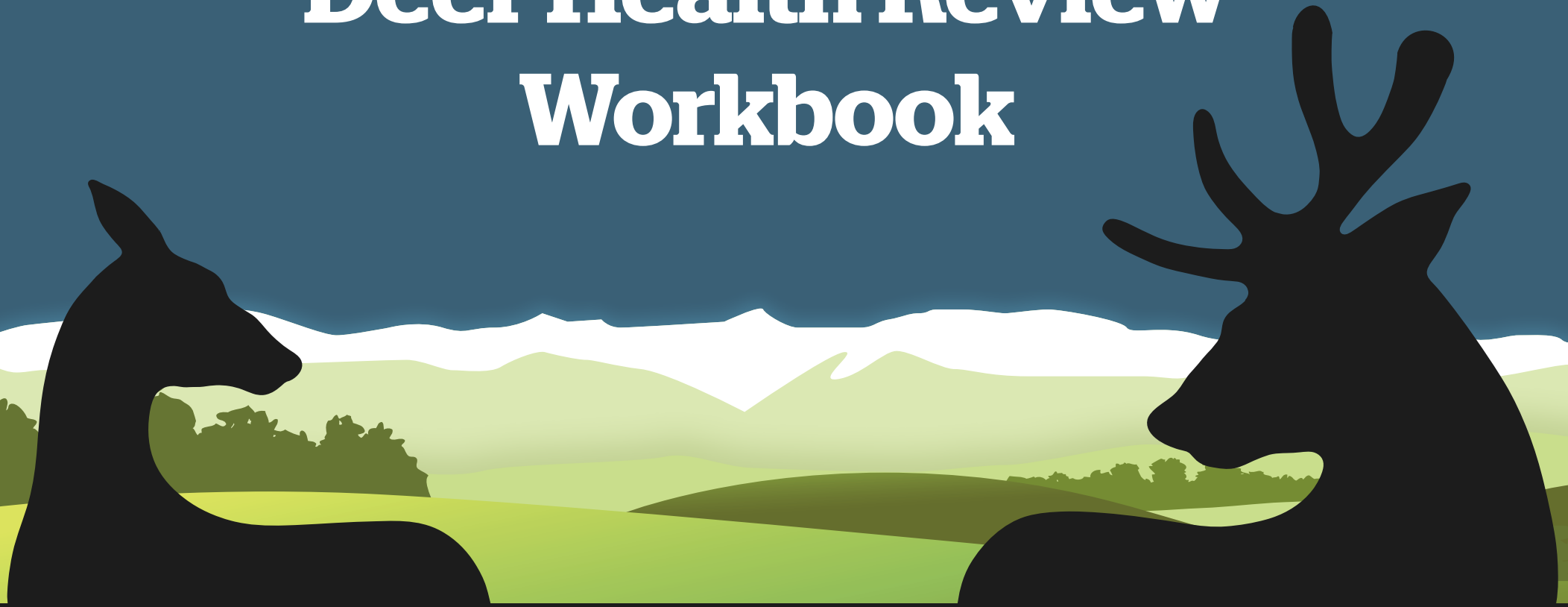


Deer Health Review Workbook



Introduction

A refreshed approach to health planning.

Aim: Healthy deer achieving optimal performance through proactive, cost-effective health management.

The Deer Health Review Process

A Deer Health Review is a process that looks at production performance and health risks, evaluates management options and identifies the most appropriate actions. It results in the development of a personalised documented plan detailing on-farm policies for key health issues and actions to be undertaken.

Why do a Health Review of your deer?

A Deer Health Review captures overall health stewardship, ensures health spend is targeted for optimum profitability, and clearly details the what, why, when and by whom of on-farm health management.

It also provides a basis for regular review, and allows clear communication for those involved, including farm owners, staff, farm consultants, and veterinarians.

What you will get out of it

- A comprehensive plan for managing your deer health
- An action plan that will result in more information to base decisions on
- Incremental gains in production performance as you manage risks and target spend based on defined need
- A document that forms the basis of ongoing review

Details:



Farm Name:

Date of Review:

Your Name:

Name of Vet:

The Three Steps

This workbook guides you through the process of doing a health review. It is recommended that you complete it with your veterinarian.

