

# Down To Earth Research

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**Dairy Research & Development Corporation  
GippsDairy, WestVic Dairy & SDP**

**Evaluation of Lameness Knowledge,  
Prevention and Control Practices  
Undertaken in Some Dairy Herds**

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**Appendix 1: Questionnaire**

## **Executive Summary**

## Executive Summary

### Background and methodology.

This project was conducted to evaluate the incidence of lameness in some dairy herds in Gippsland, Western Victoria and Queensland and farmer knowledge of causes, prevention and treatment.

One hundred and fifty (150) Computer Assisted Telephone Interviews were conducted with dairy farmers who responded to an offer of a lameness poster in return for participating in the survey.

This method of obtaining a database was selected due to an extremely limited budget being available for the project. It means there is bias in the sample, and results may not be representative of dairy farmers in general, an important point which readers should take into consideration when reading this report. The sample does however, provide a database of people looking for information on lameness whose knowledge and behaviour can be tracked over time to determine the value of information provided.

Readers should note that several measures contained in this report are ‘an average of an average’ and could potentially vary slightly if different statistical software was used.

It should also be noted that the number of respondents from SDP (27) is too small to draw definite conclusions, but results for this region are included in tabulations for interest and to provide an indicative measure.

### The key findings.

#### *Incidence, diagnosis and treatment of lameness*

Lameness appears to be a substantial problem for respondents, with an average of 7.3% of their herd (or 17 cows) lame in the past 12 months. Some respondents claim more than 11% of their herd was affected this year.

It is notable that for 80% of respondents, lameness has been less of a problem this year than normal.

Vets examined an average of 30% of respondents’ lame cows this year, although this proportion is significantly higher among those from GippsDairy (38%) compared to WestVic Dairy (19%). Few respondents (11%) have had vets look at *all* their lame cows, ranging from 0% in WestVic Dairy to 19% in GippsDairy.

Most (average 76%) of the lame cows in respondents' herds had their feet physically examined however, many in a crush with a head locking device and with front or back hooves secured.

The majority of respondents (54%) tend to lift a cow's foot within a day if they think she is lame (39% straight away and 15% at the next milking).

More than seven in ten respondents claim to regularly compare the swelling on different sides (89%), clean out the hoof (71%) and wash the hoof (70%). Sixty-nine percent (69%) keep lame cows close to the dairy.

In the past 12 months, antibiotic use by respondents has been extensive and used to treat an average of 53% of lame cows. In 20% of respondent herds, *all* lame cows were treated with antibiotics. A significantly higher proportion of WestVic Dairy respondents (32%) claim *all* their lame cows needed treatment compared to GippsDairy (14%).

Penicillin is the antibiotic of choice for 77% of respondents.

While half the severely lame cows in respondents' herds walk again within 5 days, many take considerably longer and the average is 8 days (WestVic Dairy 12 days, GippsDairy 7 days and SDP 5 days).

Few cows are culled from respondent herds each year as a result of lameness, with the average number being 2 (or less than 1% of the herd).

Table (i) below and Table (ii) overleaf summarise the above information by both number of cows and proportion:

Table (i)

MEASURE (NUMBER)	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Average herd size	255.6	276.6	265.6	173.5
Average number of lame cows in last 12 months	17.3	19.2	16.0	13.2
Average number of lame cows examined by a vet	4.9	6.1	3.5	2.7
Average number of cows whose feet were physically examined	13.5	15.3	11.2	11.0
Average number of cows needing antibiotic treatment	8.8	9.3	9.2	6.6
Average number of lame cows culled in normal year	2.2	2.1	2.9	1.4
Average number of days taken for lame cows to walk again following serious lameness	8 days	7 days	12 days	5 days

Table (ii)

MEASURE (PROPORTION)	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Average proportion of herd lame in last 12 months	7.3%	7.5%	6.7%	7.6%
Average proportion of lame cows examined by a vet	30%	38%	19%	20%
Average proportion of lame cows whose feet were physically examined	76%	80%	71%	71%
Average proportion of lame cows needing antibiotic treatment	53%	47%	64%	54%
Average proportion of herd culled in normal year due to lameness	0.86%	0.76%	1.09%	0.80%

### *Confidence in ability to diagnose causes of lameness*

Respondents' level of confidence in their ability to diagnose the cause of lameness is relatively high, with 26% *very confident* and a further 62% *fairly confident*.

Although the sample size of respondents *not* confident in their ability to diagnose the cause of lameness is too small to draw definite conclusions, and most differences are not significant, there appears to be a trend in results. Notably, respondents who are confident in their lameness diagnostic ability are more likely than their less confident counterparts to do the following:

- physically examine the feet of a higher proportion of cows
- lift the foot of a suspected lame cow straight away
- wash the hoof
- clean out the hoof
- compare the swelling on different sides
- keep her close to the dairy
- use a glue-on plastic shoe
- resist using antibiotics
- have less time between onset of lameness and cows walking again

Results also reveal that compared to their counterparts from GippsDairy, respondents from WestVic Dairy appear to have a lower proportion of lame cows examined by a vet, or whose feet are physically examined by someone other than a vet. Possibly as a result, they treat a higher proportion of lame cows with antibiotics and cull a greater percentage due to lameness.

### *Perceived causes of lameness*

Respondents believe the causes of lameness this year are typical of 'normal' years and over the past 12 months include walking on hard and stony surfaces (65%) and footrot (33%). These two conditions are

also nominated as the most likely to respond to antibiotic treatment by 30% and 31% of respondents respectively.

Relatively few respondents specifically mention laminitis (3%), white line disease (6%), abscess (10%) or ulcer (1%).

*Lameness prevention*

Most respondents try to prevent lameness in their herd either *always* (75%) or *sometimes* (18%). Maintaining tracks by keeping them in good condition, well drained and with a good surface is the main preventative measure undertaken (86% of respondents), followed by walking cows slowly (32%).

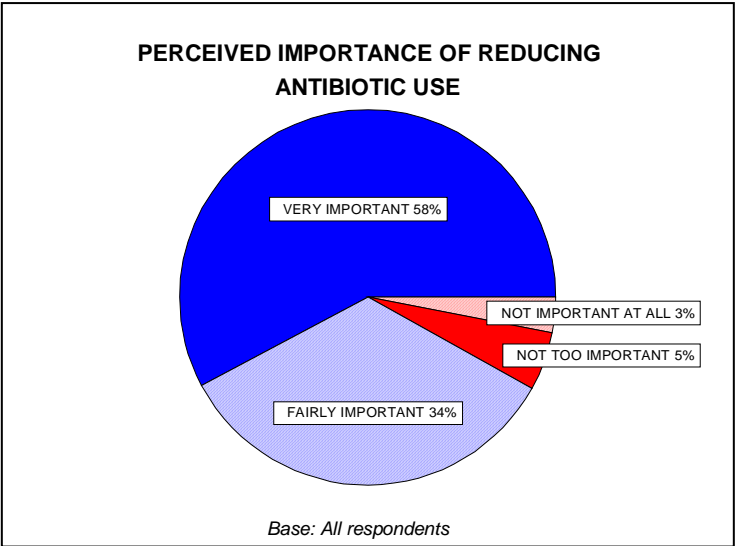
While respondents from SDP tend to have a similar proportion of cows going lame and needing antibiotic treatment as their counterparts from the other regions, they appear to be less likely to be implementing preventative measures (although the small sample size means this result is indicative only).

*Attitudes to reducing antibiotic use*

There is considerable belief among respondents that it is important for the use of antibiotics in the dairy industry to be decreased, with 92% claiming it is *very* (58%) or *fairly important* (34%).

