Guidance on Obtaining Defensible Samples (GOODSamples) Training – MN Pilot

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MN Pilot Overview

• Why we wanted to participate in the pilot
• How the pilot training was orchestrated
• Pilot highlights and considerations
• Design for Misuse Investigations
GOODSamples

- Guidance document and training funded via FDA Cooperative Agreement
- Published Oct. 2015
- Call for pilot participants in December 2015 RRT Weekly Digest

http://www.aafco.org/Publications/GOODSamples
MN Interest in the Pilot

Recently presented with several sampling challenges:

• Pesticide misuse
• Finished product sampling after environmental positives

Is there a better way?
Involve All Sampling “Stakeholders”

- Inspectors/Field Staff collecting the samples
- Laboratorians preparing & analyzing samples
- Compliance officers
- Supervisors & Management making decisions:
  - Resources to conduct sampling
    • People, time, supplies
  - Regulatory actions based on results
Pilot Highlights & Considerations

• Not a training that tells you all the answers
• Provides tools and questions to devise a plan that suits your needs
• Understand the degree of confidence in the analytical result
Pesticide Misuse Investigations

• MDA Investigates Pesticide “Misuse”
  – Misapplication
  – Drift
• Two considerations:
  – Establish that misuse occurred
  – Determine food safety risks
Pesticide Misuse Investigations

- Pesticide Fertilizer Management Division
  - Did misapplication or drift occur?
- Food and Feed Safety Division
  - Are there food safety risks associated with the misuse?
Pesticide Misuse Investigations

• Challenges
  – How do you effectively characterize a 20, 40 or 80 acre field that may be impacted?

• Previous approach
  – Use samples collected by pesticide division shortly after the drift or misuse to characterize food safety
  – Typically collected within 25 feet of “visible damage”
Pesticide Misuse Investigations

• Problems
  – Temporal association
    • Samples may have been collected months before harvest
  – Detection Limits
    • Ability to identify pesticides far lower than 10 ppb
  – Drift or misuse may extend far beyond visible damage
    • “Blanks” collected from the edge of the fields often (+)
Pesticide Misuse Investigations

• GOODSamples approach
  – Define the decision unit
  – What are we concerned about?
    • Ear of corn?
    • Row of corn?
    • Entire “field”?
  – When do we take the samples?
Pesticide Misuse Investigations

• Decision Unit
  – In most cases we’re concerned with the “field”
  – Can it be harvested?
  – Who will sample?
  – How many samples?
# Pesticide Misuse Investigations

Mean Concentration of field = 32
Violation if greater than 30
If Sample Size = 50 then detect violation 71% of the time
If Sample Size = 5 then detect violation 56% of the time
Pesticide Misuse Investigations

- Decision Unit = Field
- Sample Size = 50 samples (composited)
- Samples collected prior to introduction of the raw agricultural commodity into commerce (40 CFR 180)
Pesticide Misuse Investigations

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- Sample Size = 50 samples (composited)
- Samples collected prior to introduction of the raw agricultural commodity into commerce (40 CFR 180)
Questions?

“The bone is not the reward – digging for the bone is the reward.”