

Traceability

A California Perspective



Dr. Richard Breitmeyer

Mr. Victor Velez

Dr. Anita Edmondson

California Department of Food and Agriculture

Introduction

- Animal Health/Disease Concerns
- Animal Movements of Interest
- Current Traceability Tools
- Traceability Gaps
- Recommendations



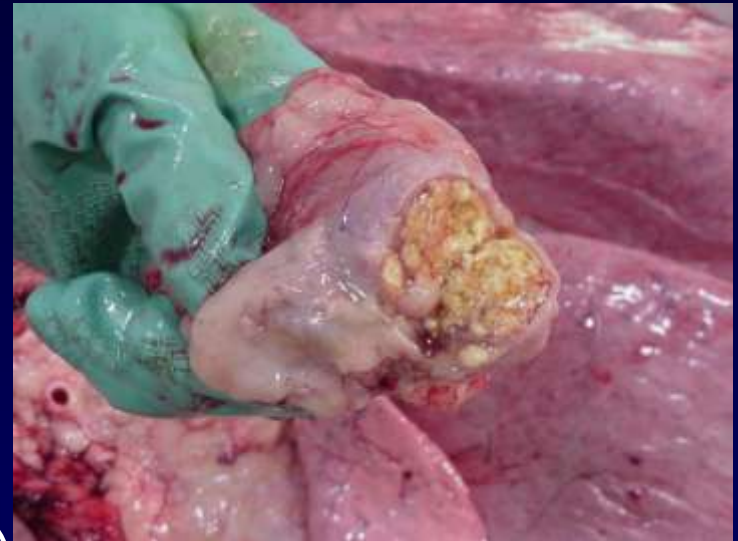
Animal Health Concerns (Focus on Disease Programs)



Cattle Diseases of Concern

Disease Programs Must Drive Traceability

- Bovine Tuberculosis (TB)**
- Bovine Brucellosis
- BSE (imports)
- Trichomonosis (priority in West)
- Foreign Animal Diseases (FAD)s
- Emerging Diseases (perhaps unknown today)

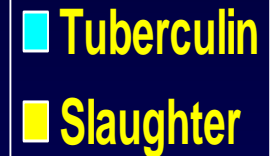
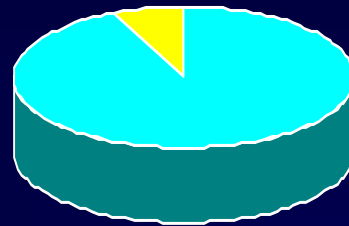


*****TB (etc.) cannot be eradicated without adequate traceability***

Finding Affected Cattle Herds - Live Animal vs. Slaughter Surveillance FY 1998–2009

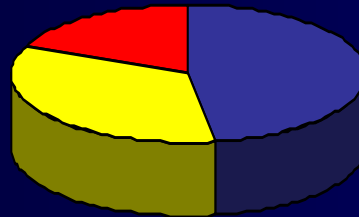
Michigan,
Minnesota (61)

(57 live, 4 slaughter)



Rest of U.S. (31)

(18 live, 13 slaughter,
and 7 slaughter no herd)