This belief is mainly due to potential milk contamination and subsequent penalties (57% of respondents mentioning) and resistance factors (47% mentioning).

Chart (i)



*Information and support*

The ‘average’ respondent mentions two sources of information on lameness, mainly vets (85%) and rural magazines and journals (37%).

There is substantial interest in receiving additional lameness information in a manual (81%) and brief information sheets (71%).



## **Conclusions and recommendations.**

Despite lameness being less of a problem than normal over the past 12 months, the incidence of lameness in respondents' herds is high, with an average 7.3% of cows affected. In 15% of herds, this proportion is greater than 11%.

Confidence in their ability to diagnose the cause of lameness is high among respondents, yet they have actively sought to receive a lameness poster and many are interested in learning still more on the subject through a manual or information sheets.

Awareness of the effect on cow hooves of hard stony surfaces is high and many are actively attempting to maintain tracks as a result. Few respondents however actually name the cause of lameness (eg. white line disease or laminitis).

While the use of antibiotics to treat lameness, in particular penicillin, is quite common in respondent herds, there is general acceptance that this practice needs to be reduced.

There is some evidence in results to suggest that among survey respondents, higher levels of confidence in ability to diagnose the cause of lameness results in the occurrence of prompt and extensive examinations of affected hooves and less dependence on antibiotics as a treatment.

Due to the relatively high proportion of respondents' cows being affected by lameness, it may be worth conducting further research using an extensive national sample. This will allow greater insight into the extent of the problem, as well as determining current levels of knowledge and behaviour on a national scale using measures which can be tracked over time to assess industry change.

If this is not possible, the potential exists to re-contact the people who participated in this survey to measure knowledge increase and practice change (particularly prevention activities and antibiotic use) among this segment, as well as determine the stimuli for change.

**Section 1:**

**Introduction and objectives**

## **1. Introduction and objectives**

The primary aim of this project is to provide Dairy Research and Development Corporation, GippsDairy, WestVic Dairy and SDP with baseline data on current levels of lameness occurring in some dairy herds from Gippsland, Western Victoria and Queensland.

The project evaluates respondent knowledge of lameness causes and practices undertaken to prevent and combat the problem in their dairy cows.

Data collected in the project will be used as a benchmark for future market research studies to determine the success or otherwise of the lameness extension project currently being developed.

Issues explored in the project include the following:

- level of lameness in dairy herds
- level of involvement from vets
- methods of examining lame cows
- facilities available for examinations
- perceived causes of lameness
- methods used to treat lameness
- information sources

**Section 2:**

**Research Methodology**

## 2. Research methodology

The budget available for this project was extremely limited and consequently, the methodology used to gather data for this project reflects these budgetary constraints and results in a degree of bias in the sample.

It does however, provide a database of people who are actually looking for information on lameness. The knowledge and practices undertaken by these people can be tracked over time to determine whether information provided has resulted in better lameness prevention and treatment practices.

To obtain a database, a series of advertisements were placed in publications circulated by GippsDairy, WestVic Dairy and SDP offering dairy farmers from these regions the opportunity to receive a laminated poster on lameness in return for co-operation in the survey.

Response to the offer was fairly limited, and consequently the sample size for this project is only 150, split as follows:

Table 1

REGION	SAMPLE SIZE
GippsDairy	86
WestVic Dairy	37
SDP	27
Total	150

Dairy farmers responding to the offer were interviewed using a formal questionnaire (listed in the Appendix). Computer Assisted Telephone Interviewing (CATI) was utilised.

All interviews were conducted by Australian Fieldwork Solutions in accordance with Interview Quality Control Australia (IQCA) standards. Interviewing commenced on Tuesday 3 September and was not completed until Friday 1 November to allow time for dairy farmers to respond to the offer. All interviewers were thoroughly briefed on the project prior to fieldwork commencing.

The average interview length was 10 minutes, with good co-operation from respondents who participated.

**Confidence limits.**

The sample of dairy farmers in the survey is 150. On typical measurements involving the whole sample (where 70% of respondents concur), the standard error at the 95% confidence level is approximately  $\pm 7.3\%$ , a reasonable level of accuracy.

Readers should exercise caution however, when examining responses for small sub-samples. On an issue where 70% of respondents are *satisfied* and 30% are *dissatisfied*, the table below summarises the standard error at the 95% confidence level for different sample sizes:

Table 2

SAMPLE BASE	MARGIN FOR ERROR
10	$\pm 28.4\%$
20	$\pm 20.1\%$
50	$\pm 12.7\%$
75	$\pm 10.4\%$
100	$\pm 9.0\%$
150	$\pm 7.3\%$

## **Section 3:**

## **Report notes and definitions**

### **3. Report notes and definitions**

#### **Sampling**

When reading this report, it must be remembered that dairy farmers participating in the survey responded to an offer of receiving an information poster on lameness in dairy cows. Consequently the sample has a degree of bias and results may not be representative of the 'average' dairy farmer when it comes to knowledge, prevention and treatment of lameness.

The sample size in SDP is too small to draw definite conclusions, but results for this region are detailed in all tabulations for interest and indicative results.

#### **Means**

Several measures in this report are based on 'an average of an average' and it is possible that results would vary slightly if different statistical software was used.

#### **'NFI'**

Readers will notice '(nfi)' typed after some tabulated responses from survey participants. This means 'no further information' and indicates that respondents could only offer a general response to the question asked and despite interviewers probing carefully (without prompting), more specific details were not forthcoming.

#### **Statistically significant differences**

In this report, only statistically significant differences as well as trends in data are commented on. If no reference is made to a difference between segments, the reader can safely assume it is because the difference is not significant.



**Sections 4 - 9:  
Main Report**

## 4. Incidence of lameness

### 4.1 Incidence of lameness in past 12 months

Question asked:

Q3. Approximately how many cows have been lame in the past 12 months?

Q2. In terms of lameness in your herd, would you describe the past year as being very bad, fairly bad, not too bad, not bad at all?

### Key findings

- The 'average' respondent claims to have had 17 lame cows in the past 12 months, or 7.3% of their herd.
- There is little variation by region in the proportion of the herd which has been lame:

Table 3

PROPORTION OF HERD LAME IN LAST 12 MONTHS	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
0% - 3%	28%	21%	41%	33%
4% - 7%	37%	44%	27%	26%
8% - 11%	20%	20%	16%	26%
>11%	15%	15%	16%	15%
Average proportion	7.3%	7.5%	6.7%	7.6%
Average herd size	255.6	276.6	265.6	175.3
Average number of lame cows in last 12 months	17.3	19.2	16.0	13.2

\*Caution: small sub-sample

- Results suggest that the number of lame cows this year is lower than normal, with 80% of respondents claiming the past year has been *not too bad* (41%) or *not bad at all* (39%) for lameness.

Table 4

RATING OF PAST YEAR FOR LAMENESS	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Very bad	3%	0%	8%	4%
Fairly bad	17%	21%	14%	11%
<b>NET: Bad</b>	<b>20%</b>	<b>21%</b>	<b>22%</b>	<b>15%</b>
Not too bad	41%	43%	38%	37%
Not bad at all	39%	36%	41%	48%
<b>NET: Not bad</b>	<b>80%</b>	<b>79%</b>	<b>78%</b>	<b>85%</b>

\*Caution: small sub-sample

- As expected, the proportion of respondents claiming the past year has been *bad* for lameness increases as the percentage of their herd affected increases. Only 2% of respondents with between 0%-3% of their herd suffering lameness claim the past year has been *bad*, rising to 48% of those with more than 11% of their herd affected.

