

# Sheep Working Group Report



# The Sheep Report...

- Supports continuing with the existing mandatory ID requirements of the National Scrapie Eradication Program.
- Defines premises relative to how we manage sheep.
- Defines what animal movements should be tracked (event protocols).
- With regards to ID Devices- defines what is effective, affordable, distribution system
- Suggest timetable for implementation.
- Develops budget including gov't-industry cost-sharing ratio.
- Encourages multi-environment sheep RFID research in the USA. While keeping in mind other countries with larger sheep populations are also doing research and contact should be maintained.

# Phase I

- Continue with the existing mandatory ID requirements of the National Scrapie Eradication Program
  - Evolve this program rather than 'starting over', key for producer participation.
  - Most complete federal ID system in existence for any species.
  - Recognizes that no purely visual ID system will achieve final tracking goal (48 hours). However no proven RFID tracking system for small ruminants yet exists in the world.

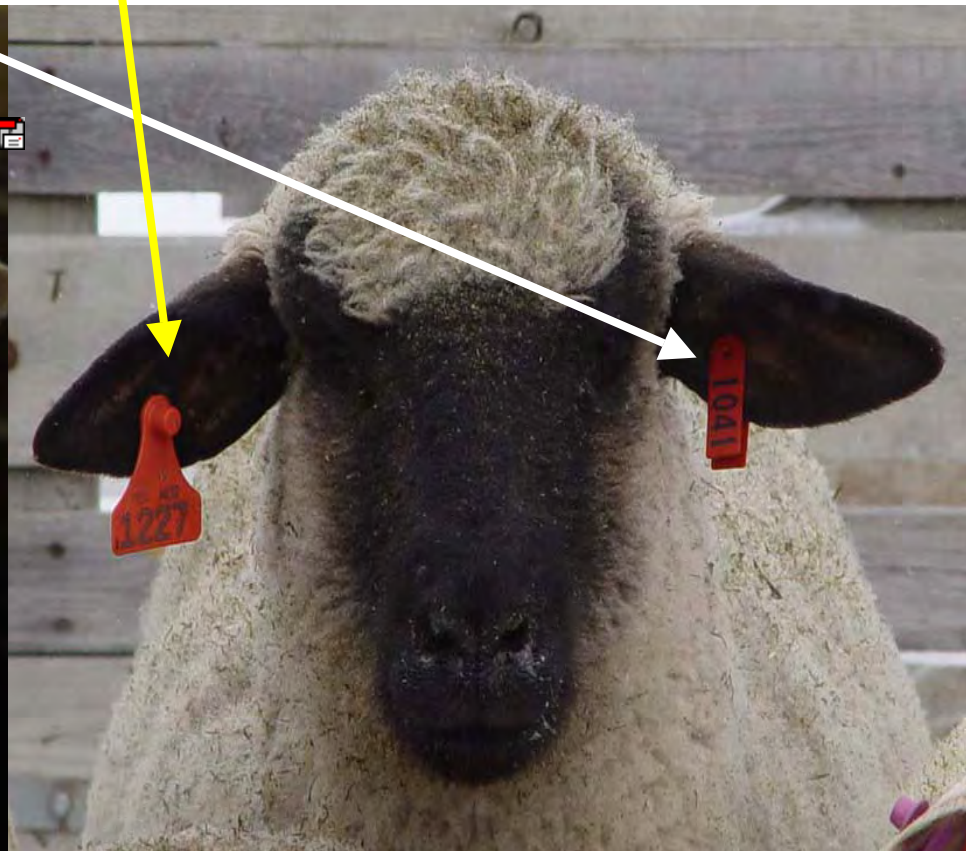
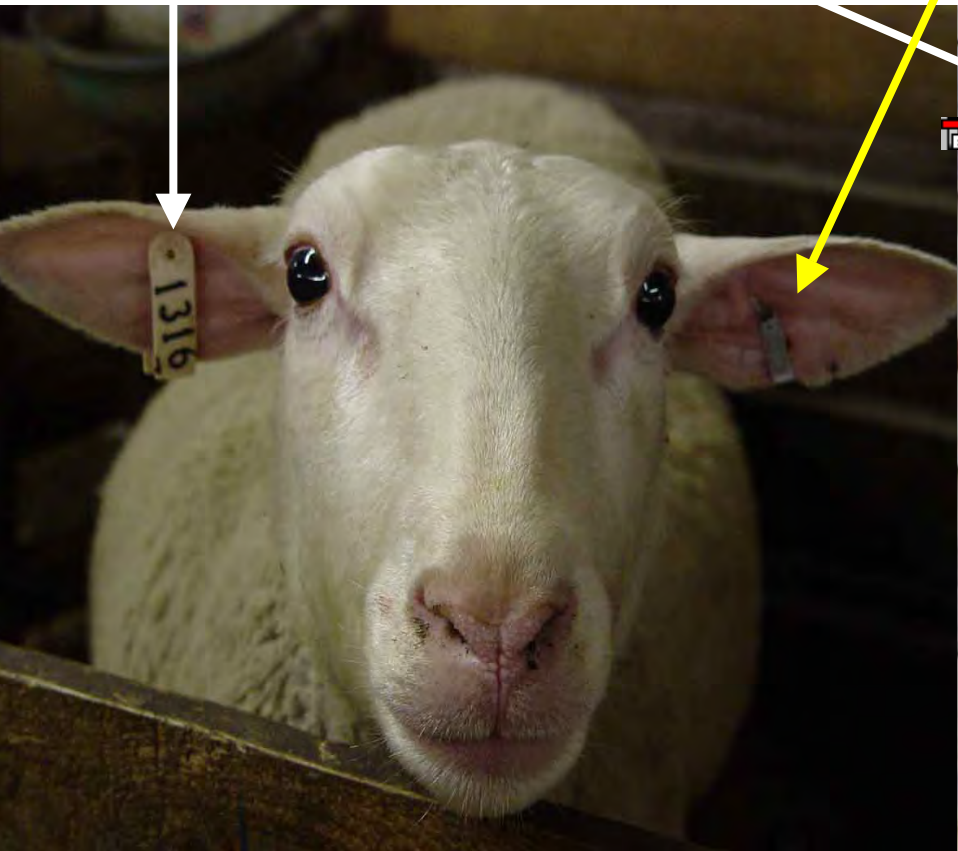
Continue existing mandatory and voluntary visual scrapie ID programs as currently structured with:

