

## PROTECT – INVESTIGATION

### FINAL NOTE OF CHEMICAL HAZARD IDENTIFICATION AND RISK SURVEILLANCE GROUP MEETING ON 2 DECEMBER 2009 AT 1:00PM IN CONFERENCE ROOM 4, AVIATION HOUSE

#### ATTENDEES

Chris Livesey	(Chair)	Veterinary Laboratories Agency
Jo Payne	(JP)	Veterinary Laboratories Agency
John Caseley	(JC)	Food Standards Agency
Beth Dunn	(BD)	Food Standards Agency
Barry Maycock	(BM)	Food Standards Agency
Christina Baskaran	(CB)	Food Standards Agency
Steve Wyllie	(SW)	Department for Environment, Food and Rural Affairs
Alison Gowers	(AG)	Environment Agency
David Harris	(DH)	Animal Health
Colin Crews	(CC)	Food and Environment Research Agency
Graham Urquhart	(GU)	Health Protection Agency
Martin Ball	(MB)	Health and Safety Executive (via teleconference)

#### WELCOME & INTRODUCTIONS

1. The Chair welcomed everyone to the meeting and, in particular, new member Graham Urquhart from the HPA. Apologies for absence have been received from Alison Gleadle and Diane Benford (both FSA), David Webb (VMD), Ruth Lysons and Trish Logie (both Defra), Paul Johnson (HSL), Chris Pidgeon (PSD), Martin Rose (FERA) and Ovnair Sepai (HPA). Christina Baskaran was deputizing for Alison Gleadle, Martin Ball was deputizing for Chris Mawdsley and Colin Crews was deputizing for Martin Rose.

#### MATTERS ARISING

##### **Feedback from UKZADI**

2. JC advised that one outstanding action from the last meeting concerned the question of feedback from UKZADI in relation to the briefing paper presented on CHAIRS. The UKZADI Secretariat has since confirmed that the report was received with interest, but there were no follow up questions.

##### **Forward work plan**

3. JC informed members that another action concerned additional items for the forward work plan. He confirmed that topics put forward included arsenic surveillance, recycled material used as animal bedding and further research on PFOS. The Chair queried the inclusion of PFOS, on the basis that this has now been withdrawn from use. Members therefore agreed to remove this item from the forward work plan.

##### **Rhodia incident**

4. JP gave an update on recent developments, as follows:
  - Tissues from a swan that was post mortemed by VLA in the spring were submitted by Rhodia to Harlan Laboratory, Derbyshire to be tested for the presence of white phosphorus (P4). P4 was detected in the gizzard content of the swan, confirming that exposure had occurred. P4 was identified in the gizzard but P4 levels in other tissue samples were below the Harlan Laboratory LOD. The identification of P4 in the absence of evidence of any alternative cause of death suggests the death was probably caused by P4.
  - A dead Canada goose was submitted in October for post mortem. The goose had allegedly shown nervous signs prior to death. No alternative cause of death was established at post mortem. Rhodia have indicated that they will again submit tissues to Harland for P4 analysis.
  - Rhodia are continuing their work on the lagoon to make it safe.
5. The Chair commented that as P4 probably caused the death of the swan the investigation confirms current environmental contamination with P4 and suggests the levels of contamination in or around the lagoon could poison wildlife or humans. MB confirmed that HSE had inspected the site and advised Rhodia about security there. It was agreed that members were effectively joined up regarding this case, however if any further incidents or changes arise then the matter should be discussed again by the CHAIRS group.