## **Implications**

For many dairy farmers participating in the survey, lameness has been a substantial problem over the past 12 months despite it being a ‘good’ year for lameness.

## 4.2 Average proportion of cows culled due to lameness

*Question asked:*

*Q23. In an average year, how many cows do you cull as a result of lameness?*

*Q1. How many cows do you normally milk?*

### Key findings

- In a normal year, the average respondent culls 12.7% of their lame cows. This represents less than 1% of their herd (or approximately 2 cows).
- There is no significant difference to this result by RDP region, as shown in the table below:

Table 5

MEASURE	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Average herd size	255.6	276.6	265.6	175.3
Average number of lame cows culled in a normal year	2.2	2.1	2.9	1.4
Average proportion of lame cows culled in a normal year	12.7%	10.9%	18.0%	10.6%
Average proportion of herd culled in normal year due to lameness	0.86%	0.76%	1.09%	0.80%

*\*Caution: small sub-sample*

- Respondents with more than 11% of their herd suffering lameness in the past 12 months cull a substantially higher proportion of their cows in a normal year due to lameness compared to their counterparts with less than 4% of their herd affected (1.6% culled in an average year compared to 0.37%).

### Implications

While a relatively low proportion of the average dairy herd is culled due to lameness, there is some evidence to suggest a number of dairy farmers have on-going difficulties with this problem.

## 5. Perceived causes of lameness

Questions asked:

Q9. What have been the main causes of lameness in your herd over the past 12 months?

Q10. Is this typical of an average year?

If not typical, ask:

Q11. What are the typical causes of lameness in your herd?

### Key findings

- Many respondents blame walking on hard surfaces for lameness in their herd over the past 12 months. Footrot is also perceived to have been a significant problem. Main causes of lameness mentioned by respondents is detailed in the table below:

Table 6

PERCEIVED CAUSES OF LAMENESS OVER PAST 12 MONTHS	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Walking on stones / concrete / hard surfaces	65%	73%	57%	48%
Footrot	33%	26%	30%	59%
Bruising	19%	21%	16%	19%
Worn soles	14%	16%	16%	4%
Wet tracks / muddy tracks	15%	13%	30%	4%
Abscess	10%	9%	16%	4%
Infection	7%	7%	5%	7%
White line disease	6%	7%	5%	4%
Genetic problems / malformed / long toes	5%	3%	3%	11%
Injury (nfi)	5%	3%	8%	7%
Cracked hooves	3%	6%	0%	0%
Laminitis	3%	1%	3%	7%
Soft hooves	2%	3%	0%	0%
Walking too far	2%	2%	3%	0%
Ulcer	1%	1%	0%	0%

\*Caution: small sub-sample

- While the sample is too small to draw definite conclusions, it is notable that 59% of respondents from SDP mention *footrot* compared to 26% from GippsDairy and 30% from WestVic Dairy.
- Perceived causes of lameness this year appear to be consistent with previous years, with 95% of respondents with lame cows claiming causes are typical.

- Only 7 respondents claim causes of lameness this year are not typical. Four claim they typically have a greater problem with *bruising*, two with *walking heifers too far/distance walked*, and one mention each of *abscess*, *wet tracks/muddy tracks* and *worn soles*.

## **Implications**

Many respondents attribute lameness to walking on hard or stony surfaces. Substantially fewer mention the actual disease or injury names.

## 6. Diagnosing lameness

### 6.1 Incidence of lame cows being examined by a vet

*Question asked:*

*Q4. How many of these lame cows were examined by a vet?*

#### Key findings

- Dairy farmers participating in the survey claim that in the past 12 months, approximately 30% of their lame cows were examined by a vet.

Sixty-three percent (63%) overall had a vet examine at least some of their lame cows.

- GippsDairy respondents claim to have a significantly higher proportion of their lame cows examined by a vet (38%) than their counterparts from WestVic Dairy (19%). The sample size in SDP is too small to draw definite conclusions, but the proportion (20%) is also notably lower than GippsDairy.

Table 7

PROPORTION OF LAME COWS EXAMINED BY VET	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
0%	37%	28%	49%	52%
1% - 25%	23%	23%	22%	22%
25% - 50%	17%	16%	22%	11%
51% - 75%	9%	10%	5%	7%
76% - 99%	3%	3%	3%	4%
100%	11%	19%	0%	4%
Average proportion	30%	38%	19%	20%
Average number of lame cows examined by a vet	4.9	6.1	3.5	2.7

*\*Caution: small sub-sample*

#### Implications

While most respondents have had some input from vets on their lame cows, few have had them all looked at in the past 12 months, particularly in WestVic Dairy.

## 6.2 Incidence of lame cows being physically examined and examination facilities available

*Question asked:*

- Q5. *About how many lame cows had their feet physically examined? That is, they were restrained, the hoof lifted and closely examined?*
- Q6. *I'd like to ask you some questions about the type of facilities you have for safely examining lame cows. Can you tell me if your facilities have the following?*

### Key findings

- On average, almost three quarters of respondents' lame cows had their feet physically examined. Sixty-one percent (61%) of respondents claim *all* of their lame cows had their feet examined.

Table 8

PROPORTION OF LAME COWS WHOSE FEET WERE PHYSICALLY EXAMINED	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
0%	7%	2%	14%	15%
1% - 25%	7%	7%	5%	7%
26% - 50%	13%	15%	11%	11%
51% - 75%	10%	9%	14%	7%
76% - 99%	2%	1%	3%	4%
100%	61%	65%	54%	56%
Average proportion	76%	80%	71%	71%
Average number of cows	13.5	15.3	11.2	11.0

*\*Caution: small sub-sample*

- Fourteen percent (14%) of respondents from WestVic Dairy claim they did not physically examine the feet of any lame cows, a significantly higher proportion than their counterparts from GippsDairy (2%). Although the sample size is too small to draw definite conclusions, it is notable that the proportion of SDP respondents not examining the feet of any lame cows (15%) is also higher than those from GippsDairy.
- It is also notable that respondents claiming to be confident in their ability to diagnose the cause of lameness are significantly more likely than those not confident to examine the feet of *all* their lame cows (64% compared to 33%), but sample sizes are again too small to draw definite conclusions.



- Most dairy farmers participating in the survey claim to have a crush with a head locking device and the facility to lift front and back hooves and secure them, as shown in the table below:

Table 9

FACILITIES AVAILABLE TO EXAMINE LAME COWS	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
The ability to lift back hooves and secure them	90%	90%	95%	85%
The ability to lift front hooves and secure them	89%	88%	92%	85%
A crush where you can open out the sides and with a head locking device	88%	94%	76%	85%
Some sort of roof or shelter above these facilities	46%	45%	43%	52%
The ability to turn cows in the area where they are examined	22%	23%	24%	15%

*\*Caution: small sub-sample*

- While sample sizes are too small to draw definite conclusions, the following table reveals that many respondents did not physically examine their lame cows, despite having the above facilities:

Table 10

FACILITIES AVAILABLE TO EXAMINE LAME COWS	% OF ALL RESPONDENTS MENTIONING					
	PROPORTION OF LAME COWS WHOSE FEET WERE PHYSICALLY EXAMINED					
	0% (n = 11)*	1-25% (n = 10)*	26-50% (n = 20)*	51-75% (n = 15)*	76-99% (n = 3)*	100% (n = 91)*
The ability to lift back hooves and secure them	64%	70%	90%	93%	100%	95%
The ability to lift front hooves and secure them	55%	70%	90%	93%	100%	93%
A crush where you can open out the sides and with a head locking device	82%	100%	100%	100%	0%	86%
Some sort of roof or shelter above these facilities	36%	30%	25%	40%	0%	56%
The ability to turn cows in the area where they are examined	18%	20%	30%	13%	0%	23%

*\*Caution: small sub-sample*

## Implications

Most respondents physically examined the foot of a high proportion of their lame cows. Survey results suggest there may be a link between the level of confidence in diagnosis skills and physical examinations, rather than the type of facilities available.

