Sampling for Defensible Decisions: Michigan Department of Agriculture and Rural Development Pilot

Guidance on Obtaining Defensible Samples (*GOODSamples*)

In July 2017 the Michigan Department of Agriculture and Rural Development hosted a four-day training for food and feed safety professionals. The training was attended by 16 staff members from five different divisions in the department plus one staff member from Indiana's Rapid Response Team. The attendees represented:

- inspectors and field staff,
- compliance officers,
- laboratory analysts, and
- supervisors and managers.

The Michigan Department of Agriculture and Rural Development offered the *GOODSamples* training pilot to improve its effectiveness in developing sampling protocols for use during emergency response and routine monitoring, to use available resources more effectively and provide more defensible data for decision making.

> ***I believe more trainings like this should be available or even required by any inspector who would be taking samples as part of their job. —Brent Wolschlager***

The department also wanted to use this training to better align its sampling protocols across its divisions, to create more consistent protocols based

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on *GOODSamples* principles. As a result, most of the divisions have either already applied the concepts they learned to address a current issue or are in the process of implementing changes in their sampling protocols.

> ***I thought the training was great, and while I left exhausted, I am inspired to propose improvements, work in committee and to rewrite our SOPs. —Jennifer Reay***

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I gained a LOT more (from the training) than I expected. I have more questions than when I started, and I'm thinking more about what we do. —Shawn Lee

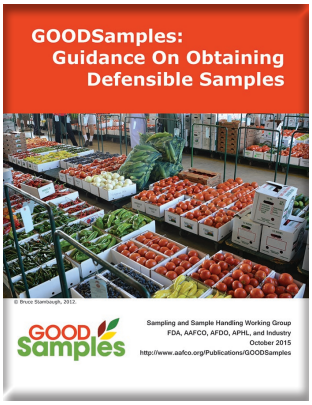
The following are examples of implemented or planned changes:

- The Laboratory Division's Food, Fuel, and Diseases section plans to apply this training by more closely monitoring particle size after grinding and regrinding samples with a smaller screen if necessary to achieve a more uniform particle size. In this way, it hopes to increase confidence in analytic results by reducing laboratory sampling errors.
- The Food and Dairy Division is updating current environmental sampling protocols for food plants. The revised protocols identify the decision unit, and the mass and number of increments needed to obtain the desired confidence in the analytical results.
- The Pesticide and Plant Pest Management Division is initiating internal discussions regarding review of their existing protocols for the following:
  - » training staff on the importance of and how to perform random sampling of feed products,
  - » training staff to identify decision unit(s),
  - » evaluating all errors from selection of the primary sample through selection of test portion,
  - » evaluating options to sample a product while it is in motion to obtain a more representative sample, and
  - » evaluating violations based on how well the analytical results achieve the Sample Quality Criteria (the question, the decision unit, the analyte, the confidence).

I wasn't sure what to expect, but I feel like I have a much better understanding of how to collect a sample that is an accurate representation and defensible. —Eric McCumber

Outcomes of the Michigan Pilot Project

Staff from the Pesticide and Plant Pest Management Division in collaboration with the RRT Toxicologist used the information to more efficiently and critically evaluate a protocol submitted by a firm for sampling potentially contaminated grain in a large silo. Staff took the concepts and applied them to quickly determine that the proposed protocol would be inadequate for determining the extent of potential contamination that could pose a public health risk, depending on the intended use of the product. Ultimately, the division felt confident in rejecting the firms' protocol and it's requirement for the firm to submit a new protocol.



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