### **Metalddehyde incidents**

6. JC referred to the metalddehyde incident discussed at the last meeting. An action arising from this discussion was for HSE to consider the question as to whether the biocide approval process could provide data that would help experts determine appropriate withdrawal periods for animals and milk during incidents. HSE has responded that the approval conditions for pesticides and biocides take into consideration the intended use of the product and are designed to prevent poisoning or contamination. They cannot, however completely prevent poisoning or contamination which arises through misuse or abuse of products. HSE added there is no requirement under current EU legislation for additional data to be generated to assess the potential impact of poisoning of livestock, and that to ask for such data to cover all eventualities would require a substantial increase in animal testing and place an onerous burden on approval holders.
7. The Chair commented that livestock are occasionally poisoned by careless use of these approved products, confirming they are not always used correctly or that accidents occur. BM commented that, when FSA encounter food animal exposure, their toxicologists often cannot specify a precise withdrawal interval, because of shortage of data and have to make conservative assumptions and extrapolations. SW said that it would be very costly and time consuming to gather the range of animal data required and queried whether there was any existing research that could be utilized. BM confirmed that FSA carried out a full literature search, but the research found<sup>1</sup> was of limited value, in this instance<sup>2</sup>.
8. SW suggested that when new cases come to light, that repeated sampling is carried out to ascertain residue levels and rates of clearance. This suggestion was noted. The Chair suggested that serial sampling would be helpful in some cases but not in others, depending how rapidly the particular chemical is metabolized and excreted. A minimum of three serial samples on the same animals would be necessary to produce useful pharmacokinetic data. JP confirmed that current VLA sampling advice to vets<sup>3</sup> following metalddehyde incidents in dairy herds was to instruct farmers to collect and freeze milk samples at the first opportunity, for subsequent analysis, which is sufficient information for managing metalddehyde incidents.

### **Classification of incident reports**

9. JC referred to discussion at the last meeting about the incident reports from the VLA and how they should be classified in future. It was confirmed that after consulting FSA security and legal experts, their view is that, in this instance, the 'Protect – Investigation' classification would seem the most appropriate. JC said this was good news, as this means that VLA can now additionally e-mail the notifications to EA, HPA and HSL who are not currently part of the gsi network, rather than send notifications to them by mail. FSA security experts add that all recipients of this information need to handle and store the information securely at all times. Since the last meeting VLA have updated their notification procedures accordingly.

s. 31(1)(g) and s. 31(2)(a) to (c) FOIA.

<sup>1</sup> For example, a study on the kinetics of metalddehyde in rats

<sup>2</sup> BM also referred to case reports of metalddehyde poisoning in cattle, however this data was inconclusive in relation to levels of milk contamination.

<sup>3</sup> Ref: Veterinary Record article dated 7 November 2009

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Section 31(1)(g) and s. 31(2)(a) to (c) FOIA

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Section 31(1)(g) and s. 31(2)(a) to (c) FOIA

Section 31(1)(g) and 31(2)(a) to (c) FOIA.

#### **Communications issues – raising the profile of CHAIRS**

15. The Chair advised that the reason for including these two incidents in the agenda is that they highlight continuing communications issues. He confirmed that CHAIRS provides a forum where such events can be routinely reported to all members and that each member has their part to play to ensure that others are kept informed. This was noted. The Chair added that with the group now a year old, it may be an opportune moment to reflect on what has been achieved and also attempt to raise the group's profile. With these goals in mind, the Chair suggested that an annual report should be produced covering the work of CHAIRS and in addition consideration should be given to including CHAIRS material on an external website<sup>4</sup>
16. The following comments were made by members regarding the above proposal:
- JP commented that CHAIRS is not high profile enough within individual agencies.
  - AG advised that operational procedures should be amended to include contact being made with CHAIRS where necessary.
  - MB suggested setting up an 'invite only' government forum, to ensure that restricted / sensitive information is protected.
  - GU offered to produce a briefing note to circulate within the HPA (with specific emphasis on people responding to chemical incidents) describing the CHAIRS group. This might contribute to the CHAIRS annual report, if appropriate.
  - JC supported the idea of including CHAIRS info on a website & producing an annual report; in connection with the latter point he said he would look for some funding for this. He also agreed to talk to other members of the FSA's Incidents Branch to ensure incident notifications are shared with CHAIRS members, as appropriate
17. All the above points were noted. Regarding the production of a CHAIRS annual report, as a first step it was agreed to consider the publicity routes and communication methods used by the HAIRS group.

