Owl Farm

Providing knowledge

St Peter's · Cambridge New Zealand

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Te Whare Wānaka o Aoraki
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New Zealand's specialist land-based university

St Peter's School/Lincoln University
Demonstration Dairy Farm

Owl Farm: Stage 1 – Dairy Farm Performance Plan

Short term Years 1-3

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1. Purpose:

The purpose of this plan is to outline the range of Owl Farm policies (minimum operational targets) and key performance indicators (KPI's) within each of the operational objectives outlined within the Owl Farm strategy document specific to the farm operation. This will assist on-farm management through enabling a consistent approach to how decisions are made, management structures are implemented and our performance is reviewed. This will guide the future direction of Owl farm and provide much needed direction to strategic discussions.

Stage 1 has been scoped as a 3 year project, the current 2015/16 dairy season is year 1 which has largely been a benchmarking year, as such KPI's will reflect (where appropriate) targets for year 2 (2016/17) and year 3 (2017/18). This document is intended as a working document which will continue to evolve as and when circumstances change, **as a minimum it will be reviewed annually in May.**

2. Farm Development Stages

a. Stage 1 overview objective (Year 1-3)

Establish credibility by addressing current issues and performance, whilst setting up the farm for future development. During this stage, the farm will operate a pasture based system, with tactical supplementation strategies, based largely on existing infrastructure, to optimise profit while developing a resilient farm system.

3. Dairy Farm Performance Plan – Stage 1

a. Planning, monitoring and reporting

i. Policies

- Farmax Dairy Pro will be used as a weekly/monthly decision support/management and planning tool, a monthly reporting tool and a scenario modelling tool.
- Redsky will be used to develop the farms annual accounts to analyse our performance and provide a benchmarking measure for continuing business improvement. Redsky will be used in the design/development of future system/business planning through scenario modelling. Redsky may also be at times during the season to road test various strategies.
- DairyBase will be used to further record and report on standardised physical and financial information for the farm to track progress against short and long term goals, identify opportunities to improve and to benchmark/compare performance against peers.
- Weekly reporting of data captured and notes will be made available on website, Facebook and Twitter every week. Further reporting will be undertaken as and when required to communicate significant changes undertaken on farm.
- An annual Farm Governance Committee report will be undertaken in May reviewing success/failures/opportunities and challenges from the season's performance plan.

ii. Plan

Operational Objective: To ensure all farm management and commercial planning is supported by an economic business case, solid rationale and effective modelling.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Business plan	Develop business plan annually	May every year	Business plan signed off by Farm Governance Committee

Operational Objective: Set appropriate goals that reflect the strategy, objectives and development plans for Owl Farm, with time bound action plans and key performance indicators.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Owl Farm Performance plan	Review and update performance plan annually	May every year	• Owl Farm Performance plan signed off by Farm Governance Committee • Feedback provided on operational objectives by Farm Management Committee

Operational Objective: To ensure accurate and transparent reporting of success or failures of objectives is undertaken in line with agreed timeframes.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Owl Farm Performance review	Accurate and transparent reporting of results	May every year	Owl Farm Performance review signed off by Farm Governance Committee

Operational Objective: To ensure performance is reviewed in line with objective timeframes set out within Stage 1 Dairy Farm Performance Plan.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Owl Farm Performance review	Achieve policies, KPI's and ultimately operational objectives as set out within this plan within the desired timeframe	May every year	Owl Farm Performance review signed off by Farm Governance Committee

iii. Rationale

- Credibility is best achieved through doing what we say we will. Planning, reporting and monitoring is what makes us accountable to complete what we have set out to achieve.

b. Financial

i. Policies

- Farm operational budget will be completed annually in May and signed off by Farm Management Committee.
- A capital plan will be developed and presented to the Farm Governance Committee annually in January/February to reflect the financial year which the school operates within.
- Benchmarking will take place annually at the completion of the dairy season to validate several of the KPI's below. Westpac, Dairy Base and Redsky will be used as predominant benchmarking tools.