1

Preparation and Performance Review

Information-based decision making. The more specific you can be about performance and target setting, the more directed the next steps can be.

2

Risk Assessment and Disease Management Review

The 'engine room' of this review. This step helps identify key areas for action and where priority spending can be focussed

3

Actions - Plan, Do, Review

This step is crucial for success. An action plan will be created that keeps everyone on task, and provides a basis for review.



Action required



Information and tips



Text area for you to fill in

Preparation and Performance Review

Step 1

In this step you will do the ground work that provides context to the health review. Having a clearly defined set of goals and identifying where gains can be made helps prioritise actions.

Goals



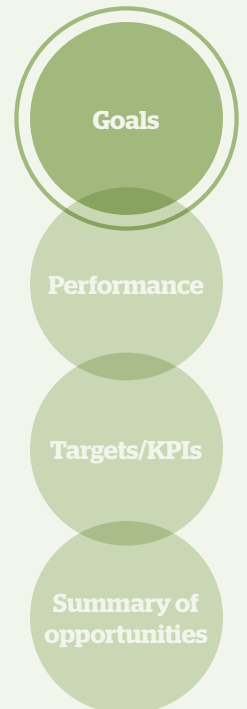
List and describe deer farm goals (*consider short and long term goals*)

Examples:

Short term: Hill block subdivision to allow increased options for hinds and velvet stags

Medium term: Grow hind numbers to 1500

Long term: Have 75% of Stock Units on farm in Deer



Performance

Step 1

In preparation for a review of production performance you can use this checklist to help you gather together relevant data and detail.

Checklist:



On farm

- Stock tallies
- Key dates
- Weights
- Growth rates
- Scanning results
- Condition score results
- Death records
- Annual Venison Production Record
- Annual Velvet Production Record

Vet

- Veterinary reports (Trace elements, post-mortem results)
- Season Vet Spend
- Season Product Use

Outside the farm gate

- Killsheets
- JML / DeerPro reports



Performance Measurement

Step 1

Once you have gathered your farm production data, the next step is to turn that data into useful information to help with making good decisions.

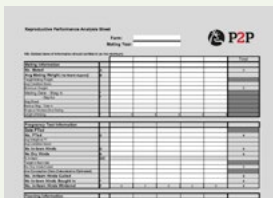
The tools on the Deer Hub at deernz.org can be used to help you manage your farm data and help measure performance and set targets. These tools can be used interactively or can be printed off. Using the spreadsheet formats of these tools is easy, the calculations are done for you. Take a look at the following tools, plus many more on the deernz.org website Deer Hub Tools section.



Tools



Actions

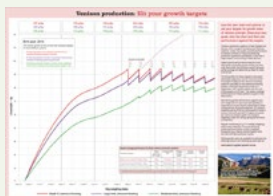


Deer Performance Worksheets

<http://deernz.org/benchmarks#.WRI-E1J7EUE>

These spreadsheets, available for various deer enterprises, help you turn multiple bits of data into overall measures of performance which can then be measured against targets. These spreadsheets are designed so you do not have to enter every detail to get useful results.

Velvet Producers: The velvet performance analysis sheet is a great way to record velvet performance and set targets.



Venison Growth Curve

<http://deernz.org/deer-growth-curves#.WRI-QIJ7EUE>

Use the online calculator or the poster to set plot weights and set targets appropriate for your production system, and desired kill profile. Then monitor mob weights against these targets.



Replacement Hind Growth Curves

<http://deernz.org/deer-growth-curves#.WRI-ZVJ7EUE>

This calculator helps monitor replacement hind weights and calculates probable conception rates based on mob average weights at time of stag joining. This can assist in managing feed requirements for young hinds to achieve targets weights.

Goals

Performance

Targets/KPIs

Summary of opportunities

Targets and Key Performance Indicators

Step 1

The measures of productivity that are common to breeding-finishing farms and are impacted most by animal health are shown in the table below. Use this table to record your own farm performance and targets for these measures.



