FACULTY OF VETERINARY MEDICINE
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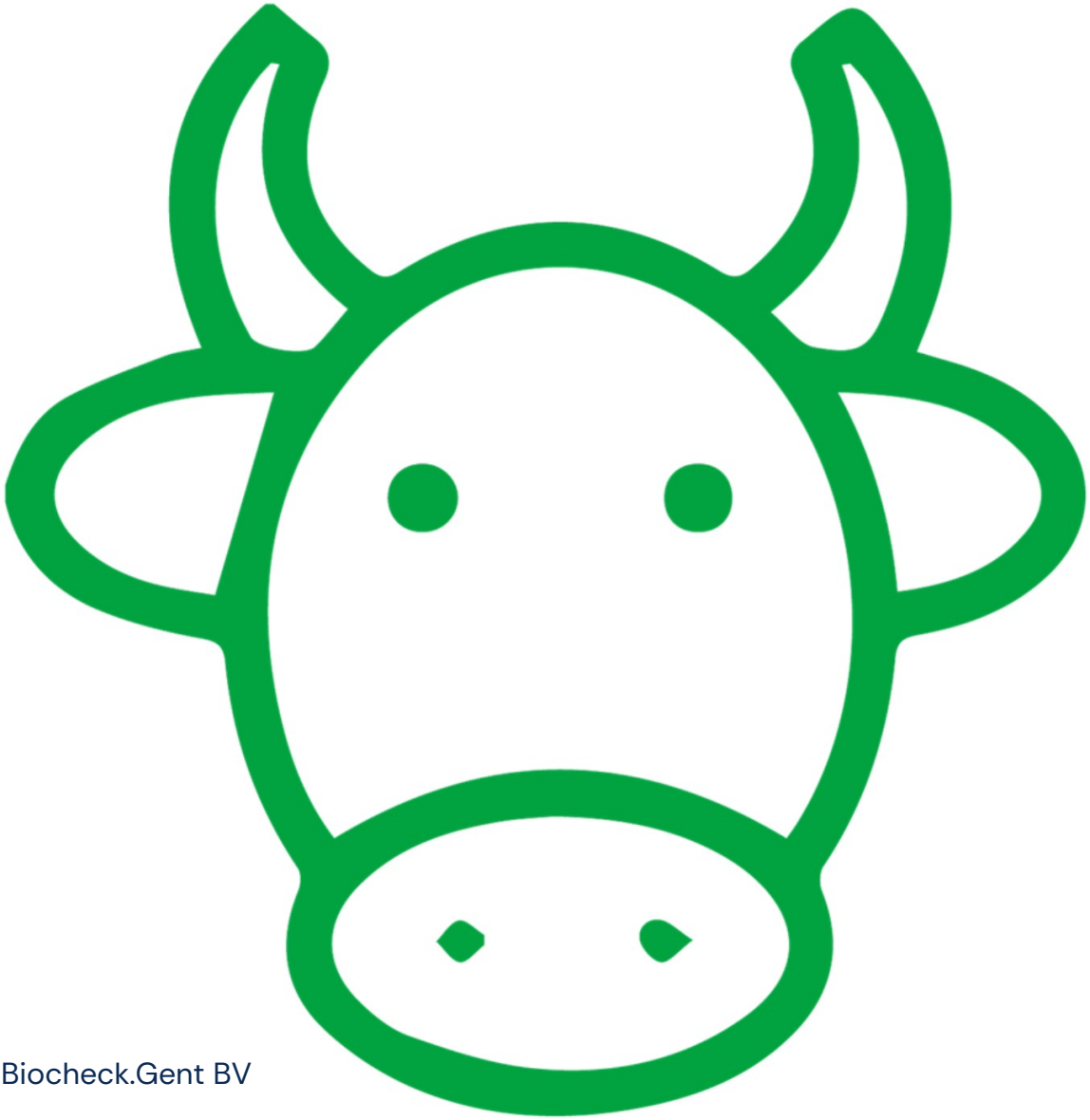
BIOCHECK.UGENT CATTLE

Beef cattle



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~. Farm characteristics

I. How many years 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)
☐ The employee(s)
☐ The contractor(s)

III. How many bulls are there on the farm?

.....

IV. How many adult cows (i.e. older than two years) are there on the farm?

.....

V. How many heifers are there on the farm?

.....

VI. How many calves aged between two and eight months are there on the farm?

.....

VII. How many calves younger than two months 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 13.

2.1. How often a year 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 a year 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 a year 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 a year 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.

Select one option.
- ○ Yes
- ○ No, I buy from the salesman or on the market
- ○ No, I buy from multiple sources

4. Before the cattle arrive 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
- ○ 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
- ○ Sometimes
- ○ Never

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

Select one option.
- ○ Always
- ○ Sometimes
- ○ 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
- ○ Sometimes
- ○ 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
○ Never
If "Never", go to question 13.

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

.....

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

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

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

Select one option.
○ Always
○ Sometimes
○ Never
If "Never", go to question 13.

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

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

	Always	Sometimes	Never
cleaned	○	○	○
disinfected	○	○	○
dry	○	○	○

13. 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 15.

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

Select one option.
○ Always
○ Sometimes
○ Never

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

Select one option.
○ Yes, with artificial insemination/embryo transplantation
○ Yes, with natural service
○ Yes, with both artificial insemination/embryo transplantation and natural service
○ No
If "Yes, artificial insemination/ embryo transplantation", go to question 17.
If "Yes, natural service"; go to question 16, but skip question 17.
If "No", go to question 18.

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

Select one option.
○ Always
○ Sometimes
○ Never

17. 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)*

Select one option.

