Detection & management of residues of antimicrobials in pigs delivered to abattoir (FBO)

Introduction

The objective is to map routine monitoring activities on antimicrobial residues in pigs. Moreover, focus is on a case where a pig producer has provided food chain information indicating compliance regarding withdrawal periods, but later discovers that a pig was delivered before the end of this period.

The questionnaire has been developed by a RIBMINS project group. Please see https://ribmins.com/ (https://ribmins.com/) for more information. The target audience is the staff of the competent authorities (CA) and food business operator (FBO).

There are two versions of the questionnaire, one for the FBO, which is the one you are in. There is also one for the CA, which you can access through the following links:
https://forms.office.com/r/cRQFi5ZRmV
(https://forms.office.com/r/cRQFi5ZRmV)

It will take around 25 minutes to fill it in. All questions relate to pigs; finisher pigs, sows and boars.

Unfortunately, it is not possible to fill in the questionnaire halv-way and then continue another day. Therefore, respondents may wish to look at the questions first. A pdf of the questionnaires can be found on the following link: https://ribmins.com/survey-on-residues-of-antimicrobials-in-pigs/ (https://ribmins.com/survey-on-residues-of-antimicrobials-in-pigs/)

Further, if not completed at once, one may print a pdf with the preliminary answers for later repeating the replies: Please use the ". . ." (print formular) in the upper right corner.

By filling in the questionnaire, the respondents give their consent in letting the project group analyse the data, which will be anonymised. The results will be published in a peer-reviewed journal.

For some questions, more than one box may be ticked, when needed. It is listed, where this is possible

Abbreviations
MRL = maximum residue limit
OV ('official veterinarian') = means a veterinarian appointed by the CA, either as staff or otherwise, and appropriately qualified to perform official controls and other official activities in accordance with the food or feed regulation
FBO = means the natural or legal persons responsible for ensuring that the requirements of food or feed law are met within the food or feed business under their control
An activity may be called an own check in one country and a quality assurance programme in another country

Thank you for your participation

If you have any queries, please contact Chief Scientist/Adjunct Professor Lis Alban on lia@lf.dk (mailto:lia@lf.dk).

1. Affiliation

- ◯ Large abattoir (large for your country)
- ◯ Medium-sized abattoir (medium for your country)
- ◯ Small abattoir (small for your country)
- ◯ Industry association representing several abattoirs
- ◯ Other

2. If your answer was “Other”, then please describe

3. If you represent an abattoir company, what is the number of pigs slaughtered per week? - if pigs are only slaughtered seasonally, then please indicate the weekly number of pigs slaughtered during the season

4. If you represent an abattoir company, on which market is the meat placed? (more than one answer is possible)

- [ ] Local market
- [ ] National market
- [ ] Intra-communitary market
- [ ] Export market

5. Country in which your abattoir company is located

6. Region (only for large countries, where the programmes in place differ by region)

7. Is there a quality assurance programme related to residues of antimicrobials run by your pig abattoir (if one plant only) or abattoir company?

- ◯ No
- ◯ Yes, and run by some of the plants in the abattoir company
- ◯ Yes, and run by all the plants of the abattoir company (or run at the single abattoir you are referring to)
- ◯ Yes, and divided into 1) sows/boars and 2) finishing pigs
- ◯ Yes, but divided differently
- ◯ Different systems are in place, depending on the customer requirements
- ◯ I do not know

8. If your answer was “yes, but divided differently”, then please explain

9. Please sort the five objectives below for the quality assurance programme in force at your abattoir by **giving 1 to the most important** objective and **5 to the least important**

	1	2	3	4	5
Show compliance with EU legislation	○	○	○	○	○
Detect positives and manage these	○	○	○	○	○
Assess the prevalence of residues in pig meat	○	○	○	○	○
Show the pig producers that monitoring is taking place to increase compliance	○	○	○	○	○
Other objectives	○	○	○	○	○

