



**Minutes of the Third VRC Open Meeting  
Wednesday 18 October 2006  
Fishmongers' Hall, London**

**Members present:**

|                              |       |
|------------------------------|-------|
| Mrs Dorothy Craig (Chairman) | DC    |
| Mr John Ambrose              | JA    |
| Mrs Sarah Buckley            | SB    |
| Mrs Susan Knox               | SK    |
| Mr Stephen Lister            | SL    |
| Dr W John McCaughey          | WJMcC |
| Dr Shirley Price             | SP    |
| Mr Stephen Spice             | SS    |

**Advisors:**

|                                   |     |                                     |
|-----------------------------------|-----|-------------------------------------|
| Mr Eric Crutcher<br>(Secretariat) | EC  | Veterinary Medicines Directorate    |
| Mr David Webb                     | DW  | " " (Secretariat)                   |
| Mrs Maggie Green                  | MG  | " "                                 |
| Mr Andrew Frost                   | AF  | State Veterinary Service            |
| Dr Glenn Kennedy                  | DGK | Agri-Food and Biosciences Institute |
| Mr John Points                    | JP  | LGC Limited (not for item 5.2)      |
| Ms Gillian Asbury                 | GA  | Food Standards Agency               |
| Dr Ana Miljkovic Brake            | ABM | Food Standards Agency               |

**Action Points**

- 3.5 To keep the Committee informed on the progress of the FSA's nicarbazin initiative.

**Action: FSA**

**1. Introduction and plan of the day from the Chairman**

- 1.1 **DC** welcomed all of the attendees to the meeting. She stressed the Committee's commitment to openness and transparency and drew their attention to the Annual report and website.

**2. Apologies for Absence:**

- 2.1 Paul Brantom, Neil Cutler, Keith Lawrence, Brian Vernon

**3 Statutory Surveillance Scheme  
Results for 2006 to date****VRC/06/46**

- 3.1 **MG** explained that these were new results since the Committee was updated on 14 June. The LGC has received 24,307 assayable samples from a target of 31,000 for the year, which should be achieved.
- 3.2 The lasalocid positives in eggs had been taken from the same farm and should be regarded as equivalent to one sample as multiple sampling should not occur. The Egg Marketing Inspectorate will be reminded of the need to avoid multiple sampling biasing the results. **MG** also reported that there had been no positives for fish and while no positives were recorded in the paper for milk, one sample had since been reported positive for penicillin G.
- 3.3 **DC** asked for comments and drew attention to positives for cadmium that were reported. It had been suggested that this could be a local phenomenon. With the move to source more food locally, she was concerned that hot spots of contamination could pose potential risk. **GA** said the FSA were aware of such environmental pollutants and a risk assessment was conducted where appropriate.
- 3.4 **DC** referred to some nicarbazin results on page 20 of the paper and stressed the need for an education process. The VMD's Animal Medicines Inspectorate has been asked to investigate the cause because of their expertise in feed management. They were also to investigate procedures at mills supplying feed.
- 3.5 **GA** reported on the progress of the FSA's nicarbazin initiative, which included the VMD and SVS. This was going to be launched in the New Year and she agreed to keep the VRC informed.
- Action: FSA**
- 3.6 **DGK** reported there were few positives for the NSS in Northern Ireland. One positive for phenylbutazone in a cow had been detected and investigation was underway.
- 3.7 **DGK** then turned to nortestosterone in cattle. Northern Ireland had found 74 male cattle positive for nortestosterone. Sixty four of these were detected following emergency slaughter of injured animals on farms. Ten had been casualty animals removed at ante-mortem inspection at abattoirs. Normally this steroid is not found in male animals.
- 3.8 A detailed investigation including an independent report by Professor Wall of University College, Dublin, had concluded that this phenomenon was naturally occurring and not the result of illegal

administration. Samples from 700 live cattle from farms with positives for nortestosterone had tested negative, and the investigation, by Professor Wall, found no evidence of tampering with the samples. It was thought that the stress of the injury had led to the production of nortestosterone. This report was to be published later that day.

**4. The Non-Statutory Surveillance Scheme: VRC/06/47**

- 4.1 **MG** indicated these were new results since June, up to 21 September. Further residues of nitrofurans metabolites in crustaceans and farmed fish had been discovered and one honey sample had tested positive for 1-4 dichlorobenzene, a treatment for wax moth.
- 4.2 The Committee noted that there continued to be residues of unauthorised substances. This issue was reported to the European Commission who could take action over imports to the European Union and had done so in the past. The Committee heard that the FSA had contacted the Indian authorities and offered training from CSL on analytical methods.
- 4.3 It was stressed that the primary responsibility for imported foods lay with the country of origin. Each country had to be approved by the EU. The EU's Food and Veterinary Office inspected controls over the use of veterinary medicines to check that equivalent testing to that in the EU was being carried out.