### 6.3 Average time delay prior to lifting foot of potentially lame cow

*Question asked:*

*Q7. On average, how soon after you think a cow is lame do you lift her foot?*

#### Key findings

- The majority of respondents lift a potentially lame cow's foot either straight way (39%) or at the next milking (15%).
- Almost half (48%) of respondents from GippsDairy claim to lift a cow's foot straight away.

Table 11

PERCEIVED CAUSES OF LAMENESS	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Straight away	39%	48%	30%	22%
At next milking	15%	14%	11%	26%
One day later	15%	15%	22%	7%
Two days later	12%	14%	5%	15%
Three days later	3%	1%	5%	4%
Longer than three days	9%	8%	11%	11%
Don't lift foot	7%	0%	16%	15%

*\*Caution: small sub-sample*

- Respondents who are confident in their ability to diagnose the cause of lameness tend to wait less time to lift a cow's foot (0.9 days on average) compared to those not confident (1.7 days on average).

#### Implications

The majority of respondents tend to lift a cow's foot within a day if they think she is lame. The urgency of lifting the foot appears to be linked to confidence in the ability to diagnose the cause.

## 6.4 Level of confidence in ability to diagnose cause of lameness

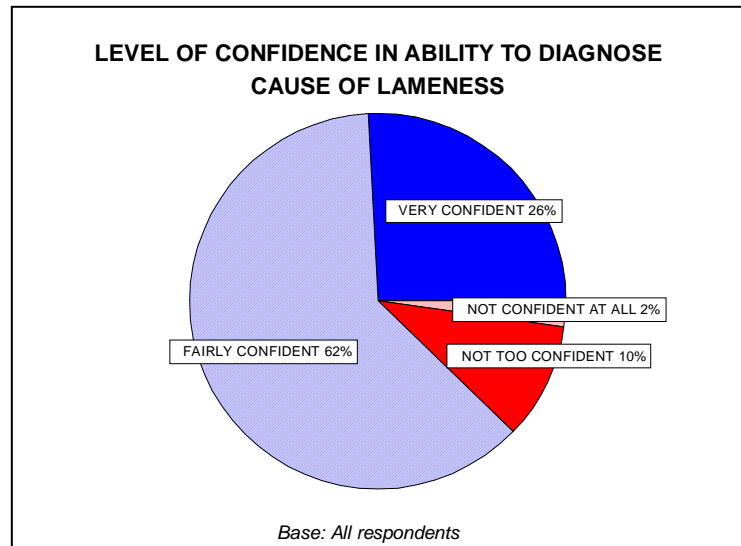
*Question asked:*

Q8. *How confident are you in your ability to diagnose the cause of lameness? Would you say you are very confident, fairly confident, not too confident, not confident at all?*

### Key findings

Chart 1

- Almost nine in ten respondents (88%) claim to be confident in their ability to diagnose the cause of lameness. Most however, are only *fairly confident* (62%).



- There are no significant differences to this result by region, respondent age or proportion of herd affected by lameness.

- Although sample sizes are too small to draw definite conclusions and most differences are not significant, there appears to be a trend in results. Notably, respondents who are confident in their ability to diagnose the cause of lameness are more likely than their less confident counterparts to do the following:
  - physically examine the feet of a higher proportion of cows
  - lift the foot of a suspected lame cow straight away
  - wash the hoof
  - clean out the hoof
  - compare the swelling on different sides
  - keep her close to the dairy
  - use a glue-on plastic shoe
  - resist using antibiotics
  - have less time between onset of lameness and cows walking again

## **Implications**

Most respondents have a degree of confidence in their ability to diagnose the cause of lameness. There is some evidence in results which suggests adoption of good practice may be linked to this confidence.

## 7. Lameness treatment

### 7.1 Average lameness recovery time

*Question asked:*

*Q12. On average, how many days does it take your lame cows to be walking again if they suffer from serious lameness?*

#### Key findings

- Half the seriously lame cows in respondents' herds are usually walking again within five days. The 'average cow' takes eight days before they are walking again, ranging from five days in SDP (although this sample is too small to draw definite conclusions) to 12 days in WestVic Dairy region.

Table 12

AVERAGE NUMBER OF DAYS BEFORE LAME COWS ARE WALKING AGAIN	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
0 - 2 days	23%	23%	8%	41%
3 - 5 days	27%	29%	27%	19%
6 - 10 days	31%	31%	35%	26%
10+ days	19%	16%	30%	15%
Average number of days	8 days	7 days	12 days	5 days

*\*Caution: small sub-sample*

- The average number of days before a seriously lame cow is usually walking again increases as herd size increases, from an average of 3 days in herds smaller than 100 cows to 10 days in herds of 300+.

#### Implications

Many lame cows in respondents' herds take a considerable length of time before they are able to walk again.

## 7.2 Treatment regime

Question asked:

Q13. Can you tell me whether you regularly, occasionally or never do the following if you think a cow is lame?

### Key findings

- More than seven in ten respondents claim to regularly *compare the swelling on different sides* (89%), *clean out the hoof* (71%) and *wash the hoof* (70%).

Most (66%) claim to regularly look at cows they think are lame *before the next milking* (66%), 30% regularly leave them for one day before treating, but only 3% regularly leave them for three days.

The table below outlines results for this measure:

Table 13

PRACTICE	% OF ALL RESPONDENTS MENTIONING											
	REGULARLY				OCCASIONALLY				NEVER			
	TOTAL	GIPPS-DAIRY	WEST-VIC DAIRY	SDP*	TOTAL	GIPPS-DAIRY	WEST-VIC DAIRY	SDP*	TOTAL	GIPPS-DAIRY	WEST-VIC DAIRY	SDP*
Compare the swelling on different sides	89%	88%	86%	96%	7%	8%	8%	4%	3%	3%	5%	0%
Clean out the hoof	71%	77%	68%	56%	22%	17%	22%	37%	7%	6%	1%	7%
Wash the hoof	70%	69%	76%	67%	24%	27%	16%	26%	6%	5%	8%	7%
Keep her close to the dairy	69%	76%	73%	41%	23%	21%	22%	30%	9%	3%	5%	30%
Look at her before next milking	66%	67%	62%	67%	17%	15%	24%	15%	17%	17%	14%	19%
Put her on antibiotics	45%	37%	57%	52%	50%	59%	38%	37%	5%	3%	5%	11%
Put her in a separate herd	45%	52%	46%	22%	31%	34%	38%	15%	23%	14%	16%	63%
Leave her for one day before treating	30%	28%	35%	30%	41%	43%	30%	48%	29%	29%	35%	22%
Use a glue on-plastic shoe	22%	30%	11%	15%	43%	46%	46%	30%	36%	24%	43%	56%
Leave her for two days before treating	7%	6%	8%	11%	26%	23%	24%	37%	67%	71%	68%	52%
Use a block as treatment	6%	8%	3%	4%	15%	14%	16%	19%	79%	78%	81%	78%
Leave her for three days or more before treating	3%	2%	3%	7%	12%	14%	11%	7%	85%	84%	86%	85%

\*Caution: small sub-sample

- More than half (57%) the respondents from WestVic Dairy regularly *put her on antibiotics*, a significant 20 points higher than their counterparts from GippsDairy (37%).
- While sample sizes are too small to draw definite conclusions, it is notable that respondents who are confident in their ability to diagnose lameness are significantly more likely than those not confident to *clean out the hoof* regularly (73% compared to 50%).