10. Please explain what “other objectives” cover

11. Is sampling risk-based in any parts of the quality assurance programme?

- ◯ All parts involve random sampling
- ◯ Al parts involve risk-based sampling
- ◯ Some parts involve risk-based sampling whereas others are random
- ◯ I do not know

12. If your answer was that "some (or all) parts involve risk-based sampling", please explain which risk factors the sampling is based upon

13. When a sample is taken from a carcass as part of the programme, how is the carcass handled? (more than one answer is possible)

- ☐ The carcass is held, until a test result below MRL becomes available
- ☐ The carcass is not held
- ☐ Other handling
- ☐ I do not know

14. If your answer was “other handling”, then please explain

15. If the carcass is held until a result below MRL becomes available (more than one answer is possible)

- [ ] This is to avoid corrective measures imposed by the competent authorities in case a sample is test-positive
- [ ] This is due to export requirements
- [ ] Other reasons
- [ ] Not relevant, because tested carcasses are not held
- [ ] I do not know

16. If your answer was “other reasons”, then please describe

17. When does the abattoir require actions to be taken on-farm in relation to test results obtained in the quality assurance programme?

- ◯ a) Actions will be taken on-farm if results show concentrations above MRL
- ◯ b) Actions will be taken on-farm if results show presence of residues
- ◯ c) Actions will be taken on-farm if results show presence of residues below the MRL
- ◯ No actions are taken
- ◯ I do not know

18. If your answer was a, b or c, please write which and specify the actions

19. Which preventive actions are required by the abattoir regarding the farms to ensure that the withdrawal period is complied with? (more than one answer is possible)

- [ ] Pig producers are obliged to register all treatments with veterinary medicine
- [ ] Pig producers are obliged to physically mark all animals that have been treated with veterinary medicine
- [ ] Other actions in place, such as moving treated pigs to a separate pen or similar initiatives
- [ ] I do not know

20. If your answer was “other actions in place”, then please specify

21. Which testing matrix is used in the quality assurance programme? (more than one answer is possible)

- [ ] Kidney or kidney fluid
- [ ] Meat
- [ ] Serum
- [ ] Other
- [ ] I do not know

22. If your answer was “other”, then please specify

23. Which kind of laboratory methods is used for **screening** in the quality assurance programme?

- ◯ Biological methods (agar plates)
- ◯ Chemical methods (such as HPLC)
- ◯ Other kinds of methods
- ◯ I do not know

24. If your answer was “other kinds of methods”, then please describe

25. Which kind of laboratory methods is used for **verification** in the programme?

- ◯ Biological methods (agar plates)
- ◯ Chemical methods (such as HPLC)
- ◯ Other kinds of methods
- ◯ I do not know

26. If your answer was “other kinds of methods”, then please describe

27. Does the quality assurance programme have increased focus on farms on which residues have been detected earlier on and after that case was closed? - e.g. within the last 6 months

- ◯ Yes
- ◯ No
- ◯ Not relevant, as residues >MRL are an infrequent finding (<10 times per year per pig abattoir)
- ◯ Has never happened
- ◯ I do not know

28. Do you use ante mortem observations to identify clinical suspects for pigs arriving on the abattoir? (and e.g., arrest the carcass until a test result is confirmed)

- ◯ Yes
- ◯ No
- ◯ I do not know

29. If your answer was "yes", what do you base the suspicion on?

30. Will information from the pig producer regarding possible presence of an injection needle in a pig delivered for slaughter result in the pig being considered as a suspect regarding residues?

