

# Questionnaire about hygiene and disease control in livestock

## Information and instructions

This questionnaire is aimed for farm owners and farm workers who handle cattle, pigs, sheep, goats or poultry. We are interested in responses from farms of different sizes.

The questionnaire takes about 15 minutes to answer and deals with perceptions, motivations and barriers to hygiene and infection control in Swedish herds. We are not searching for right or wrong answers, but we genuinely want to know how you handle things in practice and how you perceive different situations. The results will provide a basis for improving efforts to prevent and control infectious diseases in livestock.

The second half of the questionnaire deals with protective clothing and persons visiting farms as part of their profession. It is based on a behavioural science method, and many questions may seem similar. This is however how it is meant to be.

The questionnaire does not cover all the different routes of infection, such as trade with live animals, because this is examined in other studies.

In many of the questions you will be asked to give your response on a seven-point scale, e.g. from 'strongly agree' to 'strongly disagree'. Tick the option you spontaneously feel closest to your opinion or behaviour. If you do not have a clear view, select the middle option. If there is a question that you feel that you cannot answer, leave it blank and move on to the next.

Please note that your reply to this questionnaire is completely anonymous.

## A. The FARM and YOUR BACKGROUND

**Enter the number of animals of different production types on the farm. An approximate number is OK. If the stables are just temporarily empty (e.g. between batches), enter how many animals that are usually present.**

### 1. Cattle, fill in the number of animals on the line that matches the farm production type

Dairy production	<input type="text"/>	Number of dairy cows
Beef and/or suckler cows	<input type="text"/>	Number of cows
Purchase of calves for fattening	<input type="text"/>	Number of animals sent to slaughter each year
Other type of production	<input type="text"/>	Number of cattle

### 2. Pigs, fill in the number of animals on the line that matches the farm production type

e.g. if the farm has pigs for fattening, just fill in the number of pigs slaughtered per year, but if the farm is integrated, fill in both the number of slaughtered fattening pigs and the type of piglet production.

Breeding or gilt production	<input type="text"/>	Number of sows
Multiplying	<input type="text"/>	Number of sows
Fattening	<input type="text"/>	Number of fattening pigs slaughtered each year
Sow pool centre	<input type="text"/>	Number of sows
Sow pool satellite	<input type="text"/>	Number of piglets produced each year

**3. Sheep and goats**

Sheep  Number of ewes

Goats  Number of does

Lambs or kids  Annual number

**4. Poultry, fill in the number of animals on the line that matches the farm production type**

Breeding  Number

Egg production  Number of hen places

Broiler  Number of slaughtered birds per year

Hobby  Number

Other types of poultry  Number of birds

**5. Exotic ruminants (e.g. bison, wisent, camel, alpaca, llama)**

Fill in species and total number (i.e. count females, males and young animals)

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**6. Is the farm's livestock production certified organic?**

- No
- Don't know
- Yes, fill in type of certificate system below

Certificate:

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**7. If you have comments to the questions above, please write here**

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**8. In what county is the farm located?**

- Blekinge    Halland    Kronoberg    Södermanland    Västernorrland  
 Dalarna    Jämtland    Norrbotten    Uppsala    Västmanland  
 Gotland    Jönköping    Skåne    Värmland    Västra Götaland  
 Gävleborg    Kalmar    Stockholm    Västerbotten    Örebro  
 Östergötland

**9. What is your role on the farm?**

- Owner  
 Employed foreman  
 Employed  
 Other

**10. How many people work with the animals on the farm, including yourself?**

Number of persons full time

Number of persons part time

**11. How old are you?**

- 30 or younger  
 31-40  
 41-50  
 51-60  
 61-70  
 over 70

**12. What is your gender?**

- Woman  
 Man  
 Prefer not to fill in

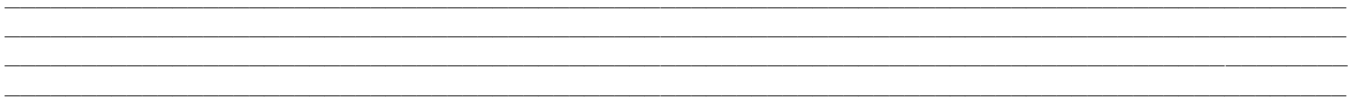
**13. Enter your education level**

- Compulsory school  
 Upper secondary school  
 University or equivalent

**14. Were any of these educations programs agriculture oriented?**

- Yes  
 No

**15. If you have comments to the questions above, please write here**



**16. How many years have you been working with the animal species present on the farm?**

If there are multiple species, specify the time for the species that you have work longest with