They are however, less likely to regularly *put her on antibiotics* (42% compared to 67%).

## **Implications**

A high proportion of respondents look at a potentially lame cow before next milking. They compare swelling on different sides, clean and wash the hoof and keep her close to the dairy. Antibiotics are likely to be used in several cases (53% this year - see next section).

### 7.3 Incidence of antibiotic treatment

*Question asked:*

Q14. *About how many of your lame cows needed antibiotic treatment this year?*

#### Key findings

- On average, just over half the lame cows belonging to survey respondents needed antibiotic treatment this year.

Table 14

PROPORTION OF LAME COWS NEEDING ANTIBIOTIC TREATMENT	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
0%	6%	6%	5%	7%
1% - 25%	17%	23%	11%	7%
26% - 50%	35%	36%	24%	44%
51% - 75%	17%	16%	22%	11%
76% - 99%	5%	5%	5%	7%
100%	20%	14%	32%	22%
Average proportion	53%	47%	64%	54%
Average number	8.8	9.3	9.2	6.6

*\*Caution: small sub-sample*

- A significantly higher proportion of WestVic Dairy respondents claim *all* their lame cows needed antibiotic treatment compared to GippsDairy (32% compared to 14%).

#### Implications

Antibiotics have been used to treat approximately half of respondents' lame cows in the past 12 months.



## 7.4 Types of antibiotics used

Questions asked:

Q15. What sort of antibiotics have you used to treat lameness?

Q16. Which would be your first choice to use for lameness?

Q17. And which antibiotic would be your second choice?

### Key findings

- The ‘average’ respondent uses only one type of antibiotic to treat lameness. Seventy-seven percent (77%) use Penicillin, while 25% use Excenel. Other antibiotics used were mentioned by 2% or less of respondents.

Table 15

TYPE OF ANITBIOTIC TREATMENT USED	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Penicillin	77%	80%	78%	63%
Excenel	25%	22%	27%	30%
No antibiotic used	6%	6%	5%	7%

\*Caution: small sub-sample

- Thirty-one (31) respondents use more than one antibiotic. Of these respondents, 17 claim Excenel would be their first choice, for 10 others it would be Penicillin, while 4 claimed it would be another antibiotic.

### Implications

Penicillin is clearly the most commonly used antibiotic by respondents to treat lameness.

## 7.5 Perceived conditions likely to respond to antibiotics

*Question asked:*

Q18. *Earlier, you mentioned some causes of lameness in your cows. I'll read through the ones you mentioned and I'd like you to tell me, from your experience, which conditions are likely to respond to antibiotic treatments.*

### Key findings

- The most common causes of lameness over the past 12 months (walking on hard, stony surfaces and footrot) are also the conditions nominated to be the most likely to respond to lameness.

One in four respondents (26%) believe no conditions respond to antibiotic treatments, yet only 6% did not use antibiotics.

Table 16

CONDITION MOST LIKELY TO RESPOND TO ANTIBIOTIC TREATMENT	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Footrot	31%	26%	24%	56%
Walking on stones / concrete / hard surfaces	30%	31%	41%	11%
Wet / muddy tracks	8%	7%	16%	0%
Abscess	7%	8%	11%	0%
Infection	6%	6%	5%	7%
Bruising	5%	3%	8%	4%
Worn soles	3%	3%	5%	0%
White line disease	1%	0%	5%	0%
Genetic problems / malformed / long toes	1%	1%	0%	0%
Injury (nfi)	1%	0%	3%	0%
None	26%	29%	16%	30%

*\*Caution: small sub-sample*

### Implications

Footrot and walking on stony and hard surfaces are nominated by respondents as the most common causes of lameness and are believed to be the most likely to respond to antibiotics.

There is also some evidence in the results that a few respondents administer antibiotics to lame animals even though they are not confident this will result in a positive outcome, or perhaps their experience with antibiotics has not been successful.

## 7.6 Perceived importance of reducing antibiotic usage

Question asked:

Q19. How important do you think it is for the dairy industry to reduce the use of antibiotics? Would you say it is very important, fairly important, not too important, not important at all?

Q20. Why do you say that?

### Key findings

Chart 2

- A substantial 92% of respondents claim it is either *very* (58%) or *fairly important* (34%) for the dairy industry to reduce the use of antibiotics.
- Respondents from GippsDairy have a significantly higher propensity than their counterparts from WestVic Dairy to claim it is *very important* (65% compared to 46%).

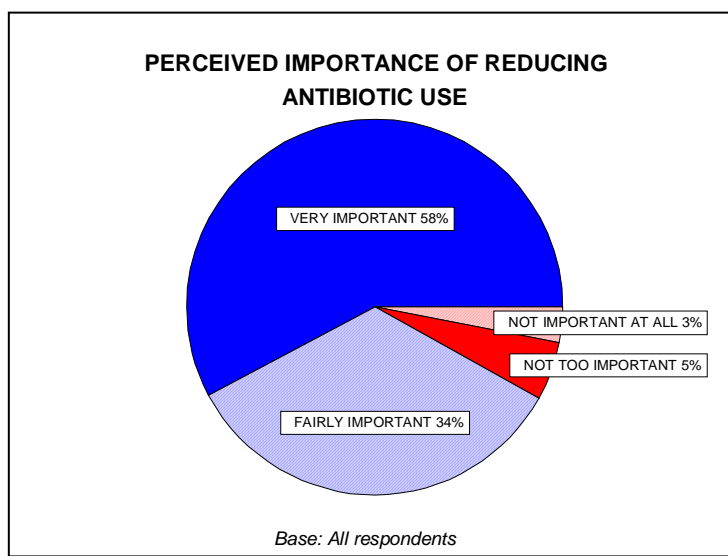


Table 17

PERCEIVED LEVEL OF IMPORTANCE OF REDUCING ANTIBIOTIC USE	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Very important	58%	65%	46%	52%
Fairly important	34%	27%	46%	41%
<b>NET: Important</b>	<b>92%</b>	<b>92%</b>	<b>92%</b>	<b>93%</b>
Not too important	5%	5%	5%	7%
Not important at all	3%	3%	3%	0%
<b>NET: Not important</b>	<b>8%</b>	<b>8%</b>	<b>8%</b>	<b>7%</b>

\*Caution: small sub-sample

- Concern over contamination and withholding periods and resistance to antibiotics are the main reasons given for believing it is important for the dairy industry to reduce antibiotic use.

The table overleaf outlines the main reasons given:

Table 18

REASON FOR RATING OF IMPORTANCE FOR DAIRY INDUSTRY TO REDUCE ANTIBIOTIC USE	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
<b>Reasons for rating as important:</b>				
Avoid contamination / penalties / withholding period	57%	57%	51%	67%
Resistance / immunity to antibiotics	47%	49%	41%	48%
Cost of antibiotics	25%	27%	30%	15%
To maintain natural / clean / green image of dairy farming	23%	28%	22%	7%
Often administered incorrectly	5%	5%	3%	11%
Time / labour required to administer	5%	5%	5%	4%
Prevention better than cure	3%	1%	5%	4%
Affect on cow health	3%	2%	5%	0%
<b>Reasons for rating as not important:</b>				
Antibiotics used only when absolutely necessary	9%	8%	11%	11%
No problems if withholding procedures are followed	3%	3%	5%	0%
Lameness control difficult without antibiotics	2%	2%	0%	4%

\*Caution: small sub-sample

## Implications

There is considerable belief among respondents that the use of antibiotics in the dairy industry needs to be decreased, mainly due to potential milk contamination and subsequent penalties and resistance factors.