ii. Plan

Operational Objective: To optimise profit returned through balanced management within the farms existing management system			
KPI	**Target/Action**	**Timeframe**	**Measure**
FWE/kgMS	$3.50	2016/17	Modelling using Farmax. Reporting budget vs actuals. Benchmarking using Dairy Base and Redsky
EFS/ha	Top 10% of Waikato	2016/17– top 20% 20178/18 - top 10%	Modelling using Farmax. Reporting budget vs, actuals. Benchmarking against Westpac, Dairy Base and Redsky
Variance reporting	Within 5% of budget at any point within season for items over $50,000, within 10% for items less than $50,000	Completion of 2016/17 season	Against budget – monthly reporting to be undertaken and uploaded to owlfarm.nz

Operational Objective: Invest appropriately in capital development to enable improved productivity/profitability			
KPI	**Target/Action**	**Timeframe**	**Measure**
Capital improvements undertaken on farm	• Develop annual capital plan approved by the Farm Governance committee to take to the board for funding (~20% ROI minimum) • Effectively follow the plan in implementing the capital improvement • Regularly review progress against capital improvement plan	Annually in May	• Plan approved by board, funding made available to undertake projects. • Capital improvements implemented within timeframes outlined in plan • Capital improvements implemented within budget.

iii. Rationale

- **Effective Farm Surplus per hectare**
  - Effective farm surplus is made up of the income generated less the farm working expenses.
  - Not only does this include the income that is being generated from each hectare, but it also includes the cost associated with doing this. Thus including both productivity & profitability in the KPI.
  - Over and above straight productivity in terms of milksolids it also includes the additional income such as livestock income.
- **Farm Working Expenses per kgMS**
  - In the current environment of high volatility, particularly in the commodity markets, the key to operating a profitable farming business is control of costs, and more specifically the cost associated with the production of the output associated with that business. In the case of Owl Farm that is the farm working expenses associated with producing milksolids.
  - Therefore it is natural that a key performance indicator for any business looking to maximise profit is Farm Working Expenses per kgMS.
  - This ratio is able to be manipulated either through increasing productivity, or by reducing the total cost of production.
- **Variance reporting**
  - When focusing on profitability it is important that firstly budgets are set prior to the start of the financial year.
  - Budgets however are only of use when they are monitored regularly throughout & at the end of the financial year.
  - This monitoring allows for budgets to be updated & the remainder of the financial year forecasted.
  - Being able to set accurate budgets is an important part of the planning process for any season, and therefore being able to monitor that the actual performance is in line or better than budget is vital.
  - Variance reporting also gives important information when looking to set future accurate budgets.

- **Benchmarking**
  - It is key when doing financial KPI's that they are compared to industry so that performance for any business can be not only compared between seasons, but also compared within season & against others in the industry.
  - Benchmarking will also be done against the region to acknowledge the seasonal differences that can impact or benefit some regions and not others in a given year.
  - This also allows for the identification of the opportunity that exists between the top performer & the performance of the business.

c. Environmental

i. Policies

- Compliance is the minimum standard which will be achieved with all Waikato Regional council (WRC) and dairy industry rules and regulations (Sustainable Dairying: Water Accord – SDWA).
- All environmental management decisions will be supported using an evidence based approach.
- The farm will operate under an overarching Farm Environmental Plan, currently DairyNZ's Sustainable Milk Plan (SMP) template.

ii. Plan

Operational Objective: To ensure compliance with all regulatory and industry requirements			
KPI	**Target/Action**	**Timeframe**	**Measure**
Compliance with Effluent management rules	• Effluent storage compliant – sealing/capacity • Effluent application compliant	2016/17	• Opus Pond Drop test completed. New pond designed and plan for construction if failed • Pond capacity within 30% of Dairy Effluent Storage Calculator. • No ponding of effluent in paddock post application.
Nutrient management	• Nitrogen Management recording pages completed and submitted	Submitted annually in June	Supply Fonterra Nitrogen Report.
Water Use	• Install water meters and record daily water use for both shed use and stock drinking	Monthly	Water use report (made available on www.owlfarm.nz)

