Review of Official Laboratories in Feed and Food Enforcement - Phase 1

Report to the Food Standards Agency

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Executive Summary

The aims of this study were to:

(i) summarise the role of the different types of laboratories which provide a service to Local Authorities and Government departments on feed and food enforcement;

(ii) identify and engage with Government departments responsible for Official Controls in feed and food;

(iii) summarise the current capability and capacity of laboratories undertaking Official Controls of feed and food for Day 1 of EU Exit;

(iv) highlight the gaps, deficiencies and areas for improvement in the current system and improvements that can be made within the current legislative framework;

(v) provide suitable recommendations for improving the system.

Addressing each of these in turn:

(i) **summarise the role of the different types of laboratories which provide a service to Local Authorities and Government departments on feed and food enforcement**

There are two types of laboratories involved in feed and food enforcement, these are all designated by the relevant Central Competent Authority:

- Official Control Laboratories (OCLs)[1] who must have Official Control scientists. In the UK the Official Control scientists are Public Analysts (PAs)[2], Agricultural Analysts (AAs)[3] and Food Examiners (FEs)[4].
- Official Laboratories (OLs)[5] .

[1] An Official Control Laboratory is a laboratory designated by the Central Competent Authority to carry out feed and food enforcement and who employs an Official Control scientist.

[2] A Public Analyst is a food scientist qualified under the UK Food Safety (Sampling & Qualifications) Regulations 2013 and appointed by a UK Food Authority under section 27 of the Food Safety Act 1990 to undertake chemical analysis of food samples,

[3] An Agricultural Analyst is a food scientist qualified under the UK Feed (Sampling and Analysis and Specified Undesirable Substances) Regulations 2010 and appointed by a UK Food Authority under section 67 of the UK Agricultural Act 1970. An AA undertakes analysis of feed and fertilizer samples.

[4] A Food Examiner is a food scientist qualified under the UK Food Safety (Sampling & Qualifications) Regulations 2013 and instructed by the UK Food Authority under section 27 of the Food Safety Act 1990 to undertake microbiological examination of food samples.

PAs and AAs are appointed by Local Authorities (LAs) to undertake the feed and food enforcement activity while FEs are instructed by the LAs undertaking the feed and food enforcement activity. In addition to the OCLs, Government departments across the four countries also commission specialised services from a range of other OLs to undertake their own Official Control responsibilities. These laboratories do not employ PAs, AAs or FEs.

The CCAs, or the bodies to which the CCA has designated responsibility (e.g. the Health and Safety Executive (HSE) for pesticides and the Veterinary Medicines Directorate (VMD) for veterinary medicines), also appoint National Reference Laboratories (NRLs) to provide support to the network of OCLs and OLs. In some cases, the NRL is also designated as an OL however this is not the case for all areas of feed and food safety.

This study was commissioned to specifically consider the capability and capacity of all laboratories involved in Official Controls for feed and food, i.e. all OCLs and OLs. However, there are other UK laboratories that are not appointed OCLs or designated OLs that support this function and so also help to deliver the UK feed and food safety testing. These include the NRLs as well as other competent and accredited testing laboratories who can deliver the work under sub-contract from an OCL or OL if required. These laboratories were outside of the scope of this review.

(ii) **identify and engage with Government departments responsible for Official Controls in food and feed**

The report provides information on the structure of the Official Control system for feed and food in the UK and the role(s) of the laboratories involved. The situation is complex. The Central Competent Authorities (CCAs) are the bodies responsible and accountable for Official Controls. In England, Wales and Northern Ireland it is the Food Standards Agency (FSA) for feed and food enforcement and in Scotland it is Food Standards Scotland (FSS). However, there are several other bodies (such as Local Authorities (LAs), VMD and HSE) that are regarded as Competent Authorities. The Competent Authorities are those bodies who either the CCAs have delegated official controls to or who were designated this role as part of the regulatory functions (as is the case for pesticides and veterinary medicines). These organisations take Official Control samples for various Government Departments including the FSA, FSS, Defra, Department of Health and Social Care, Public Health agencies, the Scottish Government, and other Government departments across the UK.

