



BIOCHECK CATTLE



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~. Farm characteristics

I. How many <u>years</u> of experience in keeping cattle does the person in charge have?

.....

II. Who performs the farm work with the cattle?

Employees are part of the permanent staff, whereas the contractors are temporary staff.

Check any that apply.

- □ The herd owner
- □ The family member(s)
- \Box The employee(s)
- □ The contractor(s)

III. How many bulls are there on the farm?

.....

IV. How big is the lactating herd size?

.....

V. How many dry cows are there on the farm?

.....

VI. How many heifers are there on the farm?

.....

VII. How many weaned calves are there on the farm?

.....

VIII. How many suckling calves are there on the farm?

.....

A. Purchase and reproduction

1. Are cattle being purchased? (required)

Check any that apply.
Yes; calves, youngstock and non-pregnant heifers
Yes, bulls for reproduction
Yes, pregnant cows
Yes, lactating cows
No

If "Yes, calves, youngstock and nonpregnant heifers", go to question 2.3.

If "Yes, bulls for reproduction", go to question 2.4.

If "Yes, pregnant animals", go to question 2.1.

If "Yes, lactating animals", go to question 2.2.

If "No", go to question 15.

2.1. How often <u>a year</u> are pregnant cows bought? (required)

If less than once a year, use decimals e.g. 0.5 for once every two years.

.....

2.2. How often <u>a year</u> are lactating cows bought? (required)

If less than once a year, use decimals e.g. 0.5 for once every two years.

.....

2.3. How often <u>a year</u> are calves or nonpregnant heifers bought? *(required)*

If less than once a year, use decimals e.g. 0.5 for once every two years.

.....

2.4. How often <u>a year</u> are bulls for reproduction bought? (required)

If less than once a year, use decimals e.g. 0.5 for once every two years.

.....

3. Are your cattle during the past 2 years always bought from the same original source? *(required)*

Same original source: the same farm of origin where the animals are born.

- ∘ Yes
- \circ No, I buy from the salesman or on the market
- \circ No, I buy from multiple sources

4. Before the cattle arrives on your farm, is contact between your cattle and animals from different farms possible (direct or indirect contact)? *(required)*

For example at the salesman's stables, during transport, ...

Select one option.

- ∘ Yes
- **No**
- \circ I don't know

5. Whenever cattle are bought from another farm, is proof requested to ensure that the sanitary statute and health management of the farm of origin is equal or higher than your own farm? *(required)*

Select one option.

- Always
- \circ Sometimes
- Never

6. Is the level of maternal immunity checked when buying calves? (required)

Select one option.

- Always
- Sometimes
- \circ Never

7. Are the cattle tested for specific diseases when entering the farm (i.e. entering protocol or other tests)? *(required)*

Select one option.

- Always
- \circ Sometimes
- \circ Never

8. Are all new cattle put into quarantine? (required)

Quarantine is isolating bought animals in an area physically separated from other animals. Physically separated means in a physically separated air volume, both above and below the ground.

Select one option.

- Always
- Sometimes
- \circ Never
- If "Never", go to question 13.

9. What is the minimum duration (<u>in days</u>) of the quarantine period? *(required)*

.....

10. Are ... before entering the quarantine? (required)

	Always	Sometimes	Never
compartment-specific boots used	0	0	0
compartment-specific clothes used	0	0	0
hands washed/gloves used	0	0	0

11. Is the quarantine empty after an animal has been in quarantine? *(required)*

Select one option.

Always

Sometimes

 \circ Never

If "Never", go to question 13.

12. Is the quarantine area ... before the introduction of new cattle? *(required)*

Cleaning: the physical removal of foreign material. Disinfection: cleaning with chemical agents that inactivate organisms.

	Always	Sometimes	Never
cleaned	0	0	0
disinfected	0	0	0
dry	0	0	0

13. Are the newly introduced cows milked separately during their quarantine period? *(required)*

Select one option.

 \circ Yes, they're milked with a separate machine

• Yes, they're milked last

- Yes, they're milked first
- $\circ No$

○ N/A

14. Is a milk sample from the newly introduced cows taken and tested, before they are introduced or at the start of lactation in the quarantine stable? *(required)*

Select one option.

∘ Always

 \circ Sometimes

 \circ Never

15. Are there any cattle that leave the farm and return afterwards? *(required)*

E.g. shows and competitions, this does not include going on pasture.

Select one option.

Yes
No
If "No" is chosen, go to question 17.

16. Are these returning cattle put into quarantine like described before? (required)

Select one option.

