

## Recording and decision making tools

### Take home messages

- Decide why you want to record the information and how it will be useful
- Spend time deciding on the right tools and learning how to use them from the start
- Have good support

### Current systems used and purpose

	Currently recording	Decisions	systems used	Comments
Farm 1	Weights Growth rates Velvet weights	Culling	Lots of folders Tru Test XR5000	Pedigrees difficult Further processing difficult Velvet weighing issues Need better support
Farm 2	Growth rates Sire and dams	Culling ID outliers/slow Year-on year comps Measure to manage	FarmIQ Tru Test Tech savvy son	Enhancements to farmIQ e.g. sire referencing
Farm 3	Weights Growth rates	c/kgDM comparisons kgLW/ha	Tru test Farmax	
Farm 4	Crop yields grass growth velvet weights and grades parentage	select kill versus live sales (stud) compare hill country pastures	Tru Test XR 5000 Farm DeerSelect	Electronic recording removes reading errors
Farm 5	Velvet weights and traits (tynes, grades) Temperament Heaps of life data	Select animals to breed from and cull	Gallagher TSi	graphing and profiling individuals Can do so much more. Learning and time required.
Farm 6	Pregnancy fatal age Weaner weights	Alerts	Tru Test 3000, XRS stick.	Stick does what is needed and can enter pre-set data for drafting. Could do more with the data
Farm 7	Kill sheets Weights	Year on year comparisons culling drafting	Gallagher TSi excel spreadsheets	Building up database increases value. Can look back at historical records. System for cattle and deer
Farm 8	Single sire Growth rates	Progeny performance	Tru test 3000 + stick	Data entry needs to be user friendly for the manager.

	Currently recording	Decisions	systems used	Comments
		Select replacements	Farmax	
Farm 9	Pedigrees Velvet weights Live weights Temperament Reproduction, foetal aging	Culling Feeding Comparing feeds Selling R2 hinds in fawn	Gallagher TSi CashManager DeerSelect	Gallagher TSi fantastic. Made recording so much easier and can do so much. Should be compulsory on every farm. Would Farmax be good investment?
Farm 10	Velvet weights and traits Animal health Mouthing	Culling	Gallagher TSi	
Farm 11	SS mating, sires Velvet traits	Drafting into mating mobs (autodraft) Culling	Gallagher TSi just changing from notebooks	
Farm 12	Matching hinds to fawns	Culling and breeding		Just starting recording and wanting to learn about different options
Farm 13	Partial mothering up BCS some weights	Top and tail end ID	Tru-test and reader Head raddle tail-end fawns	Can see little benefit in lots of recording
Farm 14	Velvet Conformation Hinds lineage	Culling, breeding	DeerSelect Scales	Wanting to learn about good parentage system. Hearing about TSi looks like good option. Customer demand for records
Farm 15	Weights, BCS Preg test Fetal age, parentage Pastures	culling, breeding feeding	DeerSelect - DNA Tru test XR5000 Farmax FarmIQ with SFF data linked	
Farm 16	velvet spikers, 2yo weight grade Preg test Recorded hinds	Culling velvet stags	Tru Test XR 5000	Data overload can be an issue
Farm 17	Weights		TSi	Want to get genetics into database. Advice on how to set up system

	Currently recording	Decisions	systems used	Comments
Farm 18	Breeders data		Working with bureau - DeerSelect excel spreadsheet	
Farm 19	Weights	source farm comparison, breed comparisons, feed comparisons	Gallagher orange box, FMS (Farm IQ)	
Farm 20	Weights	source farm comparison, breed comparisons, feed, on-off crops, animal treatments. Best feeding system	Excel spreadsheet Works value sheet Gallagher Orange Box	Can we get more out of the system. Does it make a difference to bottom line. Data complicated by practical farming decisions. Input costs not recorded
Farm 21	weaner weights Growth rates Forage comparisons	Wintering systems comparing growth rates Drafting into weight mobs at weaning	Tru-test scales	Calculated \$6/kg advantage in faster growth rates by heavier weights and earlier kill date.
Farm 22	Minimal Genetics	Spring management	Gallagher TSi	Spring pressure from different livestock classes. Time pressure at that time of year.
Farm 23	Minimal		Learning	Where to invest money. Which systems will be most useful and financial benefit?
Farm 24	Growth rates over winter		Ezyweigh tru test Wand Excel spreadsheet	Just starting on data collection. More automated system.