92 affected cattle herds

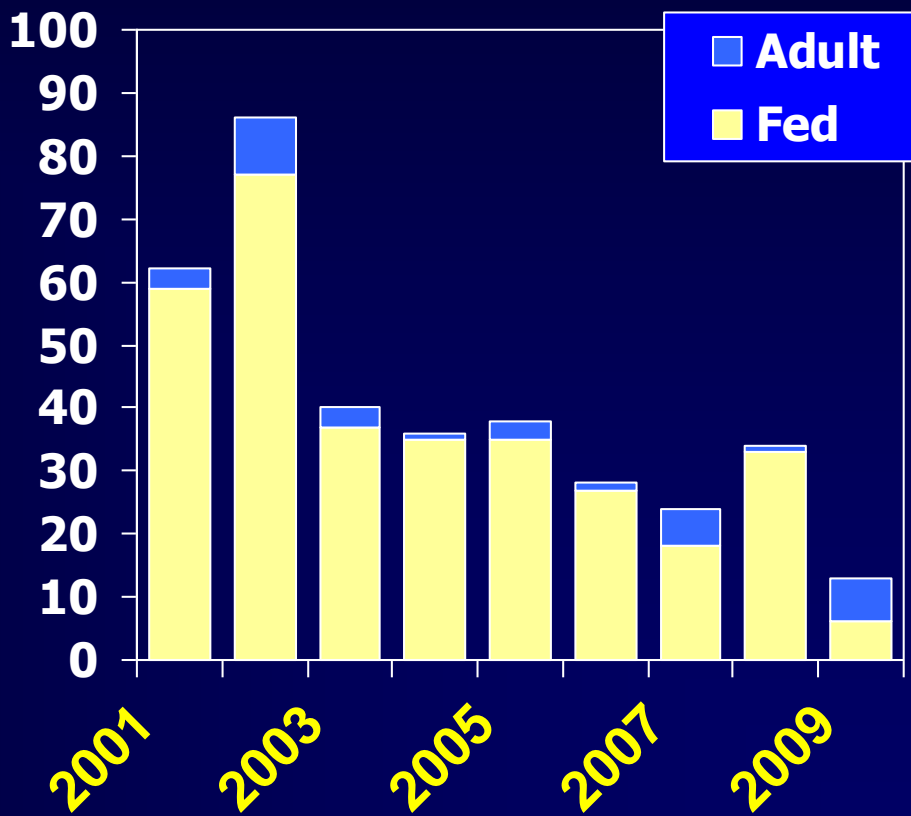
*No affected Herd detected = 7 adult slaughter cases from CA, TX, Neb, NM, SD

M. bovis Cattle From Slaughter Submissions 2001–2009

364 TB cases in 9 years!!



ID must be present and collected at slaughter!



Updated 8/7/2009

United States Tuberculosis Zone Status

US TB Status as of December 2009:

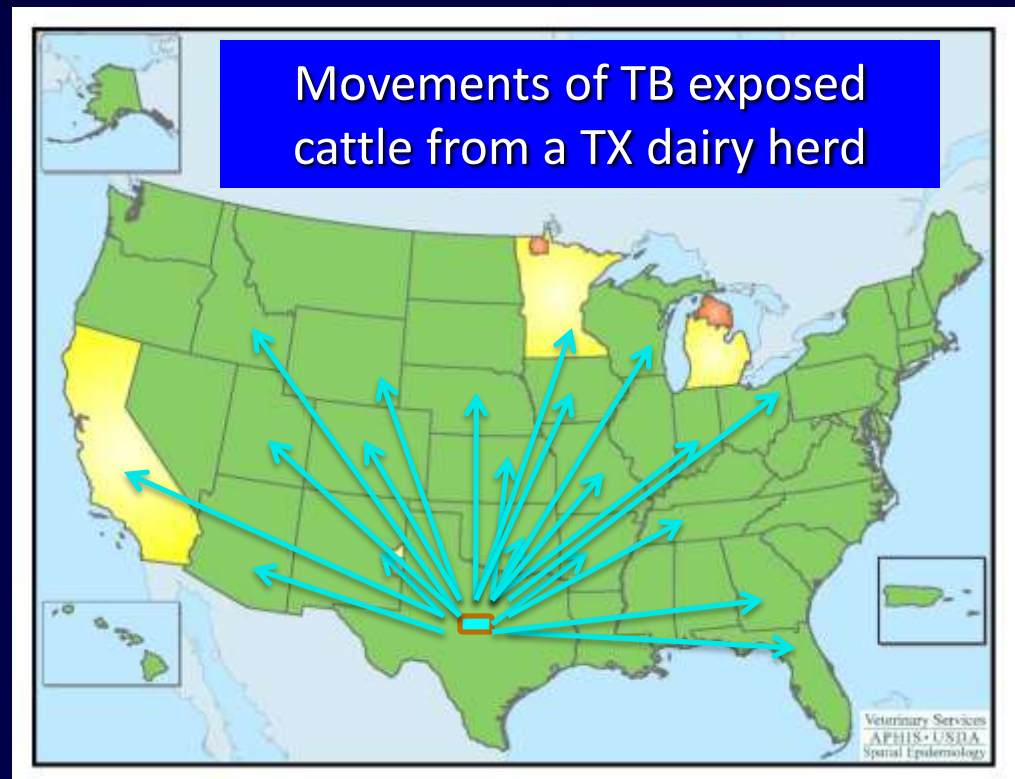
Accredited Free Modified Accredited Advance Modified Accredited