Operational Objective: To implement sound science supported environmental management systems to achieve sustainable growth and profit while protecting the wider environment.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Good Practice Effluent Management	Develop effluent management plan	2016/2017 review in May annually there after	Completed monthly checklist.
Good Practice Nutrient Management	Develop nutrient management plan incl. fertiliser recommendations based on annual soil testing	2016/2017 review in annually in May there after	• Use Overseer • Same/reduction in nitrogen leaching • Nitrogen use efficiency • Proof of placement fertiliser maps.
Efficient dairy shed water use	Eliminate wastage through the dairy shed through developing a water use protocol	2016/2017 review in annually in May there after	• Variation 6 consent volume as benchmark with incremental improvements from there • Comparison to Waikato benchmark data

Operational Objective: To engage with stakeholders to lead towards sustainable farming objectives while influencing future direction.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Increase engagement levels with WRC and WRA	• Identify what WRC/WRA targets are for farmers or what they want from us with assistance in communicating these objectives to the wider Waikato dairying community • Ensure targets of the Healthy Rivers Plan for Change are well communicated.	2016/2017	Targets are known and incorporated into future plans.

Operational Objective: To show leadership in establishment of biodiversity management practices relevant to the Waikato.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Design and construct a treatment wetland with water quality monitoring.	To identify an improvement in water quality leaving the farm	2016/17	Water quality data published on Owl Farm.
To increase areas of biodiversity on farm and provide habitat for the fauna that they support	Incorporate further collaborative native planting schemes on non-productive land.	2016/17 – 1ha 2017/18 – 3 ha	• Eco-blitz • Biodiversity inventory

iii. Rationale

- **To implement sound science supported environmental management systems to achieve sustainable growth and profit while protecting the wider environment.**
    - Increasingly negatively public perceptions and deteriorating national water quality trends continues to impact the dairy industry. As one of the key strategic objectives of Owl Farm our environmental performance will be keenly observed and scrutinised by our external audience. At the highest level Owl Farm aspires to be leaders in the environmental space and wants to achieve good management practice at all levels.
- **To ensure compliance with all regulatory and industry requirements**
    - Legally and morally we must comply with rules and regulations.
- **To engage with stakeholders to lead towards sustainable farming objectives while influencing future direction.**
    - Collaboration is more frequently being used to describe how we must collectively move towards achieving the environmental outcomes we are communities are trying to achieve. We need to set an example through working with the wider community to achieve these objectives.
- **To show leadership in establishment of biodiversity management practices relevant to the Waikato**
    - The water quality problem is now well defined and understood, we now need further solutions to help manage these problems on farm. Farmers are looking to industry for solutions/options to help manage their environmental impact.

d. People

i. Policies

- Owl Farm is committed to taking all reasonably practicable steps to provide a safe and healthy work environment for workers, visitors and others directly influenced or affected by any Owl Farm work activity or workplace location
- On farm systems and practices will align with the objectives set out within the Sustainable Dairying: Workplace Action plan.

ii. Plan

Operational Objective: To implement best practice in people management			
All detail regarding targets/actions below can be found within the Sustainable Dairying: Workplace Action Plan – see appendix			
KPI	**Target/Action**	**Timeframe**	**Measure**
Balanced and productive work time	Employees working on a well -designed roster.	2016/17	Review hours worked in line with roster using facial recognition camera information
Fair remuneration	Competitive wage and salary rates are based on first meeting the legally required minimum standards	2016/17	Benchmark using DairyBase and Red Sky?
Wellness, Wellbeing, Health and Safety	Develop and implement effective health and safety plan	2016/17	• Reported incidents • Reported near misses • Feedback on team culture?
Effective Team culture	Employees are valued as integral to a profitable, sustainable and enjoyable business.	2016/17	• Employee feedback • Weekly team meeting • Staff turnover • Shared goal setting
Rewarding careers	Retention of people in the dairy industry is highly valued	2016/17	Quarterly performance reviews and development plans.