**5. EU Reflections exercise: VRC/06/47a**

- 5.1 The European Commission issued a discussion paper in late 2003 and invited comments. It noted that while existing legislation on pharmacologically active substances used in veterinary medicinal products greatly increased consumer protection; it has also significantly contributed to the decreased availability of medicines for use in food producing animals in the EU. The legislation has also led to various problems related to the implementation and enforcement of legislation on the control of residues in foods of animal origin, which has impacted on the function of the Single Market and international trade.
- 5.2 The UK's response to the discussion paper was attached to VRC/04/23 and discussed at the June 2004 meeting. The Commission issued a summary of the comments received, with links to the individual comments, which was attached to VRC/04/37.
- 5.3 The Commission's intention is also to revise the legislative instruments Council Regulation 2377/90/EEC (which sets MRLs) and the Council Directives 96/22/EC "the hormones ban" and Council Directive 96/23/EC which sets out surveillance requirements. These proposals

will, therefore, result in important and potentially wide-ranging changes to EU legislation.

- 5.4 After a quiet period, progress was now being made. A draft non-paper indicating how Directive 96/23/EC may be revised was discussed by all Member States on EU Residues Working Group earlier this month. The intention is that any new surveillance programme would be risk-based and less rigid than the current regime. The move to a risk-based approach was welcomed by the VRC and FSA. The Chairman was pleased to note that its Matrix Ranking System may play a part in the approach to assessing risk in producing the EU surveillance programmes.
- 5.5 **SP** gave an explanation of the work of the Matrix Ranking Subgroup in reviewing its system of prioritisation.

## **6. Question and answer session for questions submitted in advance**

6.1 See Annex I

7. How the National Surveillance Scheme Works: a case study on malachite green VRC/05/48

7.1 The meeting heard presentations on:

- The toxicology of malachite green (Dr Shirley Price, VRC);
- An overview of the National Surveillance Scheme (Mrs Susan Knox, VRC);
- Sampling and follow-up procedures for fish farms where malachite green use had been established (Kevin Denham, Cefas);
- The analysis of samples received by the LGC Ltd (John Points, LGC Ltd); and
- The legal aspects of enforcing the scheme (Eric Crutcher, VMD).

7.2 It was asked if the VMD 'bought back' any medicines that were withdrawn. **JF** confirmed that this was not the case. However, to try and ensure that malachite green was no longer used, Cefas had run a free collection and disposal service.

## **8. Should the VRC publish its plans for surveillance of imports in the same way as the Pesticides Residues Committee VRC/06/49**

8.1 The Veterinary Residues Committee has a policy of not publishing residues surveillance plans in advance of their being put into effect. This was agreed by the Committee to reduce the risk of some producers changing to substances that were not included the plan. In

contrast, the Pesticides Residues Committee (PRC) actively seeks stakeholder comments on the commodities to be sampled. The analytes that will be sought are usually given only as general statements, such as 'multi-residue analysis, dithiocarbamates and inorganic bromide'.

- 8.2 **DC** asked Committee members and other attendees their views on the possible benefits and concerns about the two approaches. **SS** suggested that disclosure would allow industry to focus its own sampling on areas of concern. He felt it would also encourage sharing of information and discussion. **SK** questioned whether if the VRC was more open, would industry respond? **SS** suggested that it could help build bridges with industry and encourage information sharing. **DC** said the Committee had received more industry surveillance information before it started recommending brand name surveys.
- 8.3 **Peter Martin** (Honey International Packers Association) said in third countries, producers could go to their local pharmacy who are happy to sell any products to them. If they know streptomycin is banned, they will simply switch to sulphonamides. He also suggested that if the industry became aware of a problem, for example, of fluoroquinolones in honey, the last thing it would do is to tell the VRC.
- 8.4 **Sue Payne**, (Foodaware), could see the VRC might be more open at an early stage of the plan and involve producers. She felt this would be worth trying.
- 8.5 **JA's** view was that people who used banned substances would continue to use them – whether we publish our plans or not. Also by the time the VRC publishes our plans, many consignments will have been exported from the country of origin and producers might be hoping their produce would not be tested. **JA** would like to share information with industry but thought brand-naming would be a barrier to this. He said that the VRC had operated brand-naming now might be a time to look at a different approach and he would support publishing plans.
- 8.6 **WJMcC** reported that he had originally been against publishing plans but that the Committee did have the option of making operational decisions during the year. **DC** clarified that the Committee could retain the possibility of changing the plan during the year. **WJMcC** added that the Pesticides Residues Committee dealt with different substances that could be relatively long lasting and so difficult to mask at short notice. However, the VRC was looking at veterinary medicines that tend to be less persistent making it easier to change substance if it was included in the programme.
- 8.7 **Peter Martin** suggested that the Committee should avoid analyses that the industry was already undertaking; for example, for organophosphorus and organochlorine compounds where there are