KPI	Definition	Description	Season Actual	Your Farm Target	Example of good performance
Mating Efficiency	Number of in fawn hinds divided by number of hinds mated	Reflects conception rate			97%
Herd Efficiency	Kg of fawns on 1st March divided by Kg liveweight of hinds wintered	Reflects conception rate, growth rate and, survival from conception to weaning			0.51
Weaning Percentage	Number of fawns weaned divided by number of hinds present	Reflects fawn survival from hinds retained in herd and are present at weaning			93%
Pre-weaning growth rate g/d		From assumed birth weight and date			410g/d
Average growth rate birth to slaughter g/d		Indicates efficiency of finishing			256g/d
Death rate %	Number of deaths divided by total number of deer present at start of the season (Plus total live births)	Can be broken down into stock age groups (Rising 1 year, Rising 2 Year, Mixed Age).			Less than 2%



Targets and Key Performance Indicators (cont.)

Step 1

Use the table below to record further KPI's specific to your enterprise.



KPI	Your current Performance	Your Farm Target for next season	Your Long Term Farm Target
<i>Example line: Autumn weaner growth rate</i>	<i>150g/d</i>	<i>200g/d</i>	<i>300g/d</i>



Velvet production systems will often have their own specific targets for which there are no industry benchmarks as such. These targets can be captured here.

Summary of Opportunities

At the end of this step you should have clearly documented your deer farm goals, targets and production opportunities.

Having identified where there are opportunities to improve production, the next step helps identify which health issues may be affecting performance.

Step 1

Goals

Performance

Targets/KPIs

Summary of opportunities

Step 1 complete.

Don't forget to save as you go!

Risk Assessment and Disease Management Review

Step 2

When looking to prevent and manage disease, there are different motivations including but not limited to; profit, welfare and the satisfaction of knowing your deer are healthy. To manage deer health in a profitable way you have to establish that the disease is (or could be) affecting performance, decide what level of risk you are willing to accept and look at options for prevention and management to ensure the most profitable option is selected. It is also important to look at the longer term sustainability of the management practices to ensure efficacy is maintained.

By the end of this step you will have assessed the risks posed to your deer by each disease, prioritised the key deer diseases to be managed on your farm, reviewed the current management of those diseases and identified where more information is needed.



Risk Assessment

In this step you will conduct a risk assessment of the diseases which could be limiting production on your farm.

When assessing the risk of each disease/issue the three key areas to consider are:

Risk to animals

- Production (clinical and subclinical disease)
- Animal value (commercial vs stud stock)

Risk to people

- Is this a disease people can get (zoonosis)? Is this a health and safety risk?

Risk to the business/reputational risk

- What impact does/would this disease have on the business

How to complete the risk assessment table: (featured on the next page)

For each disease in the table complete the following:

Part 1: In the NATURAL RISK column, rate from 1-10 (**1 being no risk** and **10 being extreme risk**) the risk to production/health from this disease/issue if you were to do nothing to prevent or manage it on your farm.

Part 2: In the CURRENT RISK column, rate from 1-10 (as defined above) the risk that remains with the current management in place

Part 3: Rate the diseases in terms of priority management for your farm.

This is designed to be a quick exercise, without getting too involved in detail. You will look deeper into management of each disease in the following pages of the workbook.



Risk Assessment Table

Step 2



DISEASE/ISSUE	NATURAL RISK	CURRENT RISK	PRIORITY FOR MANAGING
Internal Parasites			
Johne's Disease			
Leptospirosis			
Yersiniosis			
Injury/Misadventure			
Fusobacteriosis (Foot Abscess)			
Trace Element Deficiencies			
Clostridial Disease			
Facial Eczema			
Ticks			
Other			