- Premises ID using visual tags (metal and polyurethane) as well as individual animal ID;
- Orders placed electronically or by phone to the state VS or state vet's office and electronically transmitted to the tag manufacturer, and
- Payment made by APHIS.
- Continuation for another two years is desired to provide a sense of stability and continuity to the sheep industry after the last 3 years of ID changes.

# Official ear tags approved in the USDA-APHIS Scrapie Eradication Program

Flock management tags  
(not official #)

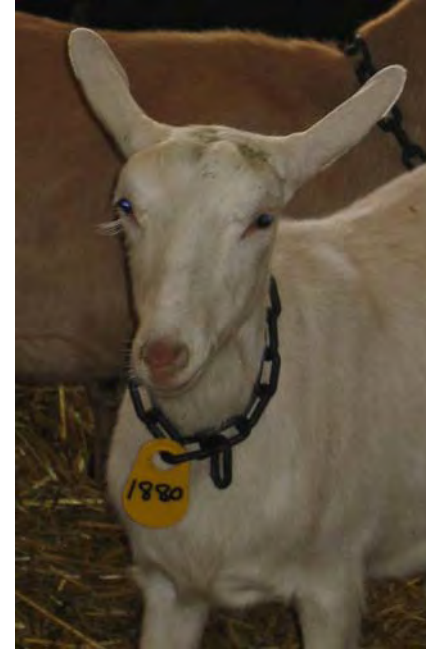
Official USDA tags



# Goat ID



# Sheep & Goat ID





# Premises Definition

The premises is the ground, area, buildings and equipment occupied by, or used for, one or more flocks of animals. The premises is defined by the physical address of the headquarters of the owner/operator of the operation. When an owner registers a premises, where the flock's annual grazing plan includes public lands or rented lands and where there is an opportunity to commingle, then those properties are specified at the time of registration. It is the owner's responsibility to keep such information current. (adapted from USDA Scrapie program)

# Event Protocols

- Recognize the different needs of range flock operators, farm flock operators, lamb feedlot operators, purebred flock operators, dealers, markets, exhibitions
- Animal tracking only required when commingling occurs – closely follows current scrapie regulations, but closes scientifically unsound loopholes

# Event Protocols

- Individual ID and movement recording mandated when sheep commingle, i.e., move in commerce or are exhibited intra- and interstate.
- Interstate movement exemptions:
  - Movement for grazing w/o change of ownership
  - Finished lambs where Group IDed when move to slaughter



# Event Protocols

- The sheep industry recognizes that exhibitions are currently a high-risk activity for disease transmission. Such events should immediately begin enforcing compliance regarding ID and tracking.