- Always
- Sometimes
- Never

17. Are the cattle on your farm bred? If yes, how? (required)

Select one option.

- Yes, with artificial insemination/embryo transplantation
- Yes, with natural service
- \circ Yes, with both artificial insemination/embryo transplantation and natural service \circ No
- If "Yes, artificial insemination/ embryo transplantation", go to question 19.

If "Yes, with natural service"; go to question 18, but skip question 19. If "No", go to question 20.

18. Has the bull's semen been tested for sexually transmitted diseases? *(required)*

Select one option.

- Always
- \circ Sometimes
- \circ Never

19. Does the semen, used for artificial insemination/embryo transplantation, come from a farm/institution with a health status known to be higher or equal than your own farm? *(required)*

- Always
- Sometimes
- \circ Never

B. Transport and carcass removal

20. Do all vehicles have to pass through clean transport baths before entering the farm? *(required)*

Select one option.

- \circ Always
- \circ Sometimes
- \circ Never

21. Do external transport vehicles and transporters have access to any of the areas where cattle are kept? *(required)*

Select one option.

∘ Yes

 $\circ No$

22. When cattle are delivered to the farm, are only the animals that are supposed to be delivered to your herd in the transport vehicle? *(required)*

Select one option.

- Always
- Sometimes
- \circ Never

23. Is the transport vehicle for the cattle empty on arrival at the farm? *(required)*

Select one option.

- Always
- Sometimes
- \circ Never

If "Sometimes" or "Never", go to question 25.

24. Is the transport vehicle always cleaned and disinfected before entering the farm? *(required)*

Select one option. • It's cleaned and disinfected • It's only cleaned • No • I don't know

25. Is there a separate carcass storage space with a hard surface floor present? (*required*)

Select one option. • Yes • No If "No" is chosen, go to question 27.

26. Is this carcass storage space cleaned and disinfected after each use? *(required)*

Select one option.

It's cleaned and disinfected
It's only cleaned
No
I don't know

27. Is the carcass storage space protected from vermin, cats and dogs? *(required)*

Select one option.

∘ Yes

∘ No

28. Can the carcasses be removed by the rendering company without them entering the premises of the farm? *(required)*

Select one option.

∘ Yes

• **No**

29. Are carcasses manipulated with gloves, or are hands cleaned and disinfected after manipulation of carcasses? *(required)*

Select one option. • Always

- Sometimes
- \circ Never

30. Is all the material used for the manipulation of carcasses cleaned and disinfected? *(required)*

- Always
- Sometimes
- \circ Never

C. Feed and water

31. Are the feed storage facilities (e.g. ensilaged feed, feed mixer, concentrates, ...) protected from pets and vermin? *(required)*

Select one option.
Yes, but only from pets
Yes, from both pets and vermin
No

32. Are feeding utensils used only for feed (e.g there's no double use for manure)? *(required)*

Select one option.

- Always
- Sometimes
- \circ Never

33. Is the quality of the drinking water checked every year at the source or at the storage tank by means of a bacteriological analysis? *(required)*

Select one option.

- \circ Yes
- \circ No, but I'm using the water supply
- \circ No

34. Is the quality of the drinking water checked every year at the main outlets (i.e. where the cattle drink) by means of a bacteriological analysis? *(required)*

Select one option.○ Yes○ No

D. Visitors and farmworkers

35. Are visitors obliged to notify you of their presence before entering the stables (e.g. visitor's register)? *(required)*

Select one option.

- Always
- \circ Sometimes
- \circ Never

36. Is there a separate space available for changing boots and clothes and washing hands/putting on gloves? *(required)*

Select one option.

∘ Yes

 $\circ No$

37. Are there any farmworkers who also work at (or frequently visit) other farms? *(required)*

Frequently: at least once a week.

Select one option.

- \circ Yes
- \circ No
- \circ I don't know

38. Upon entering the farm, does the farm personnel ... (required)

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

39. Upon entering the farm, does the veterinarian... (required)

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

40. Does the artificial insemination technician come to the farm? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 42.

41. Upon entering the farm, does the artificial insemination technician... *(required)*

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

42. Does the cattle salesman come to the farm? (required)

Select one option. • Yes • No If "No", go to question 44.

43. Upon entering the farm, does the cattle salesman... (required)

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

44. Does the hoof trimmer come to the farm? (required)

Select one option. • Yes • No If "No" is chosen, go to question 46.

45. Upon entering the farm, does the hoof trimmer... (required)

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

46. Are there any other visitors (e.g. feed supplier, advisors, milk collector, any others) that enter the farm and come into contact with the cattle? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 48.