- 0-5 years
- 6-10 years
- 10-20 years
- More than 20 years

**17. If you own the farm, what is the purpose of the livestock production?**

Keeping livestock is a hobby        I keep livestock to make a living

**18. I you are the owner of the farm, what is your plan for the livestock production in 5 years from now?**

(specify one or more options)

- Production is discontinued
- I am about to discontinue production
- The number of animals has been decreased
- Production is the same as today
- I have increased the number of animals
- I have changed the type of production
- A successor has taken over

**19. If you are employed, do you plan to stay within this profession in 5 years from now?**

Yes, I want to continue        No, I want to quit

**20. If you have comments to the questions above, please write here**

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## B. INFECTIOUS LIVESTOCK DISEASES

**21. To keep the herd free from infectious diseases is very important for me**

Totally disagree         Totally agree

**22. If the animals are regularly exposed to infections, they will become more resistant and have less disease**

Totally disagree         Totally agree

**23. If infectious disease would spread from my herd to other herds, there would be negative consequences for me**

Totally disagree         Totally agree

**24. An outbreak of infectious disease in my herd would have negative effects on my economy**

Totally disagree         Totally agree

**25. Has the farm experienced an outbreak of infectious disease that seriously affected the animals or production?**

Many times         Never

**26. Do you know how different infectious diseases spread and what you can do to prevent introduction of infections into the herd?**

Do not know at all         Know very well

**27. Do you believe that you can influence whether the herd is affected by infectious diseases or not?**

Yes, to a high degree         No, not at all

**28.** Sometimes farms are affected by outbreaks of serious infectious diseases, where the state offers economic compensation for production losses, values of animals and cleaning. By applying certain biosecurity routines, the risk to introduce some of these infections can be decreased.

**Do you think that all affected farmers should get equal compensation level, whether or not they have routines present to prevent introduction of the disease in question (e.g. through participation in a biosecurity programme)?**

No, the ones without routines should not have anything at all         Yes, everyone should have the same         Don't know

**29. If you have comments to the questions above, please write here**

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## C. RISK COMMUNICATION AND INFORMATION

### 30. Consider the following scenario:

*Recently, your herd has experienced diffuse problems with coughing and you decide to try and find out more about potential causes.*

**How would you prefer to access the information needed?** (Specify one or more options)

**I prefer:**

- Websites of Swedish authorities and universities
- Websites of Swedish animal health organisations and associations
- Websites of insurance companies
- Other producers web pages
- Foreign websites
- Video clips online (e.g. clips of animals with symptoms, lectures etc.)
- Discussions with friends, acquaintances, colleagues
- Industry branch journals and magazines
- Books and compendia
- Lectures and courses
- conferences and fairs
- Discussions with the farm vet
- Short summaries and pamphlets
- National phone line for medical information
- Smart phone applications
- Other

If other, please specify:

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**31. Consider the following scenario:**

*A serious animal disease, never before seen in Sweden, is demonstrated at the National Veterinary Institute (SVA). In order to provide information about the outbreak and prevent further spread of infection, the authorities' disease control experts want to reach Swedish farmers as soon as possible.*

**What is the best and most effective way for them to reach you with this information?  
Select the options that you think are good or bad.**

	good	bad
Letters by post from the authorities to animal owners	<input type="radio"/>	<input type="radio"/>
Updated information on the website of SVA	<input type="radio"/>	<input type="radio"/>
Updated information on the website of the Board of Agriculture	<input type="radio"/>	<input type="radio"/>
Social media (e.g. Twitter, Facebook)	<input type="radio"/>	<input type="radio"/>
E-mail list for spread of information from authorities to animal owners	<input type="radio"/>	<input type="radio"/>
Phone text messages from authorities to animal owners	<input type="radio"/>	<input type="radio"/>
Smartphone application	<input type="radio"/>	<input type="radio"/>
Local radio	<input type="radio"/>	<input type="radio"/>
Local information meeting	<input type="radio"/>	<input type="radio"/>
Better reached by other means (please describe how):		

**32. If you have comments to the questions above, please write here**

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**33. Would you consider buying animals from herds with an unknown disease status?**

*i.e. you do not know their disease morbidity level and if they are affiliated to relevant disease control programs*

No, I would never do that        Yes, that does not restrict purchase of animals

**34.** *Assume that the affiliation and status of individual herds in different control programs is summarised and made freely available online.*

**I would like the health status of my herd to be freely available to all.**

Totally disagree        Totally agree

**35. To be able to find out the health status of other herds is**

Very valuable        Completely unnecessary

**36. If you have comments to the questions above, please write here**

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**42. If the farm has compartmentation, is it your routine to empty and clean buildings between batches?**

- Yes
- No
- No compartmentation

**43. Is it your routine to empty and clean all animal stables at least once a year?**

- Yes
- No

**44. If you are the owner of the farm:**

**Who are your key advisers and information channels for new construction, renovation, or reconstruction of stable buildings?**

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**45. If you have built new stables, or renovated/rebuilt stables in the last 5 years:  
Did you consider hygiene and disease control?**

e.g. sanitation facilities, hygiene barriers, that feed do not come into contact with manure, compartmentation, quarantine housing, sanitary systems in feed or feed table, sick box, entrance for visitors, etc.