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### What do we want to measure, why and what systems currently do this

#### Multiple enterprise comparisons

##### Discussion

Useful to compare on a c/kgDM basis or \$/ha basis by different livestock classes and cropping  
Hard to break down costs into each enterprise. Can be difficult  
Need to take into account other benefits of mixed species operations not just financial return  
One class of stock often compliments another  
Need to take into account different feed requirements throughout the year  
Pricing of stock between different enterprises (e.g. breeding unit selling weaner to the finishing unit at appropriate prices)  
Don't just rely on Farmax outputs to make decisions. Need to take other factors into account.

There was some interest for the AP project to develop of financial comparison spreadsheet that is simple to use for comparing enterprises.

### **Tools available**

Farmax can do financial and feed budgeting comparisons  
Financial records usually on whole farm systems with only income broken down by stock class  
Some financial software (e.g. Xero, Cashmanager RURAL) can be set up to code costs to different enterprises

### **Breeding records**

#### **Discussion**

Parentage dam and sire or just one of these  
Culling decisions - Cull the worst hinds that produce the poorest weaner or 2yo velvet progeny  
Select replacement animals, elite animals

#### **Tools**

Gallagher TSi can keep all lineage records and breeding values  
Gallagher TSi automatically updates average progeny data for each sire stag  
Gallagher Orange Box can also  
DeerSelect database can do more complicated calculations to work out hind breeding values before they have their own progeny so can make culling/breeding decisions earlier.  
Ear tag colour coding and numbering systems used by some farmers. Works for them.  
Observing hind-fawn behaviour  
Spotting scope, collars, tags, colours  
DNA parentage, this technology is still developing and changing

### **Financial analysis**

#### **Discussion**

c/kgDM requires a feed budget or at least feed demand for each class of stock

#### **Tools**

Accountants and consultants  
Cashmanager RURAL, integrated with other systems  
Farmax useful for this

### **Feed Budgeting**

#### **Discussion**

Very important to know what can grow on your farm and when.

#### **Tools**

Farmax and FarmIQ  
Physical cuts and measures, lab tests for feed quality  
Pen and paper + experience  
Plate meters, Feed cages  
DairyNZ website  
Consultants using their own systems

### **Weights, growth rates and kill data**

Feedback from processors good in some cases, not so good in others  
Issues of processors not working with some software (e.g. FarmIQ)  
Can track individual animals and mob according to weight gain.  
Early indication of animal health issues

### **Drafting**

TSi and Tru-test can be pre-set with automatic drafting criteria. Should be able to become a one-man operation with minimal errors.

### **Track animal health**

Record AH inputs for individual animals and withholding times  
Intervene when individual or groups of animals are not growing as well as others

### **Reproduction performance**

Need to have consistent calculations. E.g. Reproduction efficiency weaners/hinds to the stag.

### **Environmental planning**

Beef and Lamb LEP, FEP and FEMP  
Farm IQ links to mapping and good LMU plans  
FarmIQ integrated with overseer  
Fert companies mapping, Nutrient budgeting and expertise.

### **Benchmarking**

#### **Discussion**

- Between farms
- On the same farm, year on year.

#### **Tools**

Growth curves and plot your own growth curves online  
<http://deernz.org.nz/deer-growth-curves#.V2xxvldBWu4>

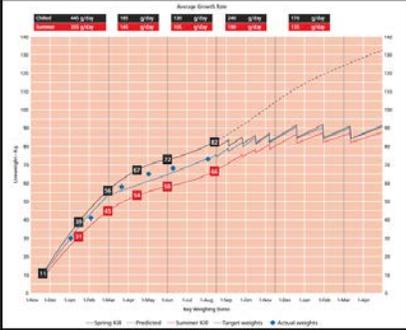
Spreadsheet with standard KPIs for individual farm recording  
<http://deernz.org.nz/KPIs#.V2xxVFdBWu4>

FarmIQ allows some level of benchmarking, particularly year-on-year within farm  
Farmax includes benchmarking tools

Currently there are no industry-wide deer farm data benchmarking tools. Many different systems are used by individuals (or none at all).

The Advance Party database's primary purpose is to record the decisions made on farms as a result of Advance party participation. Production records that are collected into the AP database are for use within individual AP groups if they wish to use this system. These can be used as handouts to identify areas of achievement and areas that require improvement. It is possible to generate averages across AP farms from the AP database however this relies on farmers submitting their data in a timely manner. At this point in time there are insufficient production records for generating averages and spreads across the farms.

Summary of tools discussed at this meeting. Note this is not a comprehensive list but only summarises what was discussed at the workshops.