[5] An Official Laboratory (OL) is a laboratory designated by the Central Competent Authority to carry out feed and food enforcement.

The information reported here was obtained following contacts with all of the Government departments listed above who provided details of the Official Control Laboratories and other designated Official Laboratories involved in Official Controls for feed and food. These laboratories were then contacted directly. Responses were obtained from all laboratories and were assumed to be comprehensive of all tests conducted for Official Controls purposes.

(iii) **summarise the current capability and capacity of laboratories undertaking Official Controls of feed and food for Day 1 of EU Exit**

There is laboratory capability for official testing of samples for microbiological contamination across the UK with a number of Food Examiner and Public Analyst laboratories being able to undertake all the required analyses. However, for chemical analyses (see below), several areas have an insufficient number of UK based OCLs and / or OLs capable of performing enforcement for feed and food controls. In particular there is limited / no capability within the UK OCLs and / or OLs in the following areas:

- to determine concentrations of all regulated plant toxins in feed and food samples;
- the testing required to demonstrate compliance with the Regulations on materials and articles in contact with food;
- concentrations of halogenated Persistent Organic Pollutants (POPs) in feed and food;
- glycidyl fatty esters;
- some feed additives;
- some authenticity tests;
- GM testing.

However, these OCLs/OLs also have access to other competent and accredited UK laboratories that they can and do work with, to ensure that the feed and food enforcement samples can be tested to an appropriate standard. These include NRLs and other UK testing laboratories. The cost to set up the analyses for the areas of limited / no capability in a laboratory is prohibitive unless large numbers of samples can be guaranteed together with a sampling strategy and budget. Considering the number of official samples taken in these areas in recent years then it is maybe not surprising that this capability has not been developed / maintained at this level.

Although there are gaps in UK OCL/OL capability for some chemical analyses (see above), it is reassuring that all the laboratories involved in Official Controls for feed and food have the

instrumentation and skilled resource to be able to implement new methods in their respective laboratories with appropriate funding. This is not the case for the OCLs/OLs on Day 1 of EU Exit as the time taken to develop, in-house validate and gain accreditation is beyond this timeframe. However, with the appropriate training most of the tests required to support the enforcement could be covered by the network of UK OCLs/OLs.

The UK testing capability as a whole does have the capability and capacity to fulfil the legal requirements for feed and food official controls on Day 1 of EU Exit. When considering the UK OCLs and OLs only, there is insufficient capability and capacity in some areas to fulfil the legal requirements for feed and food official controls on Day 1 of EU Exit. However, from the information obtained in the completed questionnaires it is evident that OCLs and OLs can and do have access to the network of overseas partner laboratories, NRLs and other testing laboratories by means of sub-contracting. This means all the tests discussed in this report are available for feed and food enforcement purposes currently and will continue to be for Day 1 of EU exit under normal enforcement operations.

(iv) **highlight the gaps, deficiencies and areas for improvement in the current system and improvements that can be made within the current legislative framework**

Whilst conducting this review it has become apparent that the approach to Official Controls is not consistent for all areas and that the different CCAs follow different approaches in accordance with the different legislation in place. The FSA is the CCA for most areas of feed and food control in the UK whereas Defra is the CCA for pesticides and veterinary medicines. Defra has designated responsibility for pesticides to the HSE via a set of agency agreements that specify the list of statutory functions which HSE can carry out on their as well as that of the devolved administrations and have designated responsibility for veterinary medicines to VMD. Monitoring plans for veterinary medicines and pesticides are co-ordinated at a national level (by HSE and VMD), while there does not seem to be an equivalent for contaminant analyses. For official microbiological analyses, LAs can submit samples to the Public Health laboratories (in England, Wales and Northern Ireland) at no charge due to a Public Health Agencies funding scheme that is in place but there is no equivalent scheme for chemical analyses testing in these countries although some sampling may be available through local funding. This means the costs associated with contaminants analysis reside, on the whole, with the LAs, which ultimately impacts on the numbers of samples taken and submitted for analysis. The situation is different in Scotland as FSS have different funding programmes. There is no Department of Health and Social Care funding for microbiological testing in Scotland. Microbiological testing is undertaken by the OCL network

laboratories. FSS funds an LA grants programme which provides additional budget to the laboratories to target certain areas of feed and food safety identified based on risk. This disparity between the chemical and microbiological laboratories and the lack of transparency and accountability of the owners of the different Official Control areas is not the most economic use of resources or the most effective way of managing Official Controls.