Have not built or renovated in the last 5 years

No consideration         Much consideration

**46. Did anything prevent you from taking this into account?**

- Yes
- No

If yes, describe: What prevented you?

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**47. Have the advisers that you have engaged in construction or renovation paid careful attention and discussed disease control and hygiene issues with you?**

Not at all        To a large extent

**48. Place for comments to the questions above**

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**53.** *It is a Sunday morning and you have been forced to call for a vet. It's not your ordinary vet but someone new who you have not met before and who seems stressed from other emergency calls waiting. You can see that the vet puts on a clean coat but the vet's shoes are not properly cleaned – there are traces of manure on them.*

**Do you ask the vet to change or clean the boots before the vet enters the stables?**

No, not likely        Yes, very likely

**54.** *A new neighbour who has started recently started a hobby farm with animals of the same species as yours comes by your farm in her stable clothes to ask you something. You are busy inside the stable and cannot come out to the yard.*

**Do you ask your neighbour to put on protective clothing before entering the animal stables?**

No, not likely        Yes, very likely

**55.** *A salesman who wants to offer a product that you are interested in is visiting your farm. The salesman looks clean but wears leather shoes that seem difficult to wash.*

**Do you ask the salesman to put on protective clothing before he enters the animal stable?**

No, not likely        Yes, very likely  I never let salesmen enter the stables

**56.** *A neighbours' children (who does not have production animals at home) want to come in and have look in the stables. They bring a couple of friends from school that you haven't seen before and you don't know if they have animals at home.*

**Do you ask the children to put on protective clothing before they enter the animal stables?**

No, not likely        Yes, very likely  I don't let the children enter the stables

**57.** *You have heard that there is an ongoing outbreak with serious coughing and sickness among animals at some farms within your business branch. One of your acquaintances, who has animals of the same species as you, wants to come in for a chat and have a look at your animals.*

**Do you ask your acquaintance to put on protective clothing before he enters the stables?**

No, not likely        Yes, very likely  I don't let the visitor enter the stables

**58. Place for comments to the questions above**

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By **professionals visiting farms**, we mean e.g. **craftsmen, veterinarians, transporters, advisers, inseminators** or **inspectors**.

By protective clothing, we mean **boots or shoe covers, and coats or coveralls**. It can be protective clothing offered by the farm or the visitor's own clean protective clothing.

**Note that elements of the TPB methodology was not given in the original questionnaire.**

**59. To make sure that professionals visiting the farm use protective clothing is**

Of great benefit        Not of any benefit at all  
Cumbersome       Easy  
Essential       Unimportant

**Direct measures of Attitude**

**60. To make sure that professionals visiting the farm use protective clothing is unnecessary because the health status of animals in Sweden is so good**

Do not agree at all        Agree completely

**61. Professionals visiting the farm will think that I'm being difficult if I ask them to use protective clothing**

Unlikely        Very likely

**Behavioral Belief**

**62. If professionals visiting the farm use protective clothing or not will influence the health status of the herd**

No, not likely        Yes, very likely

**Behavioral Belief**

**63. To make sure that professionals visiting the farm wear protective clothing will decrease the risk that my herd will suffer from outbreaks of infectious diseases**

Unlikely        Very likely

**Behavioral Belief**

**64. Professionals that visit the farm will think that I don't trust them if I ask them to use protective clothing**

Unlikely        Very likely

**Behavioral Belief**

**65. Place for comments to the questions above**

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**66. The animals' health is very important to me**

**Outcome Evaluation**

Do not agree at all        Agree completely

**67. To keep the herd free from infectious diseases is very important to me**

**Outcome Evaluation**

Do not agree at all        Agree completely

**68. I really don't want professionals visiting the farm to think that I'm being difficult**

**Outcome Evaluation**

Do not agree at all        Agree completely

**69. If professionals that visit the farm think that I'm being difficult this could have a negative effect on the service that they give**