47. Upon entering the farm, do these other visitors (e.g. salesman, feed supplier, advisors, milk collector, any others)... *(required)*

	Always	Sometimes	Never
use farm-specific boots?	0	0	0
use farm-specific clothes?	0	0	0
wash their hands/use gloves before entering?	0	0	0

E. Vermin control and other animals

48. Is an insect control programme present on the farm? (required)

Control programme: a regular protocol containing the control measures.

Select one option. • Yes • No

49. Is a rodent control programme present on the farm? (required)

Select one option. • Yes • No

50. Is a bird control programme present on the farm (e.g. netting to keep birds out)? *(required)*

Select one option. • Yes • No

51. Do your cattle, including the youngstock, have access to the outside? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 53.

52. When your cattle go outside, do they have access to natural water bodies (e.g. brooks and ponds)? *(required)*

Select one option. • Yes • No

53. Is it possible for your cattle to come into contact with animals from other farms? *(required)*

Select one option. • Yes • No

54. Are there other commercially exploited cattle present on the farm? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 56.

55. Can these other commercially exploited cattle come into contact with the dairy cows? *(required)*

Select one option. • Yes • No

56. Are any other farm animals being kept? (required)

Check any that apply.

- □ Sheep
- Goats
- □ Pigs
- □ Horses
- □ Poultry (more than 10 birds)
- $\square \ None$

57. Do pets have access to the stables? (required)

Select one option.

- Dogs (and cats)
- Only cats

 $\circ \ \text{None}$

58. Is manure from other farms being spread on farmlands within a 500metres radius (0.3 miles) of your farm and pastures? *(required)*

- $\circ \, \text{Yes}$
- \circ No
- I don't know

F. Health management

59. Are the sick cattle physically isolated from the healthy cattle? *(required)*

Isolated: physically separated with no possible contact with healthy animals. Physically separated: in a physically separated air volume, both above and below the ground.

Select one option.

- Always
- \circ Sometimes
- \circ Never

If "Never" is chosen, go to question 67.

60. Are there equipment and materials (e.g. buckets, thermometer, cleaning and feeding utensils, gastric tubes, ...) specific for the sick cattle in the hospital pen? *(required)*

Select one option.

 \circ Yes

 $\circ No$

If "No" is chosen, go to question 62.

61. Is this specific equipment cleaned and disinfected before a new animal enters the hospital pen? *(required)*

Select one option. • It's cleaned and disinfected • It's only cleaned • No

62. Are the cattle in the hospital pen fully separated from the other cattle? (*required*)

Full separation: no (in)direct contact possible between the cattle in the hospital pen and the other cattle.

Select one option. • Yes • No If "No" is chosen, go to question 64.

63. Are ... before entering the hospital pen? (required)

	Always	Sometimes	Never
compartment-specific boots used	0	0	0
compartment-specific clothes used	0	0	0
hands washed/gloves used	0	0	0

64. Is the hospital pen empty after each use? (required)

Select one option. • Yes • No If "No" is chosen, go to question 66.

65. Is the hospital pen ... before each new introduction of sick cattle? *(required)*

	Always	Sometimes	Never
cleaned	0	0	0
disinfected	0	0	0
dry	0	0	0

66. Are the sick cattle taken care of before or after the healthy cattle? *(required)*

Select one option.

• Before

• After

• No specific order

67. Can a unit of sick cattle be completely separated from the other cattle in case of a disease outbreak? *(required)*

Select one option.

- \circ Always
- Sometimes
- \circ Never

68. Is a register with the animal health data being kept? (required)

Register: a book or computer programme in which detailed information on health status, past illnesses and the treatments of the cattle are stored in an accessible way so that it can be used in decision-making for the sick cattle.

Select one option.

 \circ Yes

 $\circ No$

69. Are there written protocols for vaccination, disease treatment and hygiene procedures? *(required)*

Select one option. • Yes

∘ No

70. What happens to the disease carriers that are detected? (required)

Disease carrier: an animal that is infected with a disease for a period longer than 3 weeks and may spread the infection to other animals. For dairy, consider for example IBRV, BVDV, Neospora caninum and Staphylococcus aureus infections. Delayed elimination: animal is kept for a certain amount of time after detection but will be eliminated as soon as a condition is fulfilled e.g. cow in lactation: lactation is finished.

Check any that apply.