Operational Objective: To develop and implement best practice health and safety systems and build a culture that ensures staff, contractors and any other visitors are protected as much as practicably possible while on farm.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Health and safety plan	Completed and in place	2016/17	Operative Health and safety plan
Hazard/risk management	All Hazards identified and controls in place	2016/17	Hazard controls in place for all known hazards.
Accident and near miss reporting	All reported and controls put in place where necessary.	2016/17	Accident and near miss reporting
Injuries	No missed work as a result of on-farm accidents	2016/17	Days of work

i. Rationale

- **To implement best practice in people management**
  - **Balanced and productive work time**
    - Dairying has strong variations in seasonal work demands, which sometimes call for long hours and exceptional effort. However, exceptional circumstances should not be embedded as the norm.
    - Research shows people working long hours or too many days consecutively, drop off in performance and they are more likely to make mistakes and have accidents. Fatigue and poor work/life balance may mean they are more likely to leave their job.
  - **Fair remuneration**
    - Quality work environments meet legally required minimum standards and to attract and retain good people they must be paid fairly for the work they do, based on their skills, experience and responsibilities.
  - **Wellness, Wellbeing, Health and Safety**
    - Employers are responsible for ensuring their employees are working in a safe and healthy workplace and can do their work in a safe and healthy way. This needs active management. Employees have a part to play in this too but the leadership must come from employers. Our industries safety record is currently poor and the rate of burnout and suicide completely unacceptable.
  - **Effective Team culture**
    - Dairy farms require a team of people to be successful. In some cases that team is made up of a farming family, in others it's a farmer working with their accountant and vet, and on more and more farms it is an employer working with their employees.
    - Whatever the scenario, working with positive and motivated people is great for both enjoyment of a job and performance of a business. Having the right mix of people and talent is important for efficiency, effectiveness and fun.
  - **Rewarding careers**
    - Dairy farming has traditionally been a job where you could start at the bottom and work towards farm ownership. This is still possible but most people in dairy farming are now employees.
    - We need to make working on farm attractive to people, and we need to retain them in our industry whether they want to climb from farm assistant to operations manager or be an outstanding farm assistant long term. There should be a place for people with all types of career aspirations on our farms.

- **To develop and implement best practice effective health and safety systems and build a culture that ensures staff, contractors and any other visitors are protected as much as practicably possible while on farm.**
    - People are the most important aspect to our farming business. Ensuring all staff and visitors are safe and healthy well on farm must be the number 1 priority.

e. Herd Performance

i. Policies

- Animal welfare code is the minimum standard in which stock are managed.
- Dry cows off according to calving date - minimum of 60 days out of milk, minimum body condition score of 4.5 with average pasture covers of 2200.
- Herd structure for small herd (~150 cows) determined as follows
    - From calving to early January – Once sufficient cows have calved first calvers and lowest condition score cows. As condition scoring occurs monthly, the lowest condition score cows could be removed as required between herds
    - From early January to beginning of March. Early calving and light condition score cows become the small herd.
    - Through March (depending on seasonal conditions) The small herd make up is reversed with the well - conditioned cows, empties and culls put together into the small herd. These cows largely follow the main herd, with the main herd grazing the majority of the available feed and the small herd immediately following to take the paddocks down to desired grazing residuals (or distant paddocks)
    - As empties and culls leave/ also as lighter cows dried off – herd may become a single herd
- Cows will be condition scored monthly.

ii. Plan

Operational Objective: To capitalise on genetic merit of herd with regard to per cow production			
KPI	**Target/Action**	**Timeframe**	**Measure**
Per cow production	95% of body liveweight - >450kgMS/cow	• 2016/17 - >425kgMS/cow • 2017/18 - >450kgMS/cow	Fonterra milk receipts

Operational Objective: To achieve or exceed industry targets for mating performance			
KPI	**Target/Action**	**Timeframe**	**Measure**
Pre mating cycling	75% (10 days out from planned start of mating)	2016/17	Minda
Submission rates	90% in first 3 weeks	2016/17	Minda
Conception rates	60%	2016/17	Minda
6-week in calf rates	78%	2016/17	Minda
Use of intervention	TBC		

Operation objectives: To meet or exceed all recognised industry standards regarding body weights and condition within a profitable system			
KPI	**Target/Action**	**Timeframe**	**Measure**
Calf weights	Industry targets	2016/17	Minda weights
Heifer weights	Industry targets	2016/17	Minda weights
BCS @ drying off	4.5 BCS	2106/17	Monthly BCS
BCS cows @ calving	5 BCS	2016/17	Monthly BCS
BCS Heifers @ calving	5.5 BCS	2016/17	Monthly BCS
BCS throughout season	TBC		

Operational objective: Use data to measure effectiveness of actions and make information readily available			
KPI	**Target/Action**	**Timeframe**	**Measure**
Data collection	All information is recorded in a timely manner that allow monthly Minda reports to be generated with accuracy at the beginning of following month.	2016/17	Minda
Minda	Use Minda reports to measure effectiveness of actions and promote Minda through making reports publicly available.	2016/17	Minda reports uploaded to website for calving, mating and animal health.