**Outcome Evaluation**

No, not likely        Yes, very likely

**70. It is important to me to have a good relationship with the professionals that visit the farm and that they don't think that I distrust them**

**Outcome Evaluation**

Do not agree at all        Agree completely

**71. It is expected of me that I make sure that professionals that visit the farm wear protective clothing**

**Direct measure of Subjective Norm**

Do not agree at all        Agree completely

**72. Place for comments to the questions above**

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**81. Within my branch of farming it is considered important that professionals that visits farms use protective clothing**

Do not agree at all         Totally agree

**Normative Belief**

**82. Is it important to you to follow the industry guidelines?**

Very important        Not at all important

**Motivation to Comply**

**83. The farm neighbours that have production animals think that professionals that visit farms should use protective clothing**

**Normative Belief**

Has no neighbours with production animals

Do not agree at all         Totally agree

**84. I care about what the neighbours with production animals think about what I do**

Has no neighbours with production animals

Not at all        Very much

**Motivation to Comply**

**85. Swedish authorities with a link to production animals (e.g. the National Veterinary Institute, the Board of Agriculture, and the County Board) think that it is important that professionals that visit farms use protective clothing**

Do not agree at all         Totally agree

**Normative Belief**

**86. What Swedish authorities with a link to production animals (e.g. the National Veterinary Institute, the Board of Agriculture, and the County Board) think about what I do is important to me**

Not at all        Very much

**Motivation to Comply**

**87. Place for comments to the questions above**

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By protective clothing, we mean **boots or shoe covers, and coats or coveralls**. It can be protective clothing offered by the farm or the visitor's own clean protective clothing.

**88. To make professionals that visit the farm use protective clothing is entirely up to me**

Do not agree at all         Totally agree

**Direct measure of Perceived Behavioral Control**

**89. To make professionals that visit the farm use protective clothing is**

Impossible         Possible

**Direct measure of Perceived Behavioral Control**

**90. I'm convinced that I could make professionals that visit the farm use protective clothing if I wanted to**

Do not agree at all         Totally agree

**Direct measure of Perceived Behavioral Control**

**91. In general, is it your experience that you are able to influence how professionals that visit the farm behave when they are at the farm?**

Never         Always

**Direct measure of Perceived Behavioral Control**

**92. Professionals that visit the farm are often in a hurry**

Do not agree at all         Totally agree

**Control Belief**

**93. When professionals that visit the farm are in a hurry, the probability is...**

high         low ...that I ask them to use protective clothing

**Control Belief Power**

**94. It happens frequently that professionals that visit the farm enter the animal stables without someone from the farm being present**

Do not agree at all         Totally agree

**Control Belief**

**95. By using an obvious hygiene barrier and/or instructions, I can usually make professionals that visit the farm use protective clothing, even if no one from the farm is present when they enter the stables**

Do not agree at all         Totally agree  Cannot answer

**Control Belief Power**

**96. Place for comments to the questions above**

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By protective clothing, we mean **boots or shoe covers, and coats or coveralls**. It can may be protective clothing offered by the farm or the visitor's own clean protective clothing.

**97. Is it your experience that professionals that visit the farm don't think that they need to use protective clothing?**

Never        Always

**Control Belief**

**98. If a professional who visits the farm don't think that it's necessary to use protective clothing, the probability is...**

high        low ...that I can make that visitor use protective clothing

**Control Belief Power**

**99. Does it happen that protective clothing offered at the farm does not fit the visitor because the size is wrong?**

That never happens        It happens very often

The farm does not offer visitors protective clothing

**Control Belief**

**100. It is difficult for me to make a visitor use protective clothing if the size is wrong**

Do not agree at all        Totally agree

The farm does not offer visitors protective clothing

**Control Belief Power**

**101. It is difficult and takes a lot of time to keep protective clothing clean**

Do not agree at all        Totally agree

**102. Protective clothing offered at the farm is often dirty**

Do not agree at all        Totally agree

The farm does not offer visitors protective clothing

**Control Belief**

**103. It would be difficult for me to make a visitor use protective clothing if it was dirty**

Do not agree at all        Totally agree

**Control Belief Power**

**104. It is expensive to offer protective clothing to all professionals that visit the farm**

Do not agree at all        Totally agree

**Control Belief**

**105. Do costs influence the choice to offer (or not to offer) visitors protective clothing?**

To a high degree        Not at all

**Control Belief Power**

**How did you first come into contact with this questionnaire?**

- It was posted by mail
- It was sent by e-mail
- I found it on Internet

**If you have any other comments, please write here**

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**THANK YOU for participating in this study!**