- ◯ Yes
- ◯ In principle yes, but it hardly ever occurs in practice
- ◯ No
- ◯ I do not know

31. Are emergency slaughter animals considered as suspect animals?

- ◯ Yes
- ◯ Only in case of suspect findings or relevant information in FCI
- ◯ No
- ◯ The abattoir is not slaughtering such animals - they are euthanised on the farm
- ◯ I do not know

32. How do you report the data from the quality assurance programme? (more than one answer is possible)

- [ ] Annual report in national language
- [ ] Reported annually to the competent authority
- [ ] Other ways of reporting
- [ ] Data are not reported
- [ ] I do not know

33. If your answer was “other ways of reporting”, then please describe

34. Surveillance evaluation and performance monitoring - Are the pig results used to update the programme?

- ◯ Yes
- ◯ No
- ◯ I do not know

35. If your answer was yes, please give examples

36. How else are the results disseminated, to whom and for which purpose?

37. Which kind of data regarding use of antimicrobials must be provided as food chain information (FCI) for pigs? (more than one answer is possible)

- [ ] The pig producer fills in a statement regarding compliance with withdrawal period
- [ ] Data describing use of antimicrobials representing the batch of pigs or the herd
- [ ] Other kind of information
- [ ] I do not know

38. If your answer was “data describing use of antimicrobials”, please explain how this is used in practice

39. If your answer was “other kind if information” then please describe

40. Are FCI used by the abattoir company’s quality assurance programme?

- ◯ Yes, it is used
- ◯ No, it is not used
- ◯ I do not know

41. If your answer was "yes, they are used" please describe which FCI is used and how it is used

42. Do you find that the FCI used in relation to residues is useful?

- ◯ Yes
- ◯ No
- ◯ I do not know

43. If your answer was "yes" or “no”, please write which and explain why

44. Do you have any suggestions for improvements of the FCI regarding residue testing?

- ◯ Yes
- ◯ No
- ◯ I do not know

45. If your answer was "yes" please explain why

46. How often do you think meat produced in your country and placed on the market can be found to have residues of antimicrobials in it? – here evaluated as the percentage of carcasses with residues above MRL

- ◯ Very often (>5%)
- ◯ Often (>1-5%)
- ◯ Regularly (>0.1-1%)
- ◯ Rarely (>0.01-0.1%)
- ◯ Almost never (≤0.01%)
- ◯ I do not know

47. How would you classify the relevance of residues of antimicrobials in meat in general as a food safety hazard from a scientific / HACCP point of view?

- ◯ Very relevant, they pose a significant risk for human health
- ◯ Moderate, they pose a certain risk for human health
- ◯ Low, they pose a negligible risk for human health
- ◯ Irrelevant, they don’t pose any relevant risk for human health
- ◯ I do not know

48. How do you think that **consumers** in your country perceive **the food safety risk** related to residues of antimicrobials in meat?

- ◯ Very high
- ◯ Moderate
- ◯ Low
- ◯ Irrelevant
- ◯ I do not know

49. How would you classify the way **export markets perceive the risk** of residues of antimicrobials as a food safety hazard?

- ◯ Very high
- ◯ Moderate
- ◯ Low
- ◯ Irrelevant
- ◯ I do not know

50. **Questions 50-61 are dealing with a special case: A pig producer has provided FCI indicating compliance with the withdrawal periods. However, the pig producer later informs the abattoir that one or more pigs have by mistake been sent before the end of the withdrawal period**

Is there a procedure in place to handle this situation?

- ◯ The abattoir has no procedure for such a situation
- ◯ In this case the official vet is called, and he/she will manage the case
- ◯ A quality assurance procedure is in place, which describes how the case should be managed
- ◯ The case is not considered relevant
- ◯ I do not know

51. If your answer was "the case is not considered relevant", then please explain why

52. If the individual animal has not yet been slaughtered and can be identified easily

- ◯ The abattoir informs the official vet and makes their own decision to reject the animal from slaughter
- ◯ The abattoir informs the official vet, who rejects the animal from slaughter
- ◯ The abattoir informs the official vet who decides that the animal should be detained and housed until the expiry of the withdrawal period
- ◯ The abattoir informs the official vet who decides that the animal should be detained from slaughter, housed and tested for residues of veterinary medicinal products (testing to document absence)
- ◯ The abattoir’s quality assurance department undertakes a risk assessment, which is used for decision making regarding fitness for consumption and the official vet is informed
- ◯ The case is not considered relevant
- ◯ I do not know