Operational objective: Effective health control is optimised through preventative treatments and any immediate health issues are treated as a priority			
KPI	**Target/Action**	**Timeframe**	**Measure**
TBC	•	•	•

Operational objective: To adopt practices in line with the animal welfare code			
KPI	**Target/Action**	**Timeframe**	**Measure**
Bobbie calves	Ensure best practice guidelines are strictly adhered too	2016/17	Systems, structures and infrastructure review
TBC	•	•	•

iii. Rationale

- **To capitalise on genetic metric of herd with regard to per cow production**
  - We need to capitalise on St Peter's investment in reproduction and justify our herd's 5%BW position nationally. Per cow performance will be a significant metric in which our performance is measured externally and therefore key to our credibility.
- **To achieve or exceed industry targets for mating performance**
  - As a demonstration farm farmers will be expecting us to excel in this area particularly given our close relationship with LIC.
- **To meet or exceed all recognised industry standards regarding body weights and condition within a profitable system**
  - To ensure the herd is performing to their potential in all aspects of production, reproduction and calving hitting optimal body condition at critical times is crucial.
- **Use data to measure effectiveness of actions and make information readily available**
  - As a demonstration farm without the data to back up management decisions there is no ability to effective communicate the effectiveness of decisions.
- **Effective health control is optimised through preventative treatments and any immediate health issues are treated as a priority**
  - Minimise animal health issues and time spend out of the herd. There is both a perception and production benefit to be had here.
- **To adopt practices in line with the animal welfare code**
  - Need to demonstrate leadership in this space given the impact this has on public perception surrounding the dairy industry.

f. Soils

i. Policies

- Soil testing undertaken annually in Autumn based on Industry guidelines
- Visual Soil Assessment (VSA) completed to track physical and biological soil parameters on an annual basis in three (yet to be determined) sites across the farm

ii. Plan

Operational Objective: To optimise soil fertility and protect soil physical conditions which will underpin home grown pasture and crops			
KPI	**Target/Action**	**Timeframe**	**Measure**
Soil fertility	• At Industry guideline levels for macronutrients	• 2016/17 – 80% • 2017/18 – 100%	• Soil testing • Overseer model
Soil health	• Baselined and tracked over time	• 2016/17	• Visual Soil Assessment

Operational Objective: To review and enhance Nutrient use efficiency over time			
KPI	**Target/Action**	**Timeframe**	**Measure**
Nutrient Use Efficiency	• TBC	• 2016/17 • 2017/18	• Overseer model

Operational Objective: To actively strive to avoid physical damage to the soil from pugging or mechanical means			
KPI	**Target/Action**	**Timeframe**	**Measure**
No visual damage	Develop strategy to minimise pugging, e.g. identify low risk soils, cropping paddocks that could work as sacrifice areas, etc.	• 2016/17	Less than 2% of farm damaged due to pugging/compaction.
		•	

iii. Rationale

- **Soil Fertility**
  - Scientifically based objective assessment of the soil macro nutrient levels are crucial to ensure we are optimising home grown feed. Need to protect and enhance capital asset.
- **VSA Score**
  - Assesses the physical and biological soils aspects which can be compared between sites on the farm and over time

g. Pasture, crops and feeds

i. Policies

- Weekly pasture metering will be undertaken to determine average pasture covers, average growth rates and pre/post graze residuals of all effective dairy paddocks.
- kgDM harvested per ha/yr will be analysed on an annual basis at the completion of each season as an essential physical KPI for the business, using the same calculation method for each year.
- A pasture condition scoring exercise will be undertaken annually as an objective measure of pasture condition.
- 10% of the farms effective milking area will be put through a pasture renovation strategy, this will involve the use of short term annuals and summer cropping.
- Pasture herbage tests will be undertaken annually as another way to check mineral levels required for plant growth and to assess what is being consumed by livestock.

