

Additional file 1: Farmer questionnaire used to obtain data of bovine digital dermatitis in Norwegian dairy herds

Information about the herd:

Name of farmer:

.....

Herd identity (8 numbers):.....

The usefulness of this study will be improved if you provide your farmer identity. All responses and results will be handled and presented confidentially.

Management:

1. How many persons, including yourself, are working in the barn handling the cattle? Choose one alternative.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6 or more

2. Do any of these also work with other cattle herds? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

3. Which type of alley-flooring dominates in your barn? Choose one alternative.

- ☐ Solid concrete
- ☐ Slatted concrete
- ☐ Solid rubber
- ☐ Slatted rubber
- ☐ A mix of concrete and rubber
- ☐ Others

4. Describe the cleaning routines of the alleys in your barn. Choose one or more alternatives.

- ☐ By the steps of the cows
- ☐ Automatic manure scraper
- ☐ Automatic manure robot
- ☐ Manual scraping
- ☐ Truck/tractor
- ☐ Other (please specify):

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5. Describe the bedding in the cubicles / tie stalls. Choose one or more alternatives.
- ☐ Rubber mats
 - ☐ Mattresses
 - ☐ Sand
 - ☐ Concrete
 - ☐ Other (please specify):
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6. Do you use litter in your cubicles / tie stalls? Choose one alternative.
- ☐ Yes
 - ☐ No
 - ☐ I don't know
7. Do you use disinfectant litter in your cubicles / tie stalls? Choose one alternative.
- ☐ Yes
 - ☐ No
8. Have you installed an automatic milking system (AMS)? Choose one alternative.
- ☐ Yes
 - ☐ No
9. Have you installed a claw washing system in your AMS or at other locations in your barn?
Choose one alternative.
- ☐ Yes
 - ☐ No (*move on to question 11*)
 - ☐ I don't know (*move on to question 11*)
10. If yes, do you use soap or disinfection in your claw washing system? Choose one alternative.
- ☐ Yes
 - ☐ No, only water
 - ☐ Others
11. Do you use disinfectant footbaths for your dairy cows? Choose one alternative.
- ☐ Yes
 - ☐ No (*move on to question 14*)
 - ☐ I don't know (*move on to question 14*)

12. How long have you been using disinfectant footbaths? Choose one alternative.

- ☐ Less than 1 month
- ☐ 1-6 months
- ☐ 7-12 months
- ☐ More than 1 year

13. How often do your cows walk through the footbath? Choose one alternative.

- ☐ Twice daily
- ☐ Once daily
- ☐ Several times a week
- ☐ Once a week
- ☐ Several times a month
- ☐ Once a month
- ☐ Once every second week
- ☐ Once every 6. month
- ☐ Other (please specify):

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14. Do you perform annual cleaning of the barn? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

Biosecurity – contact with other cattle herds

15. Have you purchased cattle during the last 5 years? Choose one alternative.

- ☐ Yes
- ☐ No (*move on to question 21*)
- ☐ I don't know (*move on to question 21*)

16. If yes, when did the last animal arrive? Choose one alternative.

- ☐ During the last year
- ☐ During the last 2 years
- ☐ During the last 3 years
- ☐ During the last 4 years
- ☐ During the last 5 years
- ☐ I don't know

17. Are these cattle bought from permanent suppliers? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

18. Do you require claw health documentation before purchase of livestock? Choose one alternative.

- ☐ Yes
- ☐ No (*move on to question 20*)
- ☐ I don't know (*move on to question 20*)

19. If yes, what kind of claw health documentation do you require before purchase of new animals?

Choose one alternative.

- ☐ On individual cow level
- ☐ On herd level
- ☐ On both individual cow and herd level
- ☐ I don't know

20. Are purchased animals placed in quarantine before they enter your herd? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

21. Do you sometimes house animals from other herds, for example to fill your milk quota? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

22. Are all cattle or parts of your herd on summer pasture? Choose one alternative.

- ☐ Yes
- ☐ No (*move on to question 25*)
- ☐ I don't know (*move on to question 25*)

23. Does your herd share pasture with other herds? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

24. Does your herd share transport to pasture with other herds? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

25. Transport to the slaughterhouse. Which alternatives are correct for your herd? Choose one or more alternatives.

- ☐ The slaughterhouse-transport driver is never inside my barn and I am never entering the transport
- ☐ The slaughterhouse-transport driver is fetching the animals in a restricted area inside my barn
- ☐ Animals are fetched by the slaughterhouse-transport driver from the barn
- ☐ The transport is parked partially inside the barn
- ☐ None of the alternatives (please specify):

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Claw trimming routines and claw health

26. On average, how many times are your cows trimmed each year? Choose one alternative.

- ☐ Less than once
- ☐ Once
- ☐ Twice
- ☐ Three times
- ☐ Four times
- ☐ Other alternatives (please specify):

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27. Who performs the trimming? Choose one or more alternatives.

- ☐ Certified professional trimmer
- ☐ Uncertified professional trimmer
- ☐ The farmer or members of the staff
- ☐ Others (please specify):

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28. Are all dairy cows trimmed / examined in the chute at each routine trimming? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

29. Are all pregnant heifers trimmed / examined in the chute at each routine trimming? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

30. Are the cows' feet cleaned in the chute before trimming? Choose one alternative.

- ☐ Yes
- ☐ No (*move on to question 32*)
- ☐ I don't know (*move on to question 32*)

31. If yes, how many of the trimmed animals get their feet cleaned? Choose one alternative.

- ☐ All
- ☐ Most
- ☐ Approximately half of them
- ☐ Less than half of them
- ☐ Only a few
- ☐ I don't know

32. Do any of your cows have the foot disease digital dermatitis? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

33. Do the trimming chute and trimming equipment look clean when the professional trimmer arrives? Choose one alternative.

- ☐ Yes
- ☐ No
- ☐ I don't know

Biosecurity barrier

34. Is there a biosecurity barrier in the entrance of your barn? Choose one alternative.

- ☐ Yes
- ☐ No (*you have finished the questionnaire*)
- ☐ I don't know (*you have finished the questionnaire*)

35. If yes, mark the facilities installed:

Type of facility	Yes	No
<i>Handwash with soap in clean area</i>		
<i>Handwash with soap in unclean area</i>		
<i>Visible and elevated border between clean and unclean area</i>		
<i>Grid on each side of border separating clean and unclean area</i>		
<i>Boots for visitors</i>		
<i>Coveralls for visitors</i>		



Photo from Animalia AS and Koorimp's pamphlet "Biosecure".