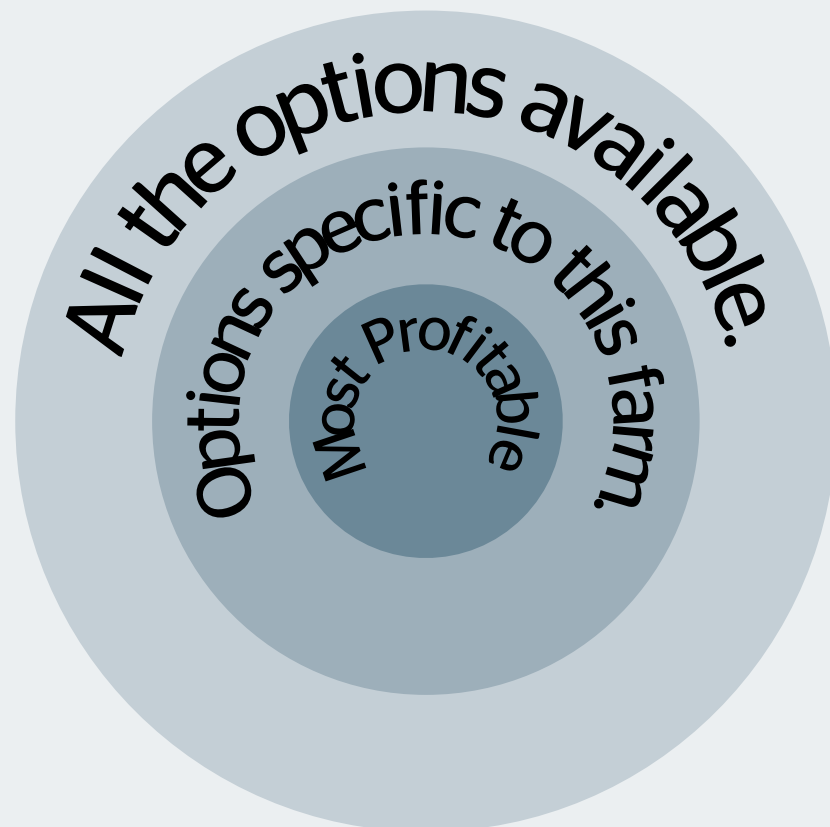
For a list of risk factors for each of these diseases [click here](#). Further information can be found in the Deer Facts publication in your folder or online on deernz.org

Step 2

Disease Management Review

This step involves reviewing the management of all the relevant diseases, to ensure each is being managed in the most effective, profitable way.

Your veterinarian can help you work through the costs and benefits of different management options, to help you make decisions based on what will be the best options for you.



Step 2



Ask These Important Questions

When filling out this table it is important to ask some probing questions.

Information-based health management focuses on addressing the root cause of problems and identifying a true need for any health intervention.

When considering how you manage health issues, ask yourself the following questions

- Why do we do this?
- Do we need to be doing this?
- How do we know if we need to or not?
- Can we monitor for this disease/issue?
- Is this the best way for us to manage this disease?
- What are other management factors that influence how we manage this disease/issue?



Disease management worksheets

Fill in the disease worksheets appropriate for your farm on the following pages.

Risk
assessment
table

Disease
management
Review

Biosecurity

Internal Parasites

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

Internal Parasites
Johne's Disease
Leptospirosis
Yersiniosis
Injury/Misadventure
Fusobacteriosis
Trace Element Deficiencies
Clostridial Disease
Facial Eczema
Ticks
Other



Johne's Disease

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Leptospirosis

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

Internal Parasites
Johne's Disease
Leptospirosis
Yersiniosis
Injury/Misadventure
Fusobacteriosis
Trace Element Deficiencies
Clostridial Disease
Facial Eczema
Ticks
Other



Yersiniosis

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Injury/Misadventure

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Fusobacteriosis

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Trace Element Deficiencies

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Clostridial Disease

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Facial Eczema

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Ticks

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



Other

Step 2



CURRENT MANAGEMENT	OTHER MANAGEMENT OPTIONS
COST vs BENEFIT	AGREED MANAGEMENT
FURTHER INFORMATION NEEDED:	

- Internal Parasites
- Johne's Disease
- Leptospirosis
- Yersiniosis
- Injury/Misadventure
- Fusobacteriosis
- Trace Element Deficiencies
- Clostridial Disease
- Facial Eczema
- Ticks
- Other



So far...

You have assessed the risk for each disease for your farm, and made decisions on how you will manage these risks for the season ahead. Often more information may be needed to help you make a final decision. This workbook can be updated regularly as new information and monitoring results become available and progress is made.

The next stage of the workbook documents who will be responsible for the management actions you have agreed

Step 2

Risk
assessment
table

Disease
management
Review

Biosecurity

BIOSECURITY

Animal Health forms an integral part of an on-farm biosecurity plan.