ii. Plan

<table>
<tr><td colspan="4">Operational Objective: To optimise pasture grown and pasture harvested so that cows consume as much metabolisable energy as practical from grazed pastures and supplements</td></tr>
<tr><td>KPI</td><td>Target/Action</td><td>Timeframe</td><td>Measure</td></tr>
<tr><td>kgDM pasture consumed per ha/yr*</td><td>• 11,975 kgDM
• 12,550 kgDM
• 13,700 kgDM</td><td>• 2015/16
• 2016/17
• 2017/18</td><td>• Annual kgDM pasture harvested/ha/yr report providing individual paddock and collective farms performance (kgDM/ha)
• Retrospective energy calculation through Redsky/DairyBase</td></tr>
<tr><td colspan="4">* “Consumed” pasture includes pasture harvested by grazing cows (and/or young stock), and conserved as silage or baleage during periods of genuine surplus and/or as a means to control pasture quality.</td></tr>
<tr><td>Gigajoules (GJ) consumed per ha/yr*</td><td>• Measure both kgDM/ha of pasture and sample MJME/kgDM
• TBC</td><td></td><td>•</td></tr>
<tr><td colspan="4">* amount of pasture (kgDM/consumed/ha/yr) x energy density of pasture (MJME/kgDM)</td></tr>
<tr><td>Pasture cost per tonne of DM</td><td>TBC</td><td></td><td></td></tr>
<tr><td>Pasture condition scoring</td><td>Proportion of
• score 1
• score 2
• score 3
• score 4
• score 5</td><td>16/17
0
9
30
55
6
17/18
0
5
25
60
10
18/19
0
3
20
65
12</td><td>Annual pasture condition report</td></tr>
<tr><td>% of pasture development and re-grassing undertaken per year</td><td>10% of pasture renewed annually</td><td>2016/17</td><td>Farm modelling in budgets</td></tr>
</table>

Operational objective: To integrate strategic use of supplementary feed when there is a genuine feed deficit and where there's a clear financial return.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Weekly farm drive	• Calculate pasture supply vs demand • Start, stop or continue use of supplements as appropriate when pasture supply does not equal demand • Partial budget to justify cost benefit (late lactation)	Immediate and ongoing	• Post grazing residual targets are reached when supplements fed • Supplement wastage is within acceptable targets • Cow BCS is appropriate (feed deficits offset in timely manner)

Operational objective: To effectively utilise PKE within the Owl Farm businesses			
KPI	**Target/Action**	**Timeframe**	**Measure**
Minimise PKE wastage	• Only feed during true feed deficits • Appropriate filling of trailers • Keep dry where practicable	Immediate and ongoing	• Monitor post-grazing pasture residuals • Assess PKE on ground paddock & loading • Monitoring of bunk area for signs of moisture/spoilage
Minimise pasture damage around trailers	• Minimise trampling damage • Placement of trailers drier area, laneways etc, move on as needed	Immediate and ongoing	• Assess pasture damage especially wet weather • Avoidance of undersowing or repair to pasture
Respond to requirement for mineral adjustments	• Avoid copper accumulation	Immediate and ongoing	• Monitor copper status with vets • Avoid additional copper supplementation when feeding high rates PKE
Respect & Respond to Fonterra usage directives	• Do not exceed 3kg PKE/cow/day	Immediate and ongoing; adjust as directed by Fonterra	• Weekly & Monthly review of inventory of PKE fed

Operational objective: To effectively utilise maize silage (MS) within the Owl Farm businesses			
KPI	**Target/Action**	**Timeframe**	**Measure**
Minimise MS wastage	• Appropriate inoculants, rolling & packing • Good face management • Appropriate feedout methods on ground • Only feed during true feed deficits	Immediate and ongoing	• Assess new stack face for adequacy of packing • Feed test new stacks • Monitor stack face for spoilage/heating • Assess wastage of maize in paddock • Monitor post-grazing pasture residuals
Minimise pasture damage in paddock	• Feed along fencelines	Immediate and ongoing	• Assess pasture damage, evidence of maize 'burn' • Avoidance of undersowing or repair to pasture
Respond to requirement for mineral adjustments	• Offset MS nutritional limitations appropriately • Calcium, sodium, magnesium	Immediate and ongoing	• Monitor mineral status with vets • Appropriate mineral supplementation as directed