multi-residue methods available. VMPs often require individual analyses which may be more expensive and the VRC could concentrate on those substances the industry can't afford to look for.

## **9. Question and answer session for questions submitted at lunchtime**

- 9.1 Two questions were submitted on the morning session, these are at Annex II:

## **10. Summary and close**

- 10.1 DC thanked all of the attendees for their positive contributions to the meeting and also and the presenters for their clear talks.

## **Annex I Questions and Answers from the Morning Session<sup>1</sup>**

There was not time to answer all of the questions in the morning session. Some of these were included in the afternoon session. But, where questions were neither answered in the morning, nor afternoon session, the Committee have included answers here.

- 1. What progress on proposal for VMD to develop company brand lists in relation to illegal substances in imports?**
  - 2. How reliable is it for bodies such as NGOs to build and publish their own "sustainable" company lists (ref reactions in seafood press to proposals by Marine Conservation Society proposals to draw up such a list)?**
  - 3. What measures need to be taken to ensure expert independence and a level playing field (particularly for small companies or producer companies with lower revenues in developing countries) where certification (good management *et al.* criteria) is by payment to consultants, the two parties sometimes having been brought together by intermediaries?**
- A. The VRC recommended that the VMD carry out a brand-name survey of warm-water crustaceans for illegal substances and the samples were currently being collected. Samples were being taken at Border Inspection Posts and from shops and this year the VRC was pleased to see that wholesalers had agreed to co-operate with the survey to get the best coverage of this commodity.

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<sup>1</sup> There was not time to answer all of the questions submitted in the morning session and the Committee returned to these in the afternoon question session. Answers are also included here for some questions that were not considered at the meeting because of time constraints.

Dr O'Neill [one attendee] quoted the example of brown rice that 10 years ago had been promoted as 'good' product. The public had expected that it was sustainable in every respect, but it was found to contain pesticide residues. The Committee heard that where there were safety concerns about any food, the Food Standards Agency would normally be involved.

**4. Should the Committee in its next Annual Report make some mention of the cost (resources needed) of individual tests so that "outsiders" can assess the possible costs of their inevitable demands for more testing?**

- A. The VRC would welcome the views of stakeholders on what testing should be undertaken. The Committee could then assess the suggestions using its Matrix Ranking system to prioritise the sampling that can be undertaken.

The Committee do not think it is necessary to publish the costs of individual analyses to enable suggestions to come forward. The costs of the analyses are commercially sensitive information. The cost of analysis is also greatly influenced by the batch size and the speed with which a result is required.

**5. The toxicity of ionophore antibiotics, which have frequently been found as residues in food, is increased when in the presence of a number of antibiotics in use in human and veterinary medicine (e.g. Macrolides, tiamulin, sulphonamides and chloramphenicol).**

**This 'cocktail effect', which can also occur with other substances, is not taken into account by regulators when setting safety limits such as ADIs and MRLs.**

**Does the VRC think the cocktail effect should be taken into account for setting such safety limits, particularly in the case of ionophores?**

**6. Are regulators planning on taking the cocktail effect into account in the future?**

**7. If so, when?**

**8. When particular cocktail effects are already known, as with the ionophores, would the VRC consider introducing simultaneous testing of samples instead of separate testing?**

- A. for 5-8. The Committee is pleased to report that currently ionophore substances are not frequently found in foods. In 2005:

- only 6 'positives' (residues above the MRL or reporting limit) of ionophore compounds were detected in over 800 analyses.

- 7 'positives' were detected for sulphonamides in over 6500 individual analyses (1000+.specifically for sulphonamides and antimicrobial screen)
- No positives were detected for tylosin and chloramphenicol. No analyses were undertaken for tiamulin.

The 'cocktail effect' is not taken into account in the setting of ADIs as these are set for individual substances. When setting MRLs for substances with dual pesticidal and veterinary use, the values set for edible tissues do take into account intakes from other sources. When interactions such as those between ionophores and tiamulin are known, warnings against co-administration are included in the product literature.

