

Concept Paper – State Laboratory Centers of Expertise in Feed Testing

The idea of having a network of State Laboratories with defined and specific expertise in certain chemistry testing areas is not new and has been around for many years. Indeed, this is the model used by most National and Global analytical testing laboratories, as well as Federal Agencies in the U.S. and abroad, that operate multiple laboratory locations. The advantages of such a system allows for individual laboratories to focus their resources on a portion of the overall testing regime offered by their Organization, leading to efficient testing and lower overall costs to deliver a wide range of analytical capability.

In an environment where State Labs are accredited to ISO 17025, they will be required to demonstrate technical competence for the tests they perform to their accrediting body. This can only be achieved by running methods frequently on samples covering the matrices of interest. Methods that are run infrequently would inevitably lead to laboratories not maintaining accreditation in those testing areas. One of the pillars of the Food Safety Modernization Act (FSMA) is the idea of data acceptance between federal, state, and territorial laboratories provided that they meet a minimum set of quality criteria (ISO 17025). Given this FSMA mandate, along with the growing list of contaminants, and the increasing cost of instrumentation, it becomes very difficult for individual State laboratories to deliver a robust program. A network of expert laboratories that can share the analytical testing workload would be able to accomplish this much more efficiently and effectively.

It is currently envisioned that a multi-State network of laboratories with differing testing specialties could be instituted in some form to provide accredited testing for a wide array of methodologies on food/feed samples. This cooperative approach would allow State inspection programs to have access to a wider range of test methods than would be available from their State lab alone. In such a system, States would have the ability to focus their resources on areas where they have validated methods and could become expert in those areas. By receiving their own, as well as other State samples, they could run full sample batches, maximizing the testing efficiency and keeping the cost per test low. They could forego purchasing certain equipment and becoming accredited on certain test methods if other State laboratories within the network had those capabilities.

ACTION ITEM: The Laboratory Methods and Services Committee suggests to form a working group that would develop plans to identify and implement a network of State Laboratories that would form the Centres of Excellence. A working group of 10 to 15 individuals comprised of State Laboratory and Program personnel, members of the FDA, and Private Testing Labs is proposed. The WG would collect information and identify best practices from Organizations that have adopted this laboratory format. Methodologies and testing programs would be identified that would be well suited for this initiative. It should be noted that this initiative is not without its challenges, some of the most obvious being:

- How would labs be compensated financially for testing services performed for other States;
- How would method parameters (DLs, TATs, costs, testing priorities) be determined;
- How would cross State testing be administered given the difference between State regulations and governments;

- What would happen in the event that results were used for prosecution in another State and the implication on providing evidence and expert witnesses.

While the challenges above appear large, it is believed that the benefits of such a multi-State network outweigh the logistical difficulties.

The team that provided input to this concept paper has identified a preliminary list of feed test methods that could be candidates for the Centres of Excellence concept. These are:

- multi-analyte pesticide method by LC-MS/MS and/or GC-MS/MS
- multi-analyte mycotoxin confirmation method by LC-MS/MS
- low-level mercury analysis
- dioxin & furan determination
- veterinary drugs at residue and formulation levels
- mineral availability, chelated mineral determination
- sugar profile
- veterinary drug analysis by plate assay techniques
- amino acid profile
- microscopy
- selenium
- B vitamins
- fat-soluble vitamins (E & D)
- prohibited materials

Administering the network could be done through a website whereby States list their testing capabilities, methods used, accreditation body, PT programs, cost per test, as well as a technical contact. Then each State manages their own information and coordinates the testing for their State within the network. In addition, this feed lab testing network could be incorporated into existing networks already in place, such as FERN.

For consideration to the AAFCO BOD

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