

A Blueprint for Identification

As the livestock industry moves toward a national animal identification system, more than 30 livestock organizations have already formulated a work plan of how they want the system to function.

by *Kindra Gordon*

For years, the U.S. livestock industry has been rumbling about implementing a national animal identification (ID) system. And now, with the impending country-of-origin labeling (COOL) legislation outlined in the 2002 Farm Bill, many predict the United States is closer than ever to a national animal ID system.

In addition to COOL, national animal ID also has taken a top priority because of homeland security and the threat of foreign animal diseases being introduced. Staunch supporters say this is the primary reason national ID is needed.

"Animal disease surveillance and monitoring should be the driving force for ID in this country," says Gary Wilson, chair of the National Cattlemen's Beef Association's (NCBA) Cattle Health and Well-Being Committee.

"Looking at the worst-case scenario of the introduction of a foreign animal disease into the U.S., the first step of response is that all livestock movement stops until the disease can be traced to its origin. With today's system, that could take weeks. That emphasizes the need for a system to monitor animal movement and to allow for 48-hour traceback detection," adds Wilson, who raises Angus cattle in Ohio.

Proponents say another benefit from individual ID is that it will provide producers with information for true value-based marketing and genetic progress among their herds.

Building a plan

Regardless of the reasons prompting a national livestock ID system, the big question remains, "How might such a system work?"

To come up with answers, the U.S. livestock industry has taken a proactive stance and formed a 70-member task force representing more than 30 livestock organizations. Established last April, the National Food Animal Identification Task Force — coordinated by the National Institute for Animal Agriculture (NIAA) — was charged with developing a plan to identify the essential elements for a national ID system and methods to implement the plan in a timely, cost-effective manner.

The result of this think tank was the National Identification Work Plan, which was submitted to the U.S. Animal Health Association (USAHA) in October. USAHA, which advises the U.S. Department of Agriculture (USDA) on livestock health and disease matters, accepted the work plan and has recommended that USDA-APHIS (Animal and Plant Health Inspection Service) use it as a guide for establishing a national animal ID system that will enhance

animal disease monitoring, surveillance, control and eradication in the United States. A refined plan is expected to be presented to the livestock industry by June 2003. Here's what the proposed plan calls for:

48-hour traceback

In formulating their plan, the National Food Animal Identification Task Force recognized that, in the event of a foreign animal disease occurrence in the United States, timely traceback of animals is the key to rapid recovery.

"We realized that a national ID system needs to allow for 48-hour traceback detection," says Wilson, who represented NCBA membership on the National Food Animal Identification Task Force. He recently has been appointed by APHIS to serve on the National Animal Identification Development Team Steering Committee that will review the currently proposed ID work plan.

With that 48-hour traceback goal, the task force came up with five standards to be implemented in three phases for a national ID system. The standards are:

1. National Premises Identification Number. This would assign a unique number across the entire United States to all production operations, markets, assembly points, exhibitions and processing plants. The unique ID would allow for the ability to associate an animal (or group of animals) with its location. The name of the entity, its owner and contact information as well as date activated, date discontinued and contact information for the herd veterinarian would be collected when the premise ID number is assigned.

Wilson points out that the proposed plan only calls for animals to have an ID tag when

there is a change in ownership of the livestock or if the animals travel across state lines.

Presently, an eight-character ID number consisting of the two-letter state postal code and six characters is being proposed. (Example: MN123456) The administration and management of the premises number and associated information would be the responsibility of each state's department of agriculture.

2. Individual Animal Numbering System. While premises ID allows for traceback to an animal's point of origin, the task force recognizes that individual animal ID is required to record a particular animal's movement to different production points. Thus, the task force agreed that a single national numbering system is imperative, reports Neil Hammerschmidt, who served as chairman of the National Food Animal Identification Task Force.

Realizing the 48-hour objective will require electronic ID, the task force recommended that the National ID system adopt the International Organization for Standardization (ISO) code structure for radio frequency as the standard for the United State's national individual animal numbering system.

Hammerschmidt points out that there are three primary reasons for recommending ISO numbers:

► They would be compatible with national numbering systems already established in other countries;

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Table 1: Three phases of implementation

PHASE 1	PHASE 2	PHASE 3		
Transition	Individual ID	Tracking		
Transition tag with premises ID or qualifying tag	Official ID tag with AIN	A. Electronic report interstate movements B. Electronic report interstate and intrastate movements		
(Target July 2004)	<table border="1"> <tr> <td>A. Visible ID</td> <td>B. RFID</td> </tr> </table> (A. Target July 2005) (B. Target July 2006)	A. Visible ID	B. RFID	(A. Target July 2005) (B. Target July 2006)
A. Visible ID	B. RFID			