The possibility of 'cocktail' effects of both pesticides and veterinary medicines is under consideration following the publication of the Committee on Toxicity's Working Group on Risk Assessment of Mixtures of Pesticides report (WiGRAMP report). Ongoing work to address the recommendation from the WiGRAMP report is considering methods of assessing combined effects of substances with common mechanisms of action.

The FSA has 17 research projects underway, to try and move the issue forward. Further information is available from the FSA. The VRC will follow with interest the development of any robust method.

The VMD surveillance programme already contains tests that screen for antimicrobial substances and also more specifically for ionophore substances.

The European Commission has stated that it would prefer that most samples are only subjected to a single test. This is so that results from the different EU countries can be more readily compared. If any 'cocktail' effect could be shown to be significant, the VRC would wish to consider whether multiple testing of individual samples would be desirable.

**9. Imported foodstuffs are tested under the 'non-statutory scheme'. However, funding for this scheme is limited. Does the VRC consider that the current residue testing of imported produce is adequate?**

- A. **SK** said no and added that we all want to know our food is safe and that the Committee had made a plea for more funding. The statutory scheme was funded by a levy, while the non-statutory scheme was funded by Defra. With the pressure on budgets, it was difficult to secure extra funds.
- B. **EC** explained that Council Regulation 882/2004 sets charges to be made on importers for testing. He was in discussion with the Division that has responsibility for implementing the charges aspect of the legislation to establish the level of funding this charging would generate. It remains to be seen whether this would cover the level of testing the Committee would like to see.

Any third country that wished to export food to the European Union had to submit a residues surveillance plan and results of at least equivalent status to that required in the EU. The EU's Food and Veterinary Office carried out a system of audits of the systems, and it was clear that many countries took their responsibilities very seriously.

The Border Inspection Posts also have the ability to take samples where they has suspicions. In future, the possibility of 'joining-up' the BIP and Non-statutory sampling was seen as desirable.

**10. Between 2000 and 2004 quail eggs were tested for lasalocid residues. Of 140 samples in total, 42 (30%) were positive for residues of lasalocid above the reporting level, with 10% of samples having concentrations between 10 times and 135 times higher than the reporting level. Despite these very high residue levels, when it was decided to focus the non-statutory scheme on imported produce, the testing for lasalocid residues in quail eggs was dropped. I was told by the VMD at last year's VRC open meeting that quail eggs would then be tested under the statutory scheme, but this has not happened.**

**Are the VRC going to reintroduce the testing for lasalocid in quail eggs?**

- A. The VMD has looked into the possibility of Egg Marketing Inspectors sampling quail eggs on producers' premises. However, this sampling could not be undertaken as part of the statutory surveillance programme since the Commission Decision only covers hen eggs.

The VRC can examine the case for including lasalocid in quail eggs in the Non-Statutory Scheme using its Matrix ranking system, in the same way it looks at all possibilities.

**11. and 12<sup>2</sup>. Lasalocid is not licensed for use in quail, and since it is not a veterinary medicinal product it is our understanding that it cannot be used under the cascade, so what explanation is there for these residues?**

**What action has been taken to ensure they no longer occur?**

- A. Lasalocid is the active ingredient in Avatec CC, an authorized veterinary medicinal product in the UK. The EMEA MRL for lasalocid is set for 'poultry', which would allow it to be authorised for quail. It would, therefore, be possible under the responsibility of a veterinary surgeon to use Avatec in Quail under the prescribing cascade as stated in Schedule 4 of the Veterinary Medicines Regulations 2006.

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<sup>2</sup> Although questions 11 and 12 were not answered at the meeting because of time constraints, an answer is included here.

We understand that lasalocid had not been knowingly used on the farms concerned and that it was likely that the residues occurred because of cross-contamination at the mills manufacturing the feed. The company had changed feed suppliers to try and avoid such residues in the future.