The importance of on-farm biosecurity

On-farm biosecurity is in important link in the integrity of our country's overall biosecurity. By taking steps to protect your farm business, you are also helping to protect the primary industry, the environment, animal welfare and the New Zealand economy.

The work done during this Health Review process so far is useful when formulating or revising your own biosecurity plan. Similarly, formulating an on-farm biosecurity plan can help crystallise future health management decisions. The two plans are synergistic and should be reviewed together

The key intervention points of an on-farm biosecurity plan:

1. Livestock movements
2. Animal Health Management
3. People and Equipment
4. Feed and Water
5. Pest Control
6. Animal Waste and carcass management
7. Shared knowledge and understanding

Step 2

Risk
assessment
table

Disease
management
Review

Biosecurity

Step 2

Biosecurity

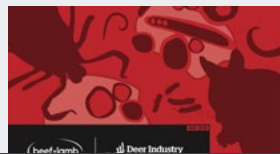
Pan-industry initiatives have led to a wealth of tools to help farmers develop robust biosecurity plans. Seek the advice and support of rural professionals to create a comprehensive biosecurity plan for your farm. Make it part of your culture, and lead by example.

The following resources are available to help:



Biosecurity Learning Module

<https://beeflambnz.com/knowledge-hub/module/farm-biosecurity>



Biosecurity Guidelines

<https://beeflambnz.com/knowledge-hub/PDF/FS067drystock-biosecurity-guidelines>



Biosecurity Farm Plan

<https://beeflambnz.com/knowledge-hub/PDF/biosecurity-farm-plan.pdf>



Further resources, podcasts and tools on the Beef and Lamb Knowledge Hub

https://beeflambnz.com/knowledge-hub/search?term=biosecurity&field_topics=All&type=All



Deer Fact

https://deernz.org/sites/dinz/files/DeerFact_ExoticDiseases_Web.pdf



Risk assessment table

Disease management Review

Biosecurity

Step 2 complete.

Don't forget to save as you go!



Tools

Actions – Plan, Do, Review

Step 3

This last step involves pulling together the actions from the previous steps to create an action summary.

It is recommended this process is done with your vet, who can provide you with a report of the discussion. This report from your vet should include:

- A summary of the details in this workbook
- A summary of each disease relevant to your farm including treatment details, schedules, withhold times and monitoring plans.

The simple calendar at the end of this workbook can be used to record key dates and actions to be done. Your vet can also work with you to create an appropriate health and management calendar for your farm. This can include actions that were captured in your action summary and should include dates for reviewing treatment efficacy.



Action Summary

Step 3

Use the Action Summary Table below to capture what the agreed actions are. Include actions for management changes, monitoring and finding out more information.



What	Who	When	Done	Notes
<i>Example line: Book in Liver biopsies</i>	<i>Vet Richard</i>	<i>April</i>		<i>Richard to ring Bob with dates</i>



Action Summary Table (page 2)

Step 3



What	Who	When	Done	Notes



Step 3

Review

The value of health planning comes with analysing the outcomes of the health interventions to check their effectiveness. This should be an ongoing discussion with your vet. For example you might choose to meet with your vet quarterly to have a planning discussion about the key health management areas in the upcoming quarter.

Often there will be changes to the plan from year to year, as actions are completed and circumstances change. Reviewing your health management every year allows plans to evolve and grow as progress is made.



Farmer review of action plan

Dates:

Next Deer Health Review with Vet

Dates:

Action
Summary

Review

Step 3 complete.

Don't forget to save!

Calendar - Quick Notes



January

February

March

April

Week 1

Week 2

Week 3

Week 4

Week 5

Calendar - Quick Notes



	May	June	July	August
Week 1				
Week 2				
Week 3				
Week 4				
Week 5				

Calendar - Quick Notes



September

October

November

December

Week 1

Week 2

Week 3

Week 4

Week 5

The Deer Health Review Workbook is developed and produced by the Passion2Profit Programme. Passion2Profit is a Primary Growth Partnership jointly funded by Deer Industry New Zealand and the Ministry for Primary Industries.

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