Operational objective: To effectively utilise pasture baleage within the Owl Farm businesses			
KPI	**Target/Action**	**Timeframe**	**Measure**
Minimise baleage wastage	• Appropriate harvest decisions, wilting & baling • Appropriate feedout methods on ground • Only feed during true feed deficits	Immediate and ongoing	• Assess new bales for adequacy of packing • Feed test new lines of bales • Assess wastage of baleage in paddock • Monitor post-grazing pasture residuals
Minimise pasture damage in paddock	• Feed along fencelines	Immediate and ongoing	• Assess pasture damage, under feedout areas • Avoidance of undersowing or repair to pasture

iii. Rationale

- **kgDM pasture consumed per ha**
  - KgDM harvested per ha/yr is a key focus for Owl Farm given the strong, positive association between kgDM of pasture harvested vs. profitability of pasture-based businesses such as Owl Farm
  - Future pasture harvested KPI targets that could be reasonably adopted for use by Owl Farm might be the top 10% of Waikato dairy farms as nominated by redsky modelling.
- **Gigajoules (GJ) consumed per ha/yr**
  - Slower rates of paddock development (including but not limited to drainage work, addressing of capital fertiliser requirements and soil pH remediation where relevant), regrassing and pasture development will extend the timeline over which this KPI may be reached because:
    - Strategies with slower paddock development and pasture renewal rates result in pastures that are older on average and hence lower yielding.
    - 'New pastures' decline in yield over time therefore a slower renewal rate of recently renewed pastures will slow rate of improvement across the entire farm.
- **Pasture condition scoring**
  - This will be an annual process undertaken to build a measure of pasture improvement over years to come.
  - Proportion of paddocks in each category could be included as an ongoing and future series of KPI's for the Owl Farm Business.

h. Community engagement

i. Policies

- Four Farm Focus days will be held annually
- Website, Facebook and Twitter will be updated weekly
- One Owl Farm Public Open Day to be held annually.

ii. Plan

Operational Objective: To establish Owl Farm so as to develop and demonstrate good practice in pasture based dairy farming systems and to transfer them to dairy farms.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Farmer engagement	• People attending focus days • People attending technical workshops • People visiting owlfarm website • Views and followers on Facebook/Twitter	2016/17	• Average of 200 attendees at focus days • Return attendees • 2+ a year • 200 farm visitors outside of focus days • Views on website • 500 followers on Facebook/Twitter
Farmer behaviour change	Influence positive change on others farms.	2016/17	• Farmer survey • More people at focus days • Return attendees
Visibility	Regular exposure through Waikato Times and Farming magazines.	2016/17	• Continued invitation to provide monthly editorial material. • Continued presence of reporters at Farm Focus Days.

Operational Objective: To develop and implement a communications plan to engage the wider community around what we are doing and why.			
KPI	**Target/Action**	**Timeframe**	**Measure**
Annual communications plan	Review and update communications plan annually	May every year	• Owl Farm Performance plan signed off by Farm Governance Committee • Feedback provided on operational objectives by members of the Farm Management Committee

Operational Objective: Contribute to building positive perceptions around dairying			
KPI	**Target/Action**	**Timeframe**	**Measure**
More public have been exposed to Owl Farm and dairying.	• Public open day held annually • Exposure to farming practices through information boards along walk way • Community planting days	2016/17	• Number of people attending open days and community planting events.
Engagement with local primary schools	Increased number of younger students visiting the farm	2016/17	TBC

iii. Rationale

- **To establish Owl Farm so as to develop and demonstrate good practice in pasture based dairy farming systems and to transfer them to dairy farms.**
  - As a demonstration farm this is absolutely critical to our credibility.
- **To develop and implement a communications plan to engage the wider community around what we are doing and why.**
  - Need a structured and effective way of communicating what we do, how we do it and why we do it to ensure uptake of strategies by the farmers and rural professionals. This is also significant in building positive perceptions around dairy farming within urban communities.
- **Contribute to building positive perceptions around dairying**
  - Perception is reality and with communities determining the way in which we use our resources going forward it will be crucial to the dairy industry's future licence to operate that we bring the urban population along on the journey with us and demonstrate the good work that is being undertaken at all levels within the dairy industry.