**13. Chickens fed the coccidiostat nicarbazin show an increased sensitivity to heat stress, resulting in decreased weight gain and increased mortality.**

**It is reasonable, therefore, to expect that more nicarbazin will be used during the winter months than the summer months, and that some other coccidiostats (e.g. lasalocid) will be used in greater quantities in the summer rather than the winter.**

**Since the testing program is meant to be targeted at tissues most likely to contain unacceptable residues, will the VRC consider increasing the amount of testing it does for nicarbazin residues during the winter months and for lasalocid residues during the summer?**

- A. **SL** reported that in his experience of the poultry industry, there was no evidence of a seasonal use of nicarbazin. **MG** told the meeting she had examined the results and had also found no seasonal trend

**14. A recent EU inspection has found high levels of antibiotics in some British milk, but the UK's Statutory Surveillance Scheme failed to find any such residues.**

**15. Could the VRC tell us which antibiotics were detected, and at what concentrations?**

**16. Were these antibiotics tested for under the Statutory Scheme?**

- A. for 14-16. The FSA reported that the EU's Food and Veterinary Office had visited the plant in question in June as part of a mission to check the application of new hygiene regulations in the meat and dairy sectors. Its inspectors had questioned various practices at one dairy. The FSA had undertaken a full audit, but had not identified any food safety risks. However, as a result, the company had made a number of changes in practices.

The EU inspection had not found high levels of antibiotics in British milk for sale to consumers. The Commission were concerned that milk that had failed antibiotic screening tests in one dairy had been re-tested at the dairy in question and the milk used to make curd cheese if a further test was negative. The tests were commercial rapid screening tests to identify the possible presence of antibiotics and are, by definition, not specific to a particular antibiotic and do not measure the concentration.

As antibiotics have different MRLs and each antibiotic will have a different response in the test it would be difficult to set a screening test that was close to each of a range of MRLs. VMD's understanding of these tests is

that they indicate the possible presence of an antibiotic and are designed to fail safe i.e. they will give false positives, but not false negatives, at or below the MRLs for the antibiotics it has been shown to detect satisfactorily.

Only a test identifying and quantifying the antibiotic residues can demonstrate whether the maximum residue limit for any antibiotic had been exceeded. Such confirmatory tests are used in the UK's National Surveillance Scheme.

Under the 2006 NSS for milk there have been 13 screening positives for samples tested by the fully validated Delvo SP test to date but only one of these has confirmed positive. This was for a residue of penicillin G above 10µg/l.

**17. Why does the Statutory Scheme not test for certain antibiotics very widely used in dairy farming (e.g. Cloxacillin, amoxicillin, ampicillin, trimethoprim, neomycin), while 640 samples were tested for residues of dimetridazole and chloramphenicol, even though these are no longer used in farming in the UK?**

- A. Cloxacillin, amoxycillin and ampicillin are included in the antimicrobial screen. Trimethoprim is usually used in combination with sulphonamide antibiotics and these are more likely to be detected by analysis. There are only two authorised products with neomycin, which has a low acute oral toxicity >2000mg/kg bw/day.

The EU Directive (96/23/EC) that governs which substances the surveillance scheme looks for requires that a certain percentage of the samples are tested for banned and unauthorised substances. This is to check that these substances are not used; dimetridazole and chloramphenicol are tested for to help meet this requirement.

**18. Does the Statutory Scheme test for ceftiofur?**

- A. At present the National Surveillance Scheme does not test specifically for ceftiofur. Only two authorised products contain ceftiofur and these have a zero days withdrawal period for milk, which makes the detection of residues unlikely. However, CSL have now developed a validated technique to determine ceftiofur in milk.

**Annex II Afternoon Question and Answer Session****1. What are the major limitations that restrict the number and type (e.g. urine, serum) of samples analysed? Financial or technical?**

A The limitation was financial. An EC Directive sets out the groups of substances to be analysed and the numbers of samples to be taken for the National Surveillance Scheme. There is little leeway as to what to look for. European law also requires that the VMD charge the costs of the programme to the farming industry, so any extra sampling that is undertaken will mean extra costs to industry.

**2. Is the scientific literature base currently adequate to realistically assess combinational effects of residues within the 'Matrix Ranking' or other system? If not does the VRC have plans on recommendations as to how this gap in our knowledge might be addressed?**

A. **SP** indicated that there was already literature available on classes of compounds with similar modes of action and a symposium had been held. The FSA website had an action plan of research for assessing the possible effects of mixtures of chemicals, including at low doses: <http://www.food.gov.uk/multimedia/pdfs/wigrampapmay06.pdf>.

The VRC would examine substances on a case-by-case basis where there was evidence of additive, synergistic or antagonistic effects. It was noted that the extreme score in Matrix Ranking was for carcinogenicity – what was the status of other serious conditions, such as Parkinson's disease? **SP** explained that if this were identified as a possible adverse effect, a score would be allocated, possibly a '6'.

**DC** stressed that the VRC wanted an effective system of prioritising candidate substances. While the Matrix-Ranking Group were considering factors to refine the system and increase its scientific robustness, the VRC also wanted it to be simple enough to be understood by non-specialist stakeholders.