INSTRUCTIONS

The work we have done so far on your farm is designed to tell us something about the behaviour of dairy cows. To continue with this work, we would like to find out more about the characteristics of commercial dairy cows. Are they similar to other farm animals or other domestic animals? Are they easy to work with? Are they quiet or noisy, intelligent or stupid?

Because you work with them all of the time, we would like to ask you to use your knowledge and experience to answer some questions about dairy cows and also some more general questions about working in the dairy industry. Your opinion on these aspects will assist us in our study of the behaviour of dairy cows.

Some questions will be about cows, some about your working with them, and some about dairy farming. It will take about half an hour to do and we would really appreciate it if you could help.

QUESTIONS

What follows are some questions designed to tell us something about how dairy cows behave at different ages. The questions will ask you to comment on how the cows react to you at different ages, and how the ease or difficulty in working with them changes. Section Two are some questions about milkers, and Section Three are about calves. Please answer each question as honestly as you can.
**Section One: Statements about cows**

Please respond to each statement in terms of a five-point scale defined by the labels: disagree strongly; disagree; neither agree nor disagree; agree; agree strongly.

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement about cows</th>
<th>Disagree Strongly</th>
<th>Disagree</th>
<th>Neither agree nor disagree</th>
<th>Agree</th>
<th>Agree Strongly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Dairy cows are easy animals to work with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Dairy cows are noisy animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dairy cows are curious animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Dairy cows are smelly animals</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>5</td>
<td>Dairy cows don’t feel pain like humans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Little experience is required to work with dairy cows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Dairy cows are a pleasure to work with</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td>Dairy cows are dirty animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Dairy cows are entertaining to watch</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Dairy cows are intelligent animals</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Dairy cows have an ugly appearance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Dairy cows are greedy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Calves are energetic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Dairy cows are easily frightened</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Dairy cows require respect</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Dairy cows are aggressive to their own kind</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Dairy cows are frustrating to work with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Dairy cows are friendly towards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Little training is required to work with dairy cows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Dairy cows are stimulating animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Dairy cows are easy to manage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Dairy cows are lazy animals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>Dairy cows are frightened of humans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Little time is required to manage dairy cows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Calves are cute</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Section Two: Questions about lactating cows

Q1 How difficult are dairy cows to care for at the ages listed below?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>Very difficult</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>Very difficult</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q2 How often do you sit or stand (say for more than 2 minutes) and just watch the cows at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>Very often</th>
<th>Very rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>Very often</th>
<th>Very rarely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q3 To what extent do your cows flinch when you put the cups on?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q4 How much time is required to effectively care for dairy cows at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Q5a  How much physical effort (e.g. pushing and slapping) is required to move the cows into the milking shed at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Q5b  How much physical effort (e.g. pushing and slapping) is required to move the cows out of the milking shed at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Q6a  How much variation in milk yield do you observe amongst your dairy cows at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Q6b  How much variation do you observe from day to day amongst dairy cows in speed of milk let down or milking time at the following ages?

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>
Q7a  How do the dairy cows, at the following ages, react to your presence in the milking shed when you are active in the shed?
   \textit{Lactating Heifers}

<table>
<thead>
<tr>
<th>Much movement</th>
<th>Little movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

\textit{Older Milkers}

<table>
<thead>
<tr>
<th>Much movement</th>
<th>Little movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q7b  How do the dairy cows, at the following ages, react to your presence in the milking shed when you are stationary?
   \textit{Lactating Heifers}

<table>
<thead>
<tr>
<th>Much movement</th>
<th>Little movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

\textit{Older Milkers}

<table>
<thead>
<tr>
<th>Much movement</th>
<th>Little movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q8a  How important is it to keep to a regular daily routine in caring for dairy cows?
   \textit{Lactating Heifers}

<table>
<thead>
<tr>
<th>Very important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

\textit{Older Milkers}

<table>
<thead>
<tr>
<th>Very important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

Q8b  How sensitive are your dairy cows to changes in the daily husbandry routine at the following ages?
   \textit{Lactating Heifers}

<table>
<thead>
<tr>
<th>Very sensitive</th>
<th>Not sensitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>

\textit{Older Milkers}

<table>
<thead>
<tr>
<th>Very sensitive</th>
<th>Not sensitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3 4 5 6 7</td>
<td></td>
</tr>
</tbody>
</table>
Q9  How often do you talk to your dairy cows during milking at the following ages?