# Tracking

- In reality the best system will depend on both the seller and buyer participating in tracking. The challenge is to not mandate the animal tracking until the system is proven to be both workable and affordable.



# Dynamic Groups

A Dynamic Group includes sheep that are in a continuous-flow production system where animals move in and out. A sheep can exist in only one dynamic group in a lifetime without an individual ID. Sheep that leave dynamic groups can either enter a static group or move to slaughter.

- Example of a dynamic group include a lamb feedlot where groups of feeder animals enter a continuous flow feeding system destined for slaughter. The lamb feeder is responsible for maintaining the records to show the origin of the lambs.

# Static Groups

A Static Group includes a definable number of animals that are assembled and maintained for a definable period of time and are normally part of an “all in-all out” system. They remain intact as a group and may move from premises to premises. Sheep may move from a static group to a dynamic group within the same production system or to slaughter without individual ID. Static groups can be combined to form a new static group in an “all in-all out” system.

- Example of a static group would include a flock of ewes along with their lambs that reside and/or graze within a production system under single ownership.

# ID distribution system

- Recommend continue with current ID device distribution system.
- Orders placed electronically or telephone via the state VS office and electronically transmitted to the tag manufacturer, and
- Payment made by APHIS.
- For the sheep industry to accept changes to a national ID plan, some costs for infrastructure development and function (state database, readers at markets, etc.) will need to be borne by government or industry will be negatively affected.

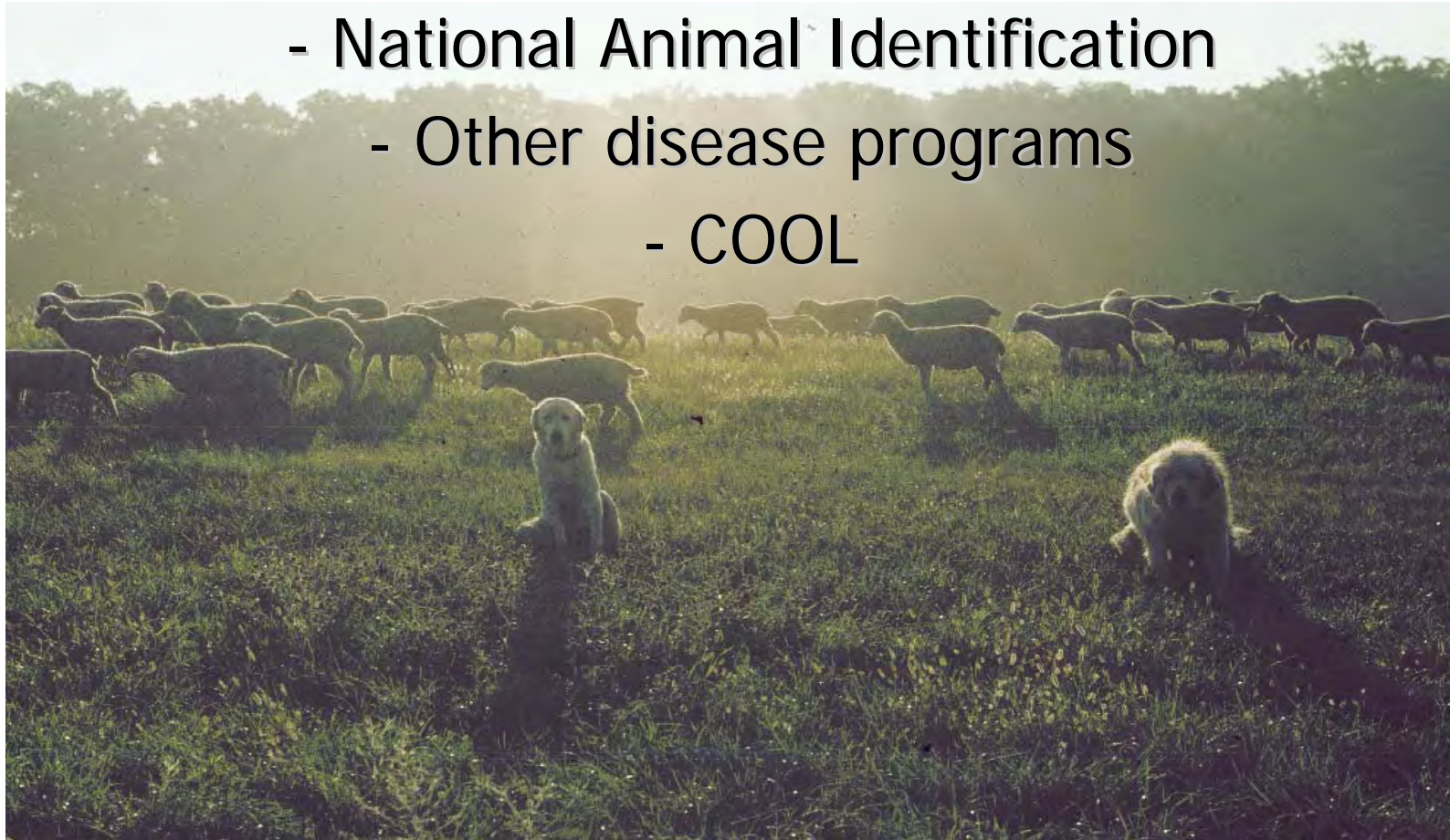
The sheep industry desires that the National Animal Identification System works for ALL required identification programs such as