What	Where to find	Benefits	Potential drawbacks
<p><b>P2P Deer Growth Curves</b> Growth curves and plot your own growth curves online</p>			
	<p><a href="http://deernz.org.nz/deer-growth-curves#.V2xxvldBWu4">http://deernz.org.nz/deer-growth-curves#.V2xxvldBWu4</a></p> 	<p>Industry standard Plot your own farm data Compare against pre-set targets Compare mobs and year-on-year Free</p>	<p>Need to be familiar with excel spreadsheet Need certain level of data-savvy to understand Computer based</p>
<p><b>P2P Farm production recording</b> : Spreadsheets with standard KPIs for individual farm recording</p>			
	<p><a href="http://deernz.org.nz/KPIs#.V2xxVFdBWu4">http://deernz.org.nz/KPIs#.V2xxVFdBWu4</a></p>	<p>Industry standard developed by farmers Simple to enter spreadsheets with KPI calculations done Can compare different mobs (growth rates)</p>	<p>Need computer skills and excel spreadsheet skills Difficult to compare year on year and with other farms.</p>
<p><b>Gallagher TSi</b></p>			
	 <p><b>Livestock Manager TSi 2</b></p> <p>The top of the line choice in Weigh Scales, the TSi2 facilit...</p>	<ul style="list-style-type: none"> <li>• Versatile quick, simple, very powerful</li> <li>• Can record anything that you want in whatever way you want</li> <li>• EID linked, no manual tag reading, no dyslexia.</li> <li>• Same image on computer as on screen or export to data files</li> <li>• Pre-set drafting criteria</li> <li>• Alerts for withholding times etc.</li> <li>• Track mob or source farm</li> <li>• Keep breeding records</li> <li>• And more</li> </ul>	<p>Cost: \$5000+ Takes time to learn to use and set up to requirements What is the payback time?</p> <p><a href="https://am.gallagher.com/nz/products/weighing-and-eid/weigh-scales-and-data-collectors/G01901">https://am.gallagher.com/nz/products/weighing-and-eid/weigh-scales-and-data-collectors/G01901</a></p>

What	Where to find	Benefits	Potential drawbacks
Gallagher Orange Box			
			
Tru test XR5000			
		<p>Can pretty well do what the TSi can do</p>	<p>May take some time to learn to operate and get the best out of it. Need to find good support service.</p>
FarmIQ			
		<p>Centralised system that links in with multiple other systems. TSi, Tru test, Cashmanager,</p>	<p>Costly: monthly subscription depends on stock units. E.g. 10,000 SU range \$38-\$250/month depending on the package Currently owned by SSF and Landcorp. Feeling that it needs to be independent to have widespread uptake.</p>
Farmax			
	 <p><a href="http://www.farmax.co.nz">http://www.farmax.co.nz</a></p>	<p>Feed budgeting and financial analysis. Lots of decision support information around stock purchases and sales. Great for comparing pastures</p>	<p>Eyeometer quick and possibly as good as feed budgeting. Only a model. Cost, monthly or annual subscription. \$25-\$187/month depend on</p>

What	Where to find	Benefits	Potential drawbacks
			system
<b>DeerSelect</b>			
	 <a href="http://deernz.org.nz/deerhub/deer-information/genetics/deerselect#.V2zgbFdBWu4">http://deernz.org.nz/deerhub/deer-information/genetics/deerselect#.V2zgbFdBWu4</a>	National database with progeny tested sires and cross linkages allowing direct comparison of sires on the same breeding value scale Can be used for own herd recording of stags and hinds to generate BVs within herd. Maternal traits and carcass traits	Limited number of studs and sires on the database.

### What gaps/challenges exist

#### Bringing it all together in one simple place

FarmIQ seems to be the system that is most highly integrated at this point in time. Farm IQ includes farm mapping, nutrient budgeting, LEP, Animal health plan, growth rate data, reproduction data, links to weighing systems (Gallagher, tru-test) some meat companies (SFF) slaughter data, CashManager RURAL and NAIT. There are some issues with other processors not being able to work with FarmIQ. It was felt that FarmIQ needs to be an independent organisation as it is currently owned by Silver Fern Farms and Landcorp. This may result in wider acceptance and use. Price is a prohibitive factor.

More/all processors need to be linked to the same system and co-operate.

#### Lack of benchmarking

See under benchmarking above

DeerSelect needs more recorded herds to be useful. Especially velvet herds with linkages to other herds

#### Simple system

Needs to be a simple system that all staff can use and understand.

Some farms have visual or manual systems in place to prevent things like double or missed drenching of different mobs.

#### People with skills and knowledge about data analysis.

How to get the best out of it and use it to drive decisions.

Many participants are collecting weights, pregnancy testing etc. but feel they are not utilising the information to full potential.

Expert people to find/build individual systems tailored to individual farm requirements.