- □ Elimination (always)
- □ Elimination (sometimes)
- □ Segregation (always)
- □ Segregation (sometimes)
- □ Nothing (always)
- □ Nothing (sometimes)
- Delayed elimination (always)
- Delayed elimination (sometimes)

71. Are there dedicated injection needles that are specific to each age group available? *(required)*

- ∘ Yes
- \circ No

G. Calving management

72. Are there maternity pens and/or a box for C-sections available on the farm? *(required)*

Select one option.

Yes, there are individual maternity pens and or C-section boxes
 Yes, there are shared maternity pens

• **No**

If "No" is chosen, go to question 77.

73. Is the maternity pen either ever used to house the sick cattle or is the maternity pen adjacent to the sick cattle? *(required)*

Select one option.

- \circ Always
- \circ Sometimes
- \circ Never

74. Are cattle in the maternity pen fully separated from the other animals? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 77.

75. Are ... in the maternity pen? (required)

	Always	Sometimes	Never
compartment-specific boots used	0	0	0
compartment-specific clothes used	0	0	0
hands washed/gloves used	0	0	0

76. Is the maternity pen ... before each new introduction of cattle? *(required)*

	Always	Sometimes	Never
cleaned	0	0	0
disinfected	0	0	0
dry	0	0	0

77. When helping with the calvings/abortions, are the hands and the used obstetric materials always cleaned and disinfected before and after each calving/abortion? *(required)*

Select one option.

- \circ They're cleaned and disinfected
- They're only cleaned

 $\circ No$

78. Are the cow's hindquarters (including the udder) always cleaned and disinfected before each calving? *(required)*

Select one option.

- They're cleaned and disinfected
- They're only cleaned

• **No**

79. When does the separation of the calf from the mother take place? *(required)*

Select one option.

- Within an hour of the calf's birth
- \circ No separation, the calf remains with the mother as a suckling calf
- \circ Other
- \circ As soon as the born calf is seen

80. If an abortion takes places, is the cow tested afterwards (i.e. abortion protocol)? *(required)*

Select one option.

- Always
- Sometimes

• Never

81. Where are the foetal membranes and tissues disposed of after a calving/abortion? *(required)*

- \circ They're left in the stable/in the area of calving or where the abortion took place
- They're eaten by the cow/dog/wild animals/other
- \circ They're put on the manure pile / slurry pit
- \circ Other

H. Calf management

82. How many <u>litres</u> of colostrum are administered to the calf within the first six hours of birth? *(required)*

If you don't know how much colostrum is given, fill in 0.

.....

83. Is the colostrum given from either the mother (provided that she has enough milk) or frozen colostrum from healthy cows from your own farm? *(required)*

Select one option. • Yes, pasteurised • Yes, unpasteurised • No

84. Is it checked if the colostrum quality is sufficient? (required)

Select one option.

∘ Yes

• **No**

85. Is there a frozen or artificial reserve of colostrum present, in case that either the mother does not provide enough milk or the colostrum is of insufficient quality? *(required)*

Select one option.

 \circ No

 \circ Yes, there's a frozen reserve originating from other cows on my farm

 \circ Yes, there's a frozen reserve originating from outside my farm

 \circ Yes, there's an artificial reserve

86. If the colostrum is not administered to the calf directly after milking, is the colostrum stored in the refrigerator? *(required)*

Select one option.

∘ Yes

 \circ No

87. Are the materials used for colostrum administration (e.g. tubes, bottles, etc.) cleaned and disinfected after each use? *(required)*

Select one option.

- \circ They're cleaned and disinfected
- They're only cleaned

 \circ No

88. Are the calves housed in individual calf boxes/hutches or separate areas? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 92.

89. Are the individual calf boxes/hutches/separate areas empty after each use? (*required*)

Select one option. • Yes • No If "No" is chosen, go to question 91.

90. Are the individual calf boxes/hutches/separate areas ... before each new introduction of calves? *(required)*

	Always	Sometimes	Never
cleaned	0	0	0
disinfected	0	0	0
dry	0	0	0

91. Is contact possible with calves in different hutches/boxes/separate areas? (required)

Select one option. • Yes • No

92. Are milk feeding buckets/teats reused between calves during the same feeding session? *(required)*

Select one option. • Yes • No

93. Are the calves ever fed with waste milk (i.e. milk that is not suitable for the milk tank)? *(required)*

- Always
- \circ Sometimes
- \circ Never

94. Are the feeding buckets cleaned after each feeding? (required)

Select one option. • Yes

∘ No

95. How large (<u>number of animals</u>) are the groups of calves that are regrouped from individual hutches/separate areas to group pens? (*required*)

.....

96. Is the group housing empty after each use? (required)

Select one option. • Yes • No If "No" is chosen, go to question 98.