- Scrapie

- National Animal Identification

- Other disease programs

- COOL



# Research and Field Testing: Concurrent with Phase I

- Field performance evaluation of components of RFID sheep tracking system.
- APHIS, with assistance from commercial component sources, has been asked to fund this 24-month comparative study.
  - Components: tags, boluses, static antenna/readers, hand readers
  - Typical environments to be evaluated: range and farm flocks, humid and arid climates, temperature extremes, large and small flocks.
  - Third party evaluation.

## Overall Goal

To identify a set of components that will both work and be seen to work in the current environments (farm, range, feedlot/pastures, auction markets, commercial transport, slaughter plant)—and do so without unduly interfering with the normal movement of animals around the USA.

Lessons learned the hard way from mandatory ID, i.e., what NOT to aspire to...





Pilot projects will help avoid this scenario



# Tagging lambs



# Tagging a ewe



# Information from Research

- Tag loss rates/interaction with environment and other factors
- Infection percentage
- Best application of RFIDs
  - When, where and how?
- Tag reading percentage
- Throughput rates
- Strategy for non-readable ID at farms and markets

# Issues to be examined

- Reader durability
- Reader ability to read RFID devices of multiple designs & technologies
- Impact on animal flow
- Effect of variable animal size
- Effect of speed of animal movement
- Ease of rapid repair/replacement of system parts
- Impact of on-site electrical interference



# Issues to be examined

- User acceptability and friendliness of ID devices
  - Ease/speed of installation
  - User evaluation of applicator comfort
  - Breed ear size
- Assess need for accompanying visual ID

# Issues to be examined

- User acceptability of reader/antennas
  - Auction markets
  - Loading/unloading facilities
  - On farm
  - Entry point to slaughter plants
  - Shows/fair

# Electronic Tags/Chips



# Study Design

- Five or more locations in different regions of USA with one lead site to collect, summarize and analyze findings.
- Commercial sources to supply up to 500 tags/boluses of each design
- Start date July 2004
- End date July 2006
- Quarterly progress reports

# Sheep ID Plan

## Phase II

- Change over to RFID – target date October 2006
- Decide Q. need for accompanying visual ID printed on the RFID
- Funding of system (readers, RFID, retrofitting of markets/slaughter plants)
- Group ID permitted when sheep move as a unit

# Sheep ID Plan

## Phase III

- Mandatory electronic reporting of specified animal movements target date July 2008

# Sheep Report

**Phase I**

**July 2004**

**Phase II**

**July  
2006**

**Phase**

**III**

**July  
2008**



# Sheep Report

Refine visual  
ID used in  
the Scrapie  
Program and  
Comparative  
Field Trial

Phase in  
proven  
electronic  
technology

Mandatory  
electronic  
tracking

# Challenges

- Producers continually question the need for national ID program relative to the cost of administering and participating.
- Frequent question-Will the NAIS really shorten the time farms, etc. are quarantined if a FAD is diagnosed?
- Sheep specific (sheep are not small cows!)

# Sheep ID Working Group

## represents all facets of the industry

- Bill Brennan
- John Cargile
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- David Greene
- Neil Hammerschmidt
- Lyndon Irwin
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- Chuck Palmer
- Stan Poe, Sr.
- Stan Potratz
- Paul Rodgers
- Rob Rule
- Bill Salina
- Bill Seals
- Sandy Snider
- Diane Sutton
- Cindy Wolf, chair
- Linda Campbell, goat comm. chair