500kgDM/Ha	2500kgDM/Ha
April pasture quality	Poor	Reasonable
Autumn PGRs	Reduced 15%	
Feed situation at lambing	Deficit – Set stock onto cover of 1100kgDM/Ha	Set stock onto cover of 1350kgDM/Ha

**Message: Don't assume that high summer pasture covers will result in an easy winter!**

To eliminate the feed deficit for Farm 1, Jeremy compared the following options:

- Do nothing:
  - cost of this in ewe performance: 5% reduced STS plus weaning weight of lamb reduced by 2kg
  - cost to this farm was \$32K or \$59/Ha
- Sell cattle:
  - R2 heifers
  - 'Cost' farm \$18/Ha in reduced prime stock income
- Supplement cattle:
  - Hay to R2 heifers
  - Cost \$25/Ha
- Graze heifers off:
  - Cost \$11/Ha
- Apply N fertiliser:
  - Cost \$12/Ha

**Message: A properly calculated feed budget will enable you to critically compare various options for managing a deficit**

Finally, a decent Porina infestation this year will make the predicted deficit much bigger and the consequences more severe. Porina monitoring is essential and control justified if threshold is reached (4 caterpillars/20cm<sup>2</sup> spade dig). Cost is \$24/ha.

# Winter Ewe Management Tips and Reminders

*Ginny Dodunski, Totally Vets Ltd*

## **We are after...**

- High lamb survival – 85% or more
- High lamb growth rates – 300 grams/day or more to weaning
- Wean ewes in BCS 3 or more

## **If your ram goes out on the 1st April...**

Ewes must be feed more than maintenance for at least 15 days to avoid any LW loss, which can decrease conception rate.

By 25th April, more than 90% will already be in lamb, can feed at maintenance.

By mid-late May, the pregnancy is secure; ewes can be fed less than maintenance for short periods but must not lose more than ½ a BCS. Do you know which ewes in your flock can afford to do this? They should not be below 2.5 at lambing.

BCS at lambing is critical for lamb survival and lactation. If it has dropped below 2.5 these and ewe weaning weight likely to be compromised

From 26th July (5 weeks pre lamb) onwards, multiples must not lose BCS. Being in negative energy balance during this period increases risk of lambs being born with reduced vigour = reduced survivability

By 5 August, multiples must be lifted more to meet increasing energy demand of late pregnancy

9 September (mean lambing date i.e. half have lambed) – use this date to determine lamb growth rates through to weaning.

## **Again, we are after...**

- High lamb survival – 85% or more
- High lamb growth rates – 300 grams/day or more to weaning
- Wean ewes in BCS 3 or more

## **The Key Points of Influence:**

- Ewe BCS – static and changes:
  - *No less than BCS 2.5 at lambing*
  - *and must not have been losing weight in the immediate weeks pre-lamb*
- Multiple ewe feeding pre lamb:
  - *If rotating right up to point of lambing, residuals should be no lower than 1200kgDM/Ha to achieve this.*
  - *If set stocked early, unless you are lambing quite late (where pasture growth is truly matching demand), your ewes will probably be losing weight and this probably won't be achieved*



- Multiple ewe feeding post lamb:
  - *Peak lactation occurs when a ewe has her maximum feed intake (5% of BW) which begins two weeks after start of lambing and on a flock level is about three weeks into lambing*
  - *If covers are below about 1400kgDM (maybe even 1500kgDM/ha) at this point (especially in wet/cold springs) we are probably underfeeding our ewes*
- Feed quality in late lactation:
  - *Too often the threat of losing this is used as justification for starving ewes at lambing and peak lactation*
  - *You will never get that production back again and it is the easiest time to make money, in live lambs, and lamb growth rates*
  - *Once docking is completed, starting some sort of rotation with ewe and lamb mobs can make a big difference to pasture quality, especially where cattle numbers are limited, and especially if there is any ability to utilise creep gates effectively*
- Animal health
  - *Trace elements and worms should not be limiting to production*
  - *The effect of the latter is greatly reduced where ewes are well fed*
- Genetics

#### **Ewe BCS:**

- *The magic level is 3 – below this at any time reduces performance*
- *Losing BCS in the last 5 weeks reduces lamb survival and lactation*
- *The number of multiple ewes below 3 at lambing drives lamb survival*
- *Lifting multiple ewes from 2 to 3 earns 35 cents/kgDM*
- *INTERVENE AT SCANNING – but realise that this requires a lot of high quality feed; 32kgDM (a month at 2x maintenance)*

#### **Pre lamb feeding:**

- *Multiples feed intake cannot drop in five weeks before lambing*
- *Rotations are the best way to achieve this – not too late to plan for that*
- *Is more important than paddocking out covers? *Plan to get both right – but if you have to compromise, keep feeding them up to lambing!**

## **B+LNZ Primary Growth Partnership initiative update**

*Mike Petersen, Chairman B+LNZ*

- Low farm-gate returns of 2007-2009 prompted much discussion on potential industry restructure
- Prompted Red Meat Sector Strategy project – feature of this is unprecedented collaboration and information sharing from players within the industry including processors
- NZ Sheep & Beef sector is currently an \$8b industry with potential to grow to \$14b by 2025
- Potentially another \$420/Ha for existing S&B farms
- From on-farm perspective – still much scope to adopt best practice to lift performance and returns
- Accept that 25 – 40% of producers don't want to change – but that therefore up to 75% are prepared to do so but most need more support to achieve this
- B+LNZ's PGP application working title is 'Accelerating Best Practice':
  - To enable farmers to better benchmark themselves ('everybody thinks they're in the top 20%!')
  - To make available better tools that highlight what the top performers do and how they do it
  - To enable farmers to grow their business management skills ('there is currently 80% equity in the sheep & beef sector – this is an opportunity!')
- Current collaborators:
  - Major rural banks
  - Alliance, ANZCO, Blue Sky Meats, and most recently, SFF
- PGP had approval to go to the 'business case;' stage; B+LNZ hope to have the project proper underway by the end of 2012