Lactating Heifers

A lot

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

Older Milkers

A lot

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q10a  How easy are your dairy cows to move into the milking shed at the ages listed below?

Lactating Heifers

Very easy

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Older Milkers

Very easy

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

10b  How easy are your dairy cows to move out of the milking shed after milking at the ages listed below?

Lactating Heifers

Very easy

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Older Milkers

Very easy

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q11  How well do your dairy cows recognise you compared to strangers at the following ages?

Lactating Heifers

Very well

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Older Milkers

Very well

|   | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
Q12  How much variation in behaviour do you notice between the cows that first come in for milking and those that come in last for milking at each milking session?

Lactating Heifers

A lot

1  2  3  4  5  6  7

Very little

Older Milkers

A lot

1  2  3  4  5  6  7

Very little

Q13a  How much verbal effort (whistling, shouting) is required to move the dairy cows into the milking shed at the following ages?

Lactating Heifers

A lot of effort

1  2  3  4  5  6  7

Very little effort

Older Milkers

A lot of effort

1  2  3  4  5  6  7

Very little effort

Q13b  How much verbal effort (whistling, shouting) is required to move the dairy cows out of the milking shed at the following ages?

Lactating Heifers

A lot of effort

1  2  3  4  5  6  7

Very little effort

Older Milkers

A lot of effort

1  2  3  4  5  6  7

Very little effort

Q14  How often do you have a problem with cups falling off during milking?

Lactating Heifers

Very often

1  2  3  4  5  6  7

Never

Older Milkers

Very often

1  2  3  4  5  6  7

Never
Q15  **How timid are your cows at the following ages?**

*Lactating Heifers*

<table>
<thead>
<tr>
<th>Very timid</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all timid</th>
</tr>
</thead>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>Very timid</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Not at all timid</th>
</tr>
</thead>
</table>

Q16  **Do you use automatic cup removers after milking? (Yes or No)**

*Lactating Heifers*

Yes | No

*Older Milkers*

Yes | No

Q17  **How difficult is it to break your heifers into milking?**

<table>
<thead>
<tr>
<th>Very difficult</th>
<th>Very easy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</tbody>
</table>

Q18  **How often do you pat or stroke your dairy cows during milking at the following ages?**

*Lactating Heifers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>A lot</th>
<th>Very little</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</tbody>
</table>

Q19  **How important is it to keep to a regular daily routine in caring for dairy cows?**

*Lactating Heifers*

<table>
<thead>
<tr>
<th>Very important</th>
<th>Not important</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</tbody>
</table>

*Older Milkers*

<table>
<thead>
<tr>
<th>Very important</th>
<th>Not important</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
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</tbody>
</table>
Section Three: Questions about calves

Q20  How difficult are calves to care for?
Very difficult
1  2  3  4  5  6  7

Q21  How often do you sit or stand (say for more than 2 minutes) and just watch your calves?
Very often
1  2  3  4  5  6  7

Q22  How much time is required to effectively care for calves?
A lot
1  2  3  4  5  6  7

Q23  How much physical effort (e.g. pushing and slapping) is required to move calves?
A lot
1  2  3  4  5  6  7

Q24  How important is it to keep a regular daily routine in caring for calves?
Very important
1  2  3  4  5  6  7

Q25  How sensitive are your calves to changes in the daily husbandry routine?
Very sensitive
1  2  3  4  5  6  7

Q26  How well do your calves recognise you compared to strangers?
Very well
1  2  3  4  5  6  7

Q27  How timid are your calves?
Very timid
1  2  3  4  5  6  7