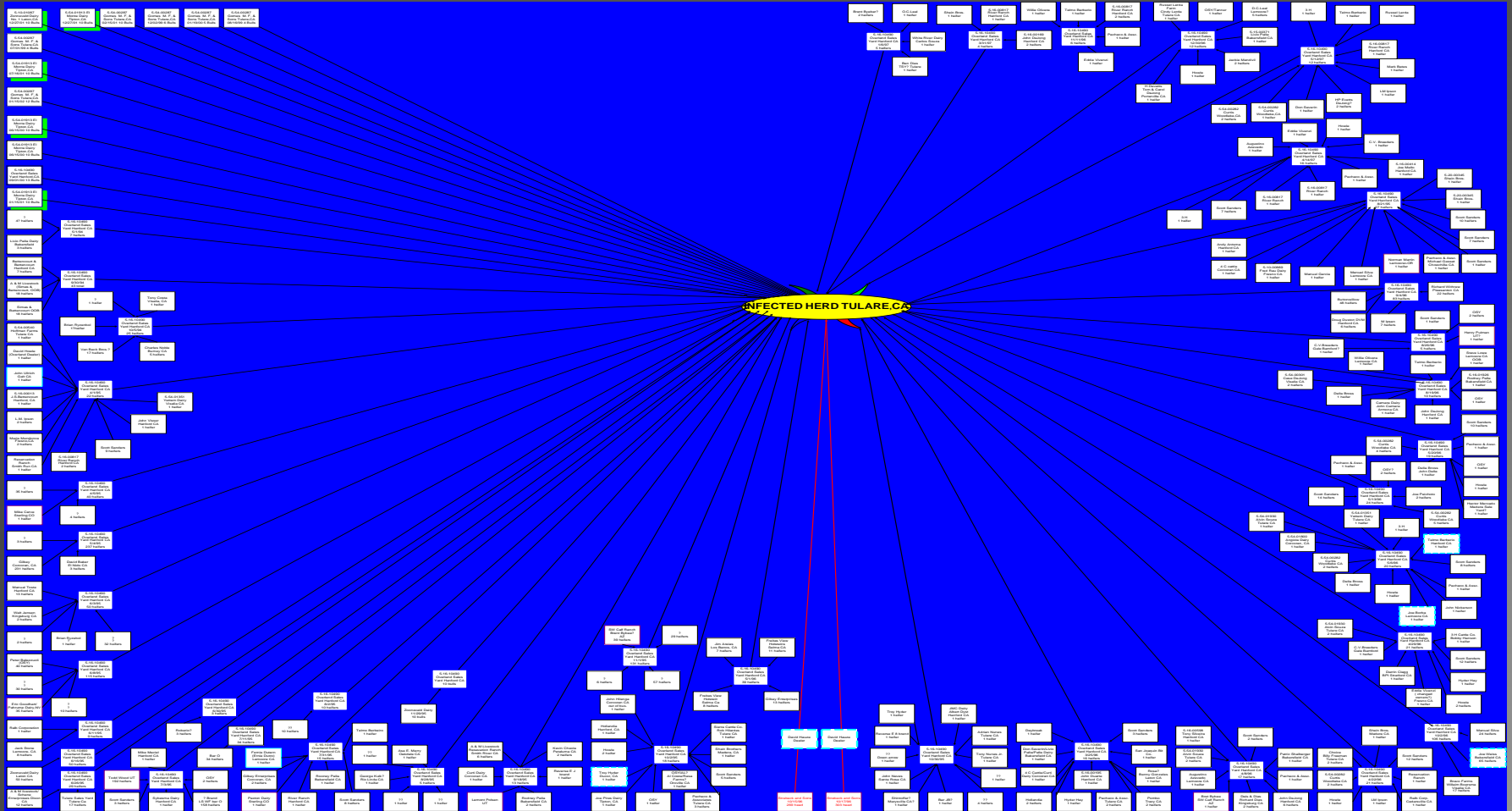
Texas – Ongoing Trace

Extensive TB Trace – not uncommon

- 5,208 exposed heifers
- 22 States +
- ~ 2,000 exposed heifers identified in herds (~ 38%)
- 75 herds and 131,798 cattle tested to date