97. Is the group housing (including the "babyboxes") ... before each new introduction of calves? *(required)*

	Always	Sometimes	Never
cleaned	0	0	0
disinfected	0	0	0
dry	0	0	0

I. Dairy management

98. Are the cows milked with a milking robot or manually? (required)

If both systems are used, choose the principal one.

Select one option.Milking robotManually

99. How many <u>times per year</u> is a static measurement of the milking equipment performed? *(required)*

.....

100. How many <u>cows</u> are milked on average? (required)

.....

101.1. How often <u>a day</u> do you milk? (required)

.....

101.2. What is the <u>average number of milkings per cow per day</u> on your farm? *(required)*

.....

102. How many <u>milking clusters</u> are there in the milking parlour? *(required)*

Including the milking cluster(s) that is (are) part of the milking robot(s).

.....

103. Do you use rubber or silicone teat cup liners? (required)

Select one option.Rubber teat cup linerSilicone teat cup liner

104. After how many months are the teat cup liners replaced? (required)

105. Are milking clusters being disinfected between cows (by yourself during milking or the robot)? *(required)*

Select one option.
Yes, after each cow
Yes, after cows with mastitis
Yes, after cows with a high somatic cell count (SCC)
No

If "No" is chosen, go to question 107.

106. How are the milking clusters between cows disinfected? (required)

Select one option.

- With hot water (more than 75°C (167°F))
- With steam
- \circ Other

107. Are the teats cleaned before milking? If yes, how? (required)

Select one option.

- Yes, prefoaming
- \circ Yes, dry cleaning with separate towels
- Yes, wet cleaning and dried afterwards with separate towels
- · Yes, wet cleaning, but not dried afterwards
- **No**

108. Is the foremilk examined during fore-stripping? (required)

Select one option.

∘ Yes

 $\circ No$

109. Are the teats disinfected after the teat cups are removed? (required)

Select one option.

- Yes, with a dip
- Yes, with a spray

• **No**

110. Are cows kept upright for a period after milking? (required)

Select one option.

- \circ Yes, for 30 minutes to an hour
- Yes, for longer than an hour

 \circ No

111. Are the cows milked in a specific order? (required)

Select one option.

- \circ Yes, cows with mastitis and/or a high SCC are milked last
- \circ Yes, cows with mastitis and/or a high SCC are milked first

• **No**

112. Are the udders of the lactating cows clipped? (required)

- \circ Yes, twice or more per year
- \circ Yes, once per year
- \circ No

113. Are the tails of the lactating cows clipped? (required)

Select one option. Yes, twice or more per year
Yes, once per year
No

114. Is there a regular (i.e. minimum once per year) bacterial examination of the udder of all cows? *(required)*

Select one option.

 \circ Yes

 $\circ \mathrm{No}$

J. Adult cattle management

115.1. How often <u>a year</u> is the adult stable cleaned? (required)

.....

115.2. How often a year is the adult stable disinfected? (required)

.....

116. In which of the following groups are the cows on your farm divided? *(required)*

Check any that apply.

□ Dry cows

 $\hfill\square$ Fresh cows

□ First lactation cows

- □ High and low lactation cows (or more groups)
- \square N/A, I have only one group

117. Do the cows have to regularly pass through a hoof disinfection footbath? *(required)*

- \circ Yes
- \circ No

K. Working organisation and equipment

118. Are the cattle grouped per age category in the stable? (required)

Cattle should be separated in at least the following groups; calves on milk, weaned calves, heifers and lactating/dry cows.

Select one option.

Yes
No
If "No" is chosen, go to question 123.

119. Has a full separation between age groups been established? *(required)*

Select one option. • Yes • No If "No" is chosen, go to question 121.

120. Are ... between age groups? (required)

	Always	Sometimes	Never
compartment-specific boots changed	0	0	0
compartment-specific clothes changed	0	0	0
hands washed/gloves changed	0	0	0

121. Is farm work performed in a specific order? (required)

Select one option.

- Yes, from youngest to oldest
- \circ Yes, from oldest to youngest

No specific order

122. Has there clearly recognisable, separate material been foreseen for each age group? (required)

Select one option. • Yes

• Yes, but not recognisable

∘ No

123. Is there any material being shared with other farms that enters the stables and/or has contact with your cattle? *(required)*

Select one option.

- ∘ Yes
- 0 **No**

If "No" is chosen, go to the end of this survey.

124. What measures do you take before this shared material enters your stable or comes into contact with your cattle? *(required)*

- It's cleaned and disinfected
- It's only cleaned
- Nothing