## 8. Lameness prevention

Question asked:

Q21. Do you do anything to try to prevent lameness in your herd?

Q22. What have you done to prevent lameness?

### Key findings

Chart 3

- Most respondents claim they try to prevent lameness in their herd either *always* (75%) or *sometimes* (18%).
- While the sample size in SDP is too small to draw definite conclusions, it is notable that 22% of respondents from this region claim to *never* try to prevent lameness, higher than their counterparts from GippsDairy and WestVic Dairy (both 3%).

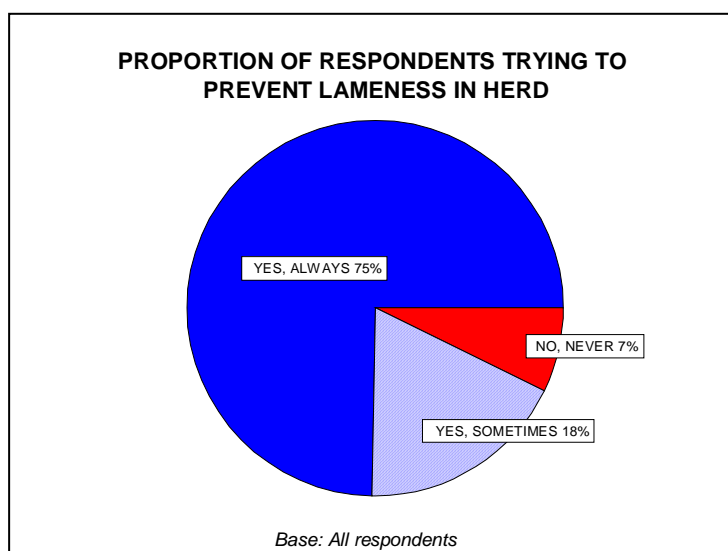


Table 19

WHETHER TRY TO PREVENT LAMENESS IN HERD	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Yes, always	75%	80%	76%	59%
Yes, sometimes	18%	16%	22%	19%
<b>NET: Yes</b>	<b>93%</b>	<b>97%</b>	<b>97%</b>	<b>78%</b>
No, never	7%	3%	3%	22%

\*Caution: small sub-sample

- Respondents with herds larger than 200 cows are significantly more likely than those with less than 200 cows to *always* try to prevent lameness (85% compared to 66%). It is notable that lame cows from larger herds typically take longer to walk again compared to those from smaller herds.
- Maintaining tracks and walking cows slowly are the main methods used by respondents in an effort to prevent lameness.

The main reasons given for this measure are detailed in the table below:

Table 20

PRACTICES UNDERTAKEN TO TRY TO PREVENT LAMENESS	% OF RESPONDENTS TRYING TO PREVENT LAMENESS MENTIONING			
	TOTAL (n = 140)	GIPPSDAIRY (n = 83)	WESTVIC DAIRY (n = 36)	SDP (n = 21)*
NET: Track maintenance	86%	89%	89%	71%
Maintain tracks / keep tracks in good condition	58%	58%	61%	52%
Keep tracks dry / well drained	15%	19%	6%	14%
Resurface tracks / better surface	3%	2%	6%	0%
Walk cows slowly / at own pace / no dogs	32%	33%	31%	33%
Use zinc / mineral supplement	14%	13%	14%	19%
Use footbaths	11%	16%	3%	10%
Use mats that harden hooves	8%	8%	8%	5%
Good nutrition	7%	4%	6%	24%
Only breed animals with good legs and feet	5%	6%	3%	5%
Use concrete approaches	4%	2%	6%	5%
Hooves kept trimmed and in good condition	3%	2%	0%	10%
Minimise time spent in dairy	3%	4%	3%	0%

*\*Caution: small sub-sample*

## Implications

Most respondents from GippsDairy and WestVic Dairy are actively trying to prevent lameness, mainly by keeping tracks in good condition and not hurrying cows.

While respondents from SDP tend to have a similar proportion of cows going lame and needing antibiotic treatment, results indicate they may be less likely to be implementing preventative measures.

## 9. Information and support

### 9.1 Lameness information sources

*Question asked:*

Q24. *Where do you get information on lameness from?*

#### Key findings

- The ‘average’ respondents mentions two sources of information on lameness. Vets are the most common source, while many read articles in rural magazines and journals.

The table below outlines the main mentions for this measure:

Table 21

LAMENESS INFORMATION SOURCES	% OF ALL RESPONDENT MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Vet	85%	91%	78%	78%
Rural magazines / journals	37%	30%	41%	52%
Neighbours / other farmers	14%	16%	8%	15%
NRE / DPI / Dept of Ag	8%	8%	8%	7%
Local papers	8%	9%	5%	7%
Field days	7%	7%	3%	1%
Trial and error on farm	7%	9%	0%	7%
Farmer groups / Target 10 / InCalf	4%	5%	3%	4%
GippsDairy / WestVic Dairy / SDP	4%	3%	8%	0%

*\*Caution: small sub-sample*

- It is notable that GippsDairy respondents are the most likely to source lameness information from vets. While not all the following results are significantly different to those achieved in WestVic Dairy and SDP regions, the trend is noteworthy. Respondents from GippsDairy are more likely to do the following:
  - examine the feet of at least some potentially lame cows
  - lift the foot straight away
  - clean out the hoof
  - put the affected cow in a separate herd
  - resist using antibiotics in all cases
  - believe it is *very important* to reduce antibiotic use
  - *always* try to prevent lameness

- Fifty-two percent (52%) of respondents from SDP source information from *rural magazines/journals*, a significant 22 points higher than their counterparts from GippsDairy (30%).

## **Implications**

Vets are the most popular source of lameness information for respondents and there is some evidence that contact with vets (as well as level of confidence in ability to diagnose cause of lameness) results in faster response and prevention practices.



## 9.2 Level of interest in learning more about lameness

Question asked:

Q25. How interested are you in learning more about the diagnosis, prevention and treatment of lameness in dairy cows? Would you say you are very interested, fairly interested, not too interested, not interested at all?

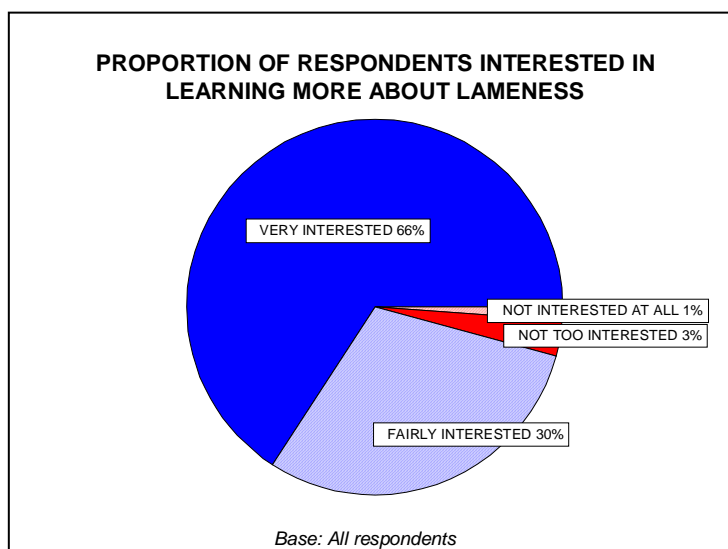
### Key findings

Chart 4

- Almost all the respondents participating in the survey claim to be interested in learning more about the diagnosis, prevention and treatment of lameness (96%).