53. If your answer was "the case is not considered relevant", then please explain why

54. The animal has not yet been slaughtered. However, it cannot be identified individually as it is part of a batch (more than one answer is possible)

- [ ] The abattoir reports the case to the official veterinarian, who subsequently decides what to do
- [ ] The official vet's decision is based upon a risk assessment, describing the case
- [ ] The official vet's final decision regarding meat compliance is based upon a subsequent test for presence of residues of the batch of animals (free testing)
- [ ] The abattoir asks the official vet for permission to house the batch of animals until the expiry of the withdrawal period
- [ ] The case is not considered relevant
- [ ] I do not know

55. If your answer was "the case is not considered relevant", then please explain why

56. The animal has been slaughtered, and the carcass cut, deboned and packed. Hereby, the traceability has been reduced to a lot, but the products have not left the abattoir (more than one answer is possible)

- [ ] The case is reported to the official vet who decides how to handle the specific case
- [ ] The official vet orders the abattoir to trace the carcass and all parts thereof including the edible and the animal by-products to destroy the fresh meat and downgrade the by-products to category 2
- [ ] The abattoir's decision regarding destruction or release is based upon a risk assessment
- [ ] The abattoir's decision regarding destruction or release is based upon test results regarding the permitted residues level
- [ ] The official vet's decision regarding destruction or release is based upon a risk assessment
- [ ] All parts belonging to the lot will be destroyed
- [ ] The case is not considered relevant
- [ ] I do not know

57. If your answer was "the case is not considered relevant", then please explain why

58. The traceability has been reduced to a lot, and edible parts have left the abattoir and been placed on the market (more than one answer is possible)

- [ ] The edible parts are always recalled from the market
- [ ] The abattoir never recalls parts that have been placed on the market
- [ ] The decision by the abattoir of recalling is depending the outcome of a risk assessment
- [ ] The demand by the official vet of recalling is depending the outcome of a risk assessment
- [ ] The case is not considered relevant
- [ ] I do not know

59. If your answer was "the case is not considered relevant", then please explain why

60. Specific handling of animal by-products belonging to a lot, including blood, that are already placed on the market (more than one answer is possible)

- [ ] The FBO on the receiving plant bases a decision regarding whether to downgrade from category 3 to category 2 upon a risk assessment
- [ ] The OV on the receiving plant bases a decision regarding whether to downgrade from category 3 to category 2 upon a risk assessment
- [ ] A risk assessment is never performed due to limitations in the EU Animal By-product Regulation 1069/2009 - The animal by-products are automatically being downgraded from category 3 to category 2
- [ ] The case is not considered relevant
- [ ] I do not know

61. If your answer was "the case is not considered relevant", then please explain why

62. Within the definition of “placing on the market” in Council Regulation 2002/178[1] please indicate what you think applies according to the current legislation (more than one answer is possible)

[1] "Placing on the market" means the holding of food or feed for the purpose of sale, including offering for sale or any other form of transfer, whether free of charge or not, and the sale, distribution, and other forms of transfer

- [ ] When the health mark has been applied on the carcass.
- [ ] When the identification mark has been applied on the packed product.
- [ ] When the product has left the abattoir, but is still under responsibility of the business operator, for example when stored in a cold store separated from the abattoir
- [ ] When the product has left the abattoir and are not under responsibility of the business operator, followed by a business document or a certificate
- [ ] Another approach is used
- [ ] I do not know

63. If your answer was "another approach is used", then please explain - and also feel free to explain how you think that the system should be set up and why

64. Other requirements in place on top of the national legislation (more than one answer is possible)

- [ ] Additional restrictions on use of tetracyclines due to Russian requirements/standards?
- [ ] International Featured Standards (IFS)
- [ ] British Retail Consortium (BRC)
- [ ] Another private standard

65. If your answer was “Another private standard” please indicate which

66. General or specific comments to the questions above

67. By ticking the box, you give consent to the use of the above information in the way described on the first page (box)

- ◯ I agree