**ACTION: JOHN CASELEY**

#### **RAGWORT POISONING**

18. The Chair introduced this agenda item, as follows:

- Members will recall that a ragwort incident was discussed at the September meeting. Ragwort, which is a controlled weed, is harmful to livestock and potentially a public health issue in food animals. At that meeting it was agreed that, in terms of incident prevention, it would be useful to raise awareness of the issue of ragwort poisoning and specifically promote the Defra Code of Practice. As a first step it was agreed that the Defra Code of Practice should be circulated to all members. This was done on 13 October. Also it was agreed that LACORS and Natural England should be contacted to establish their respective policies on ragwort control. The Secretariat has contacted both. Natural England has provided an information note regarding ragwort management which has also been circulated to members. LACORS has advised that the Weeds Act 1959 and related legislation do not fall within the LACORS remit and as such there is no LACORS policy on ragwort control.
- Unfortunately, the control of Ragwort is not straightforward so producing simple advice is a major challenge.

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<sup>4</sup> The Food Standards Agency website was suggested, as the FSA provides the Secretariat for the group. Other Agencies could link their websites to the FSA's.

- The Defra advice is sound and should be referred to as the "gold standard" but it is too long for an advisory leaflet.
  - The Regulation has been thought through and seems appropriate, as it is allowing ragwort to spread to other premises / land that is the offense. VLA find it irritating that horse owners and responsible farmers seem to be pretty diligent about controlling ragwort but it only takes one landowner in an area allowing their ragwort go to seed and everyone nearby has it the following year. The seeds seem to have a very high germination rate.
  - Natural England will resist full control, as they defend the presence of Ragwort as part of our flora and an essential plant for some insects. They want it to flower and propagate and advise farmers to control it in their own pastures by good pasture management.
  - Local authority land is frequently contaminated with ragwort, such as grass verges and common land. Control could have cost implications for ratepayers.
  - Ragwort may be particularly difficult to control on:
    - Nature reserves and Sites of Special Scientific Interest (SSSI), bearing in mind the Natural England policy.
    - "Setaside" land
    - Headlands, field margins, hedgerows left fallow as part of Defra promoted "green policies".
    - Woodland and biofuel crops such as willow and miscanthus grasses.
    - Land managed for shooting.
  - Effective controls are generally either labour intensive or cut across the Natural England policy.
    - Herbicide treatment seems to require individual "spotting" of ragwort plants - limiting practicality
    - Biological control (Cinnabar moth) is still being developed
    - Manual removal of plants is only practical on small areas of land.
    - Ragwort seems to be a "semi-annual", as it apparently dies after flowering but if it is cut before it flowers it is likely to regrow at least once or twice. However this suggests it will eventually die if it is continually cut.
    - It is suggested that the easiest method of complying with the Regulation on grass verges, etc is to cut the ragwort before it flowers. Cutting is not usually appropriate on farms (unless cut plants are immediately collected and burned) as dry ragwort is much more palatable and cutting increases the risk of poisoning of grazing animals and residues in food animal products.
    - It is very important that ragwort is not cut and included in hay or silage.
    - Ragwort has been controlled traditionally by allowing sheep to graze it. This seems to be effective and does not usually cause poisoning but care would need to be taken in making reference to this in official advice (e.g. include sheep as a control method but emphasise that it is ultimately toxic and the sheep should also have access to good grass).
19. CC said that he was aware of research carried out in the US which indicated that beetle / moth control has proved effective. Ensuring good land management is also important, including maintaining grass coverage to prevent ragwort seeds germinating. Weedkiller treatments have been found to be less effective than regular cutting, which has been shown to eradicate ragwort. The use of Citronella oil has also been shown to be an effective natural treatment. A research study carried out by FERA showed that alkaloid toxins disappeared from silage, suggesting they are hydrolysed, but JP commented that a recent severe ragwort incident was caused by ragwort contaminated silage. Some data is also available on alkaloid concentrations at different stages of ragwort growth; this showed that the alkaloids are produced in the roots and concentrate in the growing areas of the plant, particularly the flowers. JC commented that the Agency's Emerging Risk Unit are content for a short leaflet to be produced for farmers highlighting the risks of ragwort.
20. SW advised that Natural England should be involved in any further discussions. It should be established how far ragwort control can be taken before negative effects on wildlife occur. Exploration should also take place to identify which management strategies are most effective, and whether there are any other plants that can replace ragwort on SSSI and other fallow land, which are not harmful to animals. It was agreed to hold further discussions on this issue with Natural England and Defra. JC agreed to co-ordinate this.