This proportion must be viewed with some caution however, due to the nature of obtaining sample for this project (respondents actively

seeking a poster on lameness) and may not be representative of the whole dairy farming population.



- There are no significant differences to these results by region:

Table 22

PERCEIVED LEVEL OF IMPORTANCE OF REDUCING ANTIBIOTIC USE	% OF ALL RESPONDENTS MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Very interested	66%	65%	76%	56%
Fairly interested	30%	30%	19%	44%
<b>NET: Interested</b>	<b>96%</b>	<b>95%</b>	<b>95%</b>	<b>100%</b>
Not too interested	3%	3%	3%	0%
Not interested at all	1%	1%	3%	0%
<b>NET: Not interested</b>	<b>4%</b>	<b>5%</b>	<b>5%</b>	<b>0%</b>

\*Caution: small sub-sample  
Errors due to rounding

- Respondents who claim to be *not interested* in learning more all come from farms with larger herds (200+) and may have responded to the offer of the lameness poster to use as an education tool for others working on the farm.

## **Implications**

As expected, dairy farmers responding to the offer of the lameness poster are interested in learning more about diagnosis, prevention and treatment.

### 9.3 Preferred sources for additional information on lameness

*Question asked:*

*Q26. I'd like to read out some ways other dairy farmers have told us they would like to receive additional information on lameness. Can you please tell me whether you would be interested in receiving information on lameness by ...*

#### Key findings

- Manuals and brief information sheets are the most popular means to receive additional lameness information, as shown in the table below:

Table 23

PREFERRED LAMENESS INFORMATION SOURCE	% OF ALL RESPONDENT MENTIONING			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Manual	81%	83%	78%	78%
Brief information sheets	71%	70%	76%	67%
Field days	57%	58%	59%	52%
Short course of two half day sessions	53%	52%	57%	52%
Video	52%	51%	59%	44%
Seminar	51%	52%	65%	30%
CD version of the manual	41%	42%	43%	33%
Information on the web	37%	31%	49%	37%

*\*Caution: small sub-sample*

#### Implications

There is evidence of latent demand for a manual or information sheets on lameness among those actively seeking information.

## 9.4 Reasons for lack of interest in learning more about lameness

*Question asked:*

*If not interested in learning more about diagnosis, prevention and treatment of lameness, ask:  
Q27. Why are you (from Q24) about learning more about lameness?*

### Key findings

- Only 6 respondents claimed to be *not interested* in learning more about diagnosis, prevention and treatment of lameness.

All are confident in treatment they already implement and two consult with a vet for information.

**Section 10:**

**Demographics of sample**

## 10. Demographics of sample

### 10.1 Gender

Table 24

GENDER	% OF ALL RESPONDENTS			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
Male	76%	77%	78%	70%
Female	24%	23%	22%	30%

*\*Caution: small sub-sample*

### 10.2 Age

Table 25

AGE	% OF ALL RESPONDENTS			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
30 years or younger	11%	10%	16%	4%
31 – 39 years	25%	29%	22%	19%
40 – 49 years	29%	23%	32%	41%
50 – 59 years	24%	27%	19%	22%
60 – 69 years	9%	8%	8%	15%
70+ years	2%	2%	3%	0%

*\*Caution: small sub-sample*

### 10.3 Herd size

Table 26

HERD SIZE	% OF ALL RESPONDENTS			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
<100	8%	5%	0%	30%
100 – 150	20%	20%	11%	33%
151 – 200	21%	17%	38%	11%
201 – 250	13%	15%	16%	4%
251 – 300	11%	13%	11%	7%
301 - 350	8%	9%	5%	7%
351 – 400	9%	12%	5%	4%
401+	9%	9%	14%	4%
MEANS	256	277	266	175

*\*Caution: small sub-sample*

## 10.4 Length of time as dairy farmer

Table 27

LENGTH OF TIME AS DAIRY FARMER	% OF ALL RESPONDENTS			
	TOTAL (n = 150)	GIPPSDAIRY (n = 86)	WESTVIC DAIRY (n = 37)	SDP (n = 27)*
5 years or less	12%	12%	11%	15%
6 – 10 years	27%	26%	32%	22%
11 – 20 years	20%	20%	19%	22%
More than 20 years	41%	43%	38%	41%

*\*Caution: small sub-sample*

**Appendix:  
Questionnaire**



# Down To Earth Research

## Lameness in Dairy Cows

### QUOTAS:

Victoria: GippsDairy-----100  
              West Vic Dairy -----100  
Queensland ----- 50

### INTRODUCTION:

Good morning / afternoon / evening, my name is (NAME) from Down To Earth Research, could I please speak to (NAME ON LIST).

*Re-introduce if necessary*

You, or someone else in the family recently responded to an offer to receive a lameness poster and agreed to participate in a short survey as a result. Do you recall agreeing to this offer?

Is it convenient to speak to you now for about 10 minutes, or would you prefer me to call you back at another time?

*Arrange call back time if requested.*

For quality control purposes, the interview may be monitored by my supervisor. If you prefer the interview not to be monitored, please tell me now.

---

Q1. How many cows do you normally milk?

Q2. In terms of lameness in your herd, would you describe the past year as being ...  
(*Read out*)

VERY BAD ----- 1  
FAIRLY BAD ----- 2  
NOT TOO BAD ----- 3  
NOT BAD AT ALL ----- 4

Q3. Approximately how many cows have been lame in the past 12 months?

Q4. How many of these lame cows were examined by a vet?

Q5. About how many lame cows had their feet physically examined? That is, they were restrained, the hoof lifted and closely examined?

Q6. I'd like to ask you some questions about the type of facilities you have for safely examining lame cows. Can you tell me if your facilities have the following? (*Record in grid if answer is yes*)

1. A crush where you can open out the sides and with a head locking device ----- 1
2. The ability to turn cows in the area where they are examined ----- 2
3. The ability to lift front hooves and secure them ----- 3
4. The ability to lift back hooves and secure them ----- 4
5. Some sort of roof or shelter above these facilities ----- 5

Q7. On average, how soon after you think a cow is lame do you lift her foot? (*Do not read out*)

- STRAIGHT AWAY ----- 1
- AT NEXT MILKING ----- 2
- ONE DAY LATER ----- 3
- TWO DAYS LATER ----- 4
- THREE DAYS LATER ----- 5
- LONGER THAN THREE DAYS ----- 6
- DON'T LIFT FOOT ----- 7
- OTHER (SPECIFY) ----- 8

Q8. How confident are you in your ability to diagnose the cause of lameness? Would you say you are ... (*Read out*)

- VERY CONFIDENT ----- 1
- FAIRLY CONFIDENT ----- 2
- NOT TOO CONFIDENT ----- 3
- NOT CONFIDENT AT ALL ----- 4

Q9. What have been the main causes of lameness in your herd over the past 12 months? *Do not prompt. Record in grid below*

Q10. Is this typical of an average year?