(v) **provide suitable recommendations for improving the system**

The structure of the Official Control system in the UK is complicated with numerous official organisations involved. The key recommendations from this Report are:

1. Designate one cross Government body in each of the UK countries as responsible for feed and food safety controls. Responsibilities for controls are devolved, therefore each devolved authority should have a designated body who has overall responsibility for feed and food controls. These bodies should work together and co-ordinate their activities. This would provide for a more simplified system with a more consistent approach across the UK.

2. The designated Government bodies should act as CCAs as defined in the Official Control Regulations (Regulation (EU) 2017/625). The CCAs should plan, co-ordinate and fund (either directly or through industry levies) the sampling for Official Controls for areas within their remit. At the present time, in England, Wales and Northern Ireland responsibility for feed and food safety for chemical contaminants is delegated to the LAs who, with reduced and different budgets, are not able to fulfil this role. In Scotland, funding is different, FSS fund a LA grants programme which provides additional budget to the laboratories to target certain areas identified based on risk.

This is evidence of the fragmented and disjointed service that is currently in place. Government departments (policy makers and enforcers) with feed and food safety enforcement responsibilities need to work better together to deliver efficient Official Controls. For example, this could include sharing sampling programmes and samples to save money. There should be more formal interaction between those involved in Official Controls, and they should make better use of the Official Laboratories (OCLs and OLs) to ensure there is sufficient throughput of samples to retain their viability.

The model for a central body co-ordinating a nationwide plan is already in place in the UK for pesticides and veterinary medicines where the National Sampling and Monitoring are co-ordinated directly by the Competent Authorities HSE and VMD respectively and so the same approach could be rolled out across the other areas of feed and food safety.

3. Ensure sufficient numbers of samples are taken. Although all available data sources should be used to provide risk-based sampling plans the number of samples taken needs to be sufficient to justify developing and / or maintaining capability and so longer-term contracts that provide this are recommended. Without a guaranteed return on the investment required to develop, in-house validate and obtain accreditation for a given method then the OCLs and OLs will not extend the scope of the testing services they provide and the capabilities for Official Controls (through the OCLs/OLs) will not change.

4. Establish Centres of Excellence or expertise for specific services. One way to address this would be to move from the system where all OCLs that employ PAs are expected to provide all services to their Local Authorities. Instead a 'Centres of Excellence' model would be better suited to allow a sustainable laboratory network to be maintained. The NRLs already have the expertise and therefore could train and develop a small number of OCLs/OLs (e.g. 2 or 3) to be able to carry out particular tests. These laboratories would then be more viable as they would be guaranteed to receive all of the UK samples for this particular test. This would be operationally more efficient for them and would also allow them to maintain the required skills and expertise as they would have sufficient workflows and numbers of samples. Different clusters of laboratories could be assigned to different areas, e.g. the three laboratories trained in the analysis of plant toxins need not be the same as those trained in the analysis of halogenated POPs. This would mean that as long as the sampling and associated funding was shared across all areas then all OCL/OL functions could be sustained, and capability could be developed.

Increased capacity could also be achieved by authorising more laboratories, e.g. the NRLs or other testing laboratories to act as Official Laboratories. For pesticides and veterinary medicines this is already the case with the NRLs also designated as OLs. All of these factors, aligned with a more co-ordinated across Government and CCAs, centrally funded sampling programme, would have the greatest impact on ensuring continuation of the supply of UK based laboratory services for Official Controls.