**BLOOD SWEATING DISEASE**

21. JP introduced this item, as follows:

- This is a disease presentation (syndrome) which has been increasingly seen in Europe over the last 2 years and in the UK since 2009. It is seen in both beef and dairy calves which are 1 to 3 weeks old. The calves appear to bleed from all orifices and multiple haemorrhages are seen internally. The pathology is associated with bone marrow suppression which gives rise to decreased platelets initially (thereby causing blood clotting disorders) and then a decrease in other cells, red blood cells giving rise to anaemia.
- Bone marrow damage can be caused by genetic, toxic, physical or infectious factors or be idiopathic and include immunopathological processes. Various toxic aetiologies have been looked for and ruled out.
- There has been no indication of viral disease in the affected calves and the condition would not appear to be 'infectious' as only one or two calves from a unit appear affected. The syndrome is thought most likely associated with a colostrum reaction by the calf to maternal antibodies in the colostrum. Antibodies associated with dam vaccination to Bovine Viral Diarrhoea Virus (BVDV) and/or Blue Tongue Virus are being further investigated.

22. The Chair asked members for comments regarding this issue. SW commented that sporadic cases have been seen on the continent since 2006. Since that time there has been an exponential increase in the numbers of cases, however there is no evidence of zoonotic transmission. JP added that the increase in numbers of cases has mirrored the increase in bluetongue vaccination, however there is no confirmed link between the vaccine and blood sweating disease. SW circulated information on the disease from HAIRS. It was agreed that the group would continue to monitor this issue closely.

**AOB**

23. AG advised that the EA's Waste Protocol Team are going to be looking at the issue of recycled wood chips as animal bedding. The project team had suggested that it might be appropriate for a CHAIRS member to sit on their technical advisory group. The Chair suggested that Martin Rose (FERA) has previously expressed an interest in advising on this matter. MB added that Robert Hadway (Agriculture Inspectorate) who is involved in work looking at bedding systems, may also be able to advise and should be kept informed. MB agreed to provide AG with contact details, and AG agreed to keep the group informed of developments in this work.

**ACTION: MARTIN BALL (HSE) & ALISON GOWERS (EA)**

24. JP referred to the Brampton recycling product, which has raised some concerns (particularly in relation to dust inhalation). MB noted the article which related to a locally available product but added that they did not have the resources to investigate all products and certainly not those that are only marketed on a small scale. SW advised that the potential for animals ingesting recycled bedding material should be considered, and also queried whether there is any generic advice available to the farming industry regarding bedding materials. AG confirmed that the EA is currently developing guidance and is working with VLA to produce an item for communication in their newsletter and will seek comments from CHAIRS members regarding this in due course.

25. AG asked if it would be possible for a contact list for CHAIRS members to be circulated. BD confirmed a list is available and will circulate to members.

**ACTION: BETH DUNN (FSA)**

**NEXT MEETING**

26. JC confirmed that the Secretariat will shortly be trawling around for suitable dates for the 2010 meetings. The next meeting which will be in the spring will be via teleconference. SW requested that meetings are not held during the first week of the third month of each quarter. This was noted.

**ACTION: BETH DUNN (FSA)**

**INCIDENTS BRANCH  
FEBRUARY 2010**