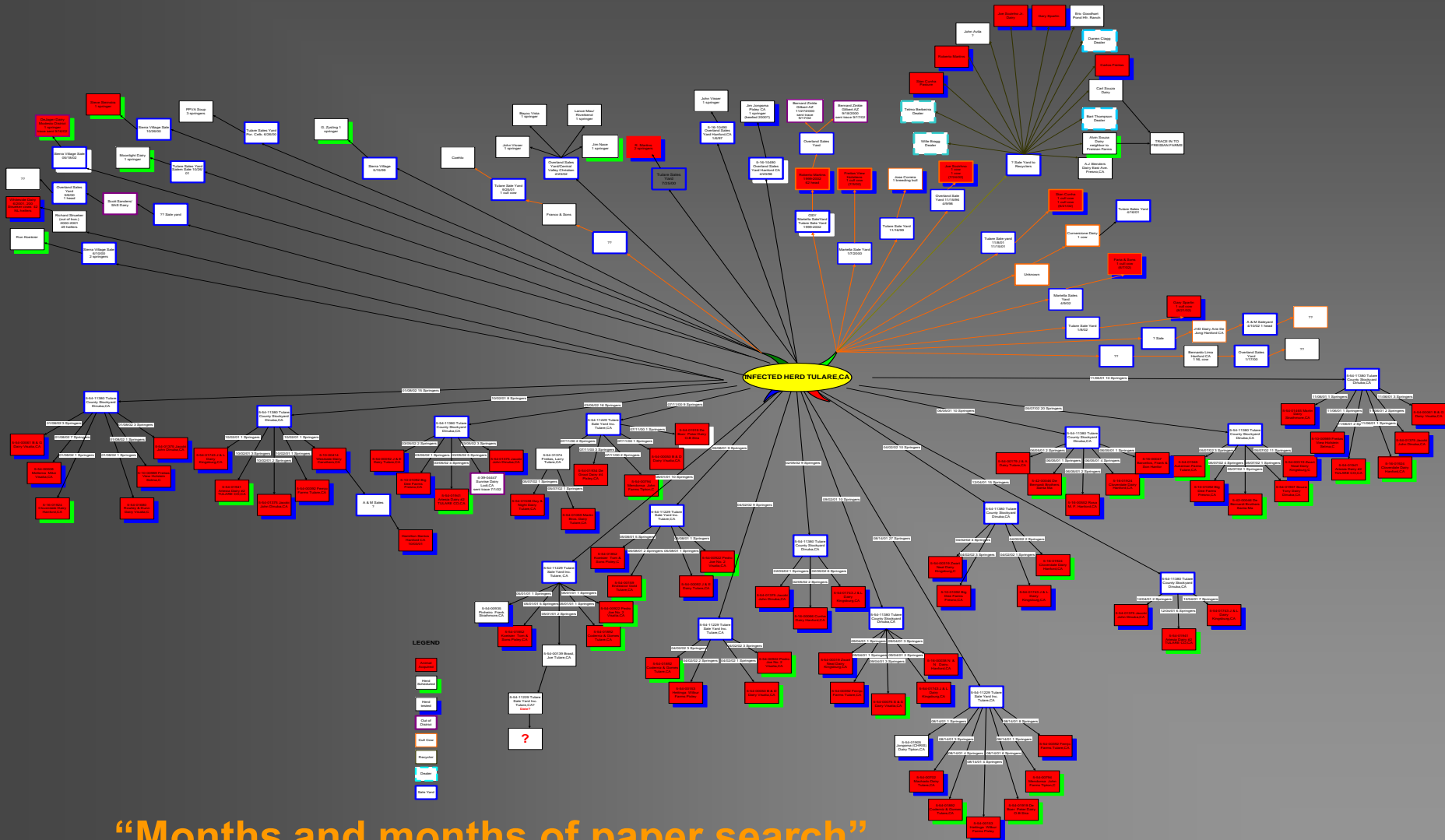


2002 TB - Trace Ins (Index Herd)



Huge workload and expenditures
– compounded by lack or poor animal identification & record keeping