- ○ Always
- ○ Sometimes
- ○ Never

B. Transport and carcass removal

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

Select one option.
O Always
O Sometimes
O Never

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

Select one option.
O Yes
O No

20. 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.
O Always
O Sometimes
O Never

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

Select one option.
O Always
O Sometimes
O Never
If "Sometimes" or "Never", go to question 23.

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

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

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

Select one option.
O Yes
O No
If "No" is chosen, go to question 25.

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

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

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

Select one option.
O Yes
O No

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

Select one option.
O Yes
O No

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

Select one option.
O Always
O Sometimes
O Never

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

Select one option.
O Always
O Sometimes
O Never

C. Feed and water

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

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

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

Select one option.
O Always
O Sometimes
O Never

31. 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.
O Yes
O No, but I'm using the water supply
O No

32. 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.
O Yes
O No

D. Visitors and farmworkers

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

Select one option.
○ Always
○ Sometimes
○ Never

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

Select one option.
○ Yes
○ No

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

Frequently: once a week or more often.

Select one option.
○ Yes
○ No
○ I don't know

36. Upon entering the farm, does the farm personnel … *(required)*

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

37. Upon entering the farm, does the veterinarian… *(required)*

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

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 40.

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

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

40. Does the cattle salesman 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 cattle salesman ... *(required)*

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

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 44.

43. Upon entering the farm, does the hoof trimmer … *(required)*

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

44. 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 46.

45. 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?	○	○	○
use farm-specific clothes?	○	○	○
wash their hands/use gloves before entering?	○	○	○

E. Vermin control and other animals

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

Control programme: a regular protocol containing the control measures.

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 51.

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 54.

53. Can these other commercially exploited cattle come into contact with the beef cattle? *(required)*

Select one option.
○ Yes
○ No

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

Check any that apply.
☐ Sheep
☐ Goats
☐ Pigs
☐ Horses
☐ Poultry (more than 10 birds)
☐ None

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

Select one option.
○ Dogs (and cats)
○ Only cats
○ None

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

Select one option.
○ Yes
○ No
○ I don't know

F. Health management

57. 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.
O Always
O Sometimes
O Never
If "Never" is chosen, go to question 65.

58. 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.
O Yes
O No
If "No" is chosen, go to question 60.

59. Is this specific equipment cleaned and disinfected before a new animal enters? *(required)*

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

60. Are the sick cattle in the hospital pen fully separated from the healthy cattle? *(required)*

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

Select one option.
O Yes
O No
If "No" is chosen, go to question 62.

61. Are … before entering the hospital pen? *(required)*

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

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

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

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

	Always	Sometimes	Never
cleaned	○	○	○
disinfected	○	○	○
dry	○	○	○

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

Select one option.
○ Before
○ After
○ No specific order

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

Select one option.
○ Always
○ Sometimes
○ Never

66. 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.
○ Yes
○ No

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

Select one option.
○ Yes
○ No

68. 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 beef, consider for example IBRV, BVDV, Neospora caninum 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)

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

Select one option.
○ Yes
○ No

G. Calving management

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

Select one option.
O Yes, there are individual maternity pens and or C-section boxes
O Yes, there are shared maternity pens
O No
If "No" is chosen, go to question 75.

71. 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.
O Always
O Sometimes
O Never

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

Select one option.
O Yes
O No
If "No" is chosen, go to question 75.

73. Are ... in the maternity pen? *(required)*

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

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

	Always	Sometimes	Never
cleaned	O	O	O
disinfected	O	O	O
dry	O	O	O

75. 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.
O They're cleaned and disinfected
O They're only cleaned
O No

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

Select one option.
O They're cleaned and disinfected
O They're only cleaned
O No

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

Select one option.
O Within an hour of the calf's birth
O No separation, the calf remains with the mother as a suckling calf
O Other
O As soon as the born calf is seen

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

Select one option.
O Always
O Sometimes
O Never

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

Select one option.
O They're left in the stable/in the area of calving or where the abortion took place
O They're eaten by the cow/dog/wild animal/other
O They're put on the manure pile / slurry pit
O Other

H. Calf management

80. How many litres of colostrum are administered to the calf within the first six hours of birth? *(required)*

If you do not know how much, enter the number 0.

.....

81. 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.
O Yes, pasteurised
O Yes, unpasteurised
O No

82. Is the colostrum checked for sufficient quality? *(required)*

Select one option.
O Yes
O No

83. 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.
O No
O Yes, there's a frozen reserve originating from other cows on my farm
O Yes, there's a frozen reserve originating from outside my farm
O Yes, there's an artificial reserve

84. Is the colostrum stored in a fridge between milking the cow and giving it to the calf? *(required)*

Select one option.
O Yes
O No

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

Select one option.
○ They're cleaned and disinfected
○ They're only cleaned
○ No

86. 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 90.

87. 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 89.

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

	Always	Sometimes	Never
cleaned	○	○	○
disinfected	○	○	○
dry	○	○	○

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Yes
○ No

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

Select one option.
○ Always
○ Sometimes
○ Never

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

Select one option.
○ Yes
○ No

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

.....

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 96.

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

	Always	Sometimes	Never
cleaned	○	○	○
disinfected	○	○	○
dry	○	○	○

I. Adult cattle management

96.1. How often a year is the adult stable cleaned? *(required)*

.....

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

.....

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

Select one option.
○ Yes
○ No

J. Working organisation and equipment

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 103.

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

Select one option.
○ Yes
○ No
If "No" is chosen, go to question 101.

100. Are ... between age groups? *(required)*

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

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

Select one option.
○ Yes, from youngest to oldest
○ Yes, from oldest to youngest
○ No specific order

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

Select one option.
○ Yes
○ Yes, but not recognisable
○ No

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

Select one option.
O Yes
O No
If "No" is chosen, go to end of questionnaire.

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

Select one option.
O It's cleaned and disinfected
O It's only cleaned
O Nothing