UPDATE: LOGISTICAL CONSIDERATIONS FOR TESTING BULK TANK MILK SAMPLES (BTMS) DURING AN ANIMAL HEALTH OR FOOD SAFETY EMERGENCY IN CALIFORNIA

2011 USAHA Conference
Committee on Animal Emergency Management
Buffalo, NY; October 1, 2011

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BTMS TESTING DURING AN EMERGENCY – KEY ELEMENTS FOR SUCCESS

- **Rapidly** and **efficiently obtain** a bulk tank milk sample (BTMS) from **each farm** in the area of concern during a response to an animal health or food safety threat,
- **identify the sample,**
- **securely transport** the sample to the lab,
- **link sample ID in both lab & response databases,**
- **test** and **report out** results in a **timely manner.**
Logistical Elements of BTMS Collection -- Authority; What, Where, Whom, and How

- Regulatory Authority – CA FAC #32731
- What: collection of Bulk Tank Milk Samples
- Where: 3 options for obtaining samples
  - 1. **On-farm bulk tanks** – 3-6 samples routinely collected per pick-up
  - 2. At the **milk processing facility** if requested by CDFA.
  - 3. From commercial milk quality/ chemistry labs
- By Whom:
  - 1. State and County Milk Inspectors, and
  - 2. 2700 California Licensed Milk Samplers and Weighers
    - Work as milk truck drivers, processing plant samplers
- How: Defined sampling protocols; chain of custody
Challenge: Multiple Label Systems and Farm Premise ID Codes

Pre-printed; barcode; hand-written?

Diagnostic Lab requirements:
1. sample ID, premise, date
2. rapid = scan-able => bar code IDs

CDFA Emerging Threats Program:
ET software can interface w/ field and lab
Information: Farm Premise, Sample ID, Date
Mobile handheld + GPS for sampling
=> Barcode reader + Label printers
CDFA Emerging Threats (ET) System Sample Barcoding System (SBS)

2011: Milk and Dairy Food Safety (MDFS) Sampling Project funded as part of Emerging Threats system

=> CDFA inspectors will input premise ID # and date.
- Hand-held mobile unit w/ GPS, camera, printer
- Windows-7 compatible, synchronized with ET database
- Inspector can scan in pre-printed barcode ID#s; or
- Print bar-code ID# labels for samples in the field.
- CDFA emails list of sample ID#s to CAHFS laboratory.
  - Rapid accession of samples at CAHFS
  - Lab will scan in barcodes and verify sample ID#s
  - Lab will email results to CDFA for near real-time reporting
To summarize:

1. Utilization of routinely-collected bulk tank milk samples can provide a **low-cost, timely, and resource-sparing** opportunity during an emergency response.

2. Use of “smart” hardware/ software + barcode sample ID in the field will support **rapid and accurate** sample accession, processing, and reporting of results by the diagnostic laboratory.