2002 TB - Trace outs (Index Herd)



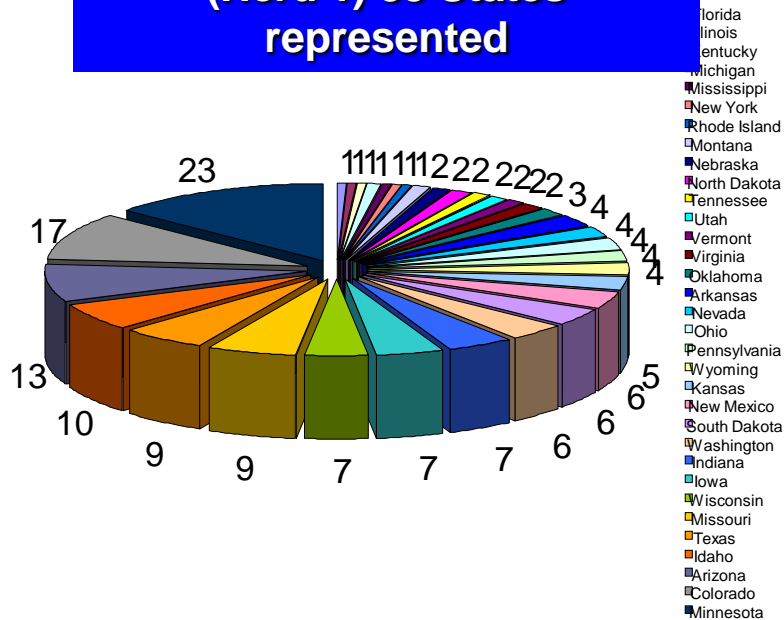
“Months and months of paper search”

Dr. Katie Flynn, CDFA Veterinarian

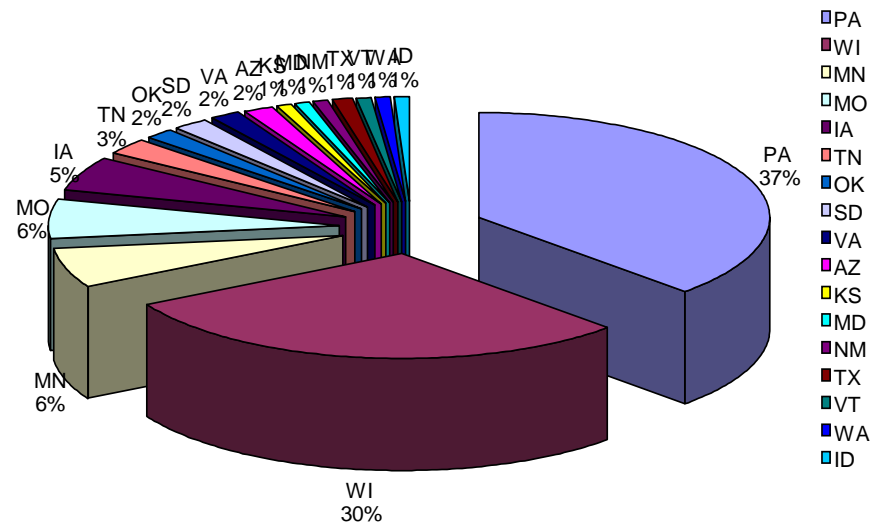
Cattle Found with a State Official ID

2002 Tuberculosis Traceback

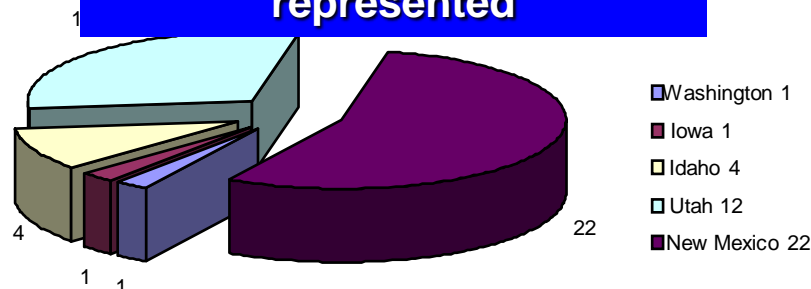
(Herd 1) 33 States represented



(Herd 2) 22 States represented



(Herd 3) 5 States represented



2009 Trace Ins - Dairy 1



2009 Trace outs - Dairy 1



2009 California TB Event

- 4 affected herds
- 8 infected cows, three different strains
- ~659 traces of ~21,000 cattle
- Tested ~254 herds (310 tests),
~419,000 cattle to date