- YES ----- 1 GO TO Q12
- NO ----- 2 CONTINUE

**IF NOT TYPICAL (Q10 = 2), ASK:**

Q11. What are the typical causes of lameness in your herd? *Do not prompt. Record In grid below.*

	<u>Q9</u>	<u>Q11</u>
BRUISING -----	1	1
FOOTROT -----	2	2
ABSCESS -----	3	3
ULCER -----	4	4
INFECTION -----	5	5
WORN SOLES -----	6	6
WHITE LINE DISEASE -----	7	7
WET TRACKS/MUDDY TRACKS -----	8	8
WALKING ON STONES / CONCRETE / HARD SURFACES -----	9	9
OTHER (Specify) -----	10	10
DON'T KNOW -----	11	11

Q12. On average, how many days does it take your lame cows to be walking again if they suffer from serious lameness?

Q13. Can you tell me whether you regularly, occasionally or never do the following if you think a cow is lame? Firstly, do you ... (Read out)

	<u>REGULARLY</u>	<u>OCCASIONALLY</u>	<u>NEVER</u>
1. LOOK AT HER BEFORE NEXT MILKING -----	1 -----	2 -----	3 -----
2. WASH THE HOOF -----	1 -----	2 -----	3 -----
3. CLEAN OUT THE HOOF -----	1 -----	2 -----	3 -----
4. COMPARE THE SWELLING ON DIFFERENT SIDES -----	1 -----	2 -----	3 -----
5. PUT HER IN A SEPARATE HERD -----	1 -----	2 -----	3 -----
6. KEEP HER CLOSE TO THE DAIRY -----	1 -----	2 -----	3 -----
7. USE WOODEN BLOCK AS TREATMENT -----	1 -----	2 -----	3 -----
8. USE GLUE ON PLASTIC SHOE AS TREATMENT -----	1 -----	2 -----	3 -----
9. LEAVE HER FOR ONE DAY BEFORE TREATING -----	1 -----	2 -----	3 -----
10. LEAVE HER FOR 2 DAYS BEFORE TREATING -----	1 -----	2 -----	3 -----
11. LEAVE HER FOR 3 DAYS OR MORE BEFORE TREATING -----	1 -----	2 -----	3 -----
12. PUT HER ON ANTIBIOTICS -----	1 -----	2 -----	3 -----
13. USE A GLUE-ON PLASTIC SHOE -----	1 -----	2 -----	3 -----

Q14. About how many of your lame cows needed antibiotic treatment this year?

**IF AT LEAST ONE COW HAS BEEN TREATED FOR LAMENESS, ASK:**

Q15. What sort of antibiotics have you used to treat lameness? (Record in grid below)

**IF MORE THAN ONE ANTIBIOTIC MENTIONED, ASK:**

Q16. Which antibiotic would be your first choice to use for lameness? (Record in grid below)

Q17. And which antibiotic would be your 2<sup>nd</sup> choice? (Record in grid below)

	<u>Q15</u>	<u>Q16</u>	<u>Q17</u>
PENICILLIN -----	1 -----	1 -----	1 -----
OTHER (Specify) -----	2 -----	2 -----	2 -----

**FOR EACH CAUSE OF LAMENESS MENTIONED IN Q9 AND/OR Q11, ASK:**

Q18. Earlier, you mentioned some causes of lameness in your cows. I'll read through the ones you mentioned and I'd like you to tell me, from your experience, which conditions are likely to respond to antibiotic treatments. Firstly ... (Read out and record if yes)

BRUISING -----	1 -----
FOOTROT -----	2 -----
ABSCESS -----	3 -----
ULCER -----	4 -----
INFECTION -----	5 -----
WORN SOLES -----	6 -----
WHITE LINE DISEASE -----	7 -----
WET TRACKS / MUDDY SURFACES -----	8 -----
WALKING ON STONES / CONCRETE / HARD SURFACES -----	9 -----
OTHER -----	10 -----

Q19. How important do you think it is for the dairy industry to reduce the use of antibiotics? Would you say it is ... *Read out*

- VERY IMPORTANT ----- 1
- FAIRLY IMPORTANT ----- 2
- NOT TOO IMPORTANT ----- 3
- NOT IMPORTANT AT ALL ----- 4
- (*Don't read out*) DON'T KNOW ----- 5

Q20. Why do you say that?

.....

.....

.....

.....

.....

Q21. Do you do anything to try to prevent lameness in your herd?

- YES, ALWAYS ----- 1 CONTINUE
- YES, SOMETIMES ----- 2 CONTINUE
- NO ----- 3 GO TO Q23

Q22. What have you done try to prevent lameness?

.....

.....

.....

Anything else? .....

Q23. In an average year, how many cows do you cull as a result of lameness?

Q24. Where do you get information on lameness from? (*Do not prompt*)

- VET ----- 1
- NUTRITIONIST ----- 2
- DAIRY CONSULTANT ----- 3
- FIELD OFFICER ----- 4
- FACTORY / BONLAC / MURRAY GOULBURN ETC, ----- 5
- NEIGHBOURS / OTHER FARMERS ----- 6
- TRIAL AND ERROR ON FARM ----- 7
- RURAL MAGAZINES / JOURNALS ----- 8
- LOCAL PAPERS ----- 9
- NRE / DPI / DEPT OF AG ----- 10
- GIPPSDAIRY / WESTVIC DAIRY / DIDCO ----- 11
- FARMER GROUPS / TARGET 10 / INCALF ----- 12
- TV ----- 13
- RADIO ----- 14
- INTERNET ----- 15
- FIELD DAYS ----- 16
- OTHER (Specify) ----- 17

Q25. How interested are you in learning more about the diagnosis, prevention and treatment of lameness in dairy cows? Would you say you are ... *Read out*

	VERY INTERESTED -----	1	CONTINUE
	FAIRLY INTERESTED -----	2	CONTINUE
	NOT TOO INTERESTED -----	3	GO TO Q27
	NOT INTERESTED AT ALL -----	4	GO TO Q27

Q26. I'd like to read out some ways other dairy farmers have told us they would like to receive additional information on lameness. Can you please tell me whether you would be interested in receiving information on lameness by ... (*Read out, record if yes*)

A manual -----	1
A CD version of the manual -----	2
Brief information sheets -----	3
Information on the web -----	4
A video -----	5
A short course of two half day sessions -----	6
Seminar -----	7
Field days -----	8

**IF NOT INTERESTED IN RECEIVING INFORMATION ABOUT LAMENESS (Q24 = 3 OR 4), ASK:**

Q27. Why are you (FROM Q24) about receiving lameness information?

.....  
 .....  
 .....  
 Any other reasons? .....

**I JUST HAVE SOME QUESTIONS ABOUT YOU AND THEN WE'RE FINISHED**

Q28. Gender *Do not ask, simply record*

MALE -----	1
FEMALE -----	2

Q29. Which age group do you fit in to? Are you aged ... *Read out*

30 OR YOUNGER -----	1
31 – 39 YEARS -----	2
40 – 49 YEARS -----	3
50 – 59 YEARS -----	4
60 – 69 YEARS -----	5
70+ YEARS -----	6

Q30. And for how many years have you been a dairy farmer? *Read out*

5 YEARS OR LESS -----	1
6 – 10 YEARS -----	2
11 – 20 YEARS -----	3
MORE THAN 20 YEARS -----	4

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Thank you for your help. The information you've given to us will be pooled with information received from other dairy farmers and will help DRDC, GippsDairy, West Vic Dairy and DIDCO to better understand lameness in dairy cows.

As part of our quality control procedures, someone from our project team may re-contact you to validate a couple of your answers, so could I please confirm that your name is (NAME).

In case you missed it earlier, my name is (NAME) from Down To Earth Research .