TB Testing and RFID

- Provided over 400,000 RFIDs
- Well received by producers
- Enhanced accuracy and decrease testing time during retests
- Collected RFID information for over 3,500 suspect animals at slaughter plant (able to quickly reconcile data)



Accuracy, labor, speed, safety



Mistakes (transposing numbers) common when visually reading official ID.

Animal Movements of Interest



International Movements – 2009

- Mexico (better ID than US if available?)
 - 55,700 imported into California (known)
 - Cattle graze with or near domestic cattle in Central and Southern California
 - May change ownership numerous times before moving to feedlot or slaughter
- Canada
 - Less than 600 dairy
 - Beef ~ 200 direct to slaughter



Interstate - 2009

- **39,597** shipments (border reports)
 - **17,115,271** animals
- **4,247** permits issued
 - **385,243** animals
 - Required for most cattle, sheep, goats, swine, waterfowl, bison



2009 Animals Entering CA Through CDFA Exclusion Border Stations

Species	# of Head Imported
Beef	830,281
Dairy	37,110
Swine	2,567,653
Sheep	254,078
Goats	51,262
Horses	51,775
Poultry	11,892,884
Hatching Eggs	1,381,256 cases

39,597 Shipments

2009 Livestock Entry Permits

Species	Permits	# of Head
Dairy	868	49,558
Beef (including Slaughter)	1871	85,748
Sheep	534	66,976
Goats	465	16,888
Swine	488	165,871
Waterfowl	1	7
Bison/Buffalo/Yaks	20	195
Total	4,247	385,243

From 45 states and 2 foreign country

Current Traceability Tools



MINISTRY OF AGRICULTURE

CONSIGNOR NAME AND ADDRESS SHAGVALE KOLSTEINS 10119 FAULTDALE RD SEDDO-WOLLEY, WA 98284 ORIGIN ADDRESS (IF DIFFERENT THAN ABOVE)	
PURPOSE OF MOVEMENT: <input type="checkbox"/> BREEDING <input type="checkbox"/> SLAUGHTER <input type="checkbox"/> FEEDING <input checked="" type="checkbox"/> EXHIBITION, ETC.	
SPECIES: <input checked="" type="checkbox"/> CATTLE <input type="checkbox"/> HORSES <input type="checkbox"/> SHEEP <input type="checkbox"/> SWINE <input type="checkbox"/> POULTRY <input type="checkbox"/> OTHER	
ORIGIN OF SHIPMENT A) County: SHAGIT B) Market:	

Traceability Tools (Official ID)

- Brucellosis Vaccination tag (“Bangs tag”)

- California requires all heifers to be vaccinated including those imported from other states
- Often only ID at slaughter for intrastate movement



- USDA Silver “bright” tag

- Often the only official id on interstate movement
- Used during TB and Brucellosis testing for animals without an official ID



- Cheap/easy to place, but expensive/difficult to read and record

Traceability Tools - Official ID

- Canada and Mexican official ID
 - Sometimes the ID is removed so unable to trace it to a State/Province
- Brands
 - As a supplemental ID has helped tracing animals when other ID is not present
 - Removed at slaughter
 - Not unique
 - Only 14 Brand States



Traceability Tools - Records

- Brucellosis vaccination
 - Over 800,000 heifers/year
 - 90 % dairy
 - CDFA – State database and manages distribution of tags
- Interstate Certificates of Veterinary Inspection (CVIs)
 - 18,202 received and reviewed from other States
 - 596,549 animals
 - Most in paper format (1-2% e-cert for cattle)
 - Not currently in data base
- International Certificates
 - Via specific request to USDA

Please print information
STATE OF CALIFORNIA
Department of Food and Agriculture
Animal Health Branch
769345

REPORT OF HEIFER CALVES VACCINATED-BRUCELLOSIS

DISTRICT COUNTY PREMIER'S ID NEW TAGS
OWNER'S LAST NAME FIRST NAME CITY STATE
PHONE MAILING ADDRESS (if different from above) DATE OF VACCINATION
MONTHS DAY YEAR
NUMBER OF CALVES VACCINATED TOTAL YES NO
DAIRY BEEF
VACCINE MANUFACTURER VACCINE SERIAL NO. EXPIRATION DATE OF VACCINE
MONTH YEAR
TAG NUMBERS APPLIED
1400

Traceability Tools - Records

- Brand records
 - Document many intrastate movements and some interstate
 - Most records in paper format
- Permits
 - Record location of origin and destination
 - Only interstate and some international
- Private testing for official programs
 - Performed by accredited veterinarians
- Saleyards consignments



Traceability Gaps



Traceability Gaps

- New approach to Brucellosis
 - With first point testing discontinued, fewer cattle identified
- Fewer states require brucellosis vaccination
 - Many females no longer have an official ID
- Movement records do not exist for some animals
 - Mexican and Canadian imports after entry
 - Some TB reactors found at slaughter have a Mexican ID but no records of movement in the US
 - Removal of official ID is a concern

Traceability Gaps

- Some practitioners retag animal rather than recording existing tags
- Many dealers/traders do not maintain adequate records
- Most official records are in paper format – not in data base
 - CVIs
 - Brand Inspections
 - Official Tests
- Saleyard consignments are in paper format



1 2 3 4

Traceability Gaps

- Exhibitions (provide outreach opportunities)
 - 14,000 youth participate in 4-H projects (CA)
 - Jackpots
 - No records
- Lack of standards across states
 - Multiple official IDs and location identifiers
- Some groups of cattle will never have an official ID or require movement records
 - Concern for long incubating diseases such as BSE
 - Discussion needed – is cost worth benefit???



Traceability Gaps

An example of economic impact...

The Bovine Tuberculosis (TB) episode of 2002 illustrated the value added of effective traceability.

Staff at CDFA re-evaluated costs of the TB episode under the scenario that testing was restricted to herds that were traced as opposed to an “area test” .

Reducing the number of herds tested from 688 herds (area testing) to 129 herds (trace) could reduce costs to the government by \$880,000 (CDFA costs \$505,000, USDA costs \$375,000). Plus PRODUCER COSTS!

Scrapie Program and ID

Broad Industry Support

- Successful
- Simple
- Different types of ID
- Minimal cost



Other Issues

- Food Safety and Drug Residues
 - Lack of identification is a problem
 - FSIS now enforcing residue HACCP and penalizing plants – plants must respond
 - If untraceable may impact producers ability to sell
- USDA and FDA reaching out to states to help

Recommendations



Process

- Identify and prioritize traceability needs for existing disease programs
- Identify current traceability tools that are effective
- Identify gaps
- Fill gaps
- Provide appropriate message/justification

Specific Recommendations - Example

Identify/Prioritize Traceability Needs for Existing Disease Program – TB Program

- Bovine TB – perhaps highest priority for cattle
 - Can justify national ID requirements/50 state participation
- Identify existing effective traceability tools
 - Brucellosis tags, silver brights, RFID, etc.
 - Accept all, but promote advantages (RFID)
- Identify high risk animals that need to be identified
 - Breeding animals
 - Imports
 - Rodeo/Event cattle

Specific Recommendations - Example

Identify/Prioritize Traceability Needs for Existing Disease Program – TB Program

- Identify those high risk movements/events to capture data
 - Movement from herd of origin (intra or interstate)
 - Vaccination
 - Interstate movement
 - Testing for movement, investigation, sale, etc.
 - Collection of ID at slaughter (needs investment)

Specific Recommendations - Example

Identify/Prioritize Traceability Needs for Existing Disease Program – TB Program

- Record keeping
 - Support data base needs in each state
 - Link to existing programs
 - Ensure standards among states
 - Strive for more automation over time (electronic CVIs, etc.)
- Demonstrate to producers and other stakeholders why animal disease traceability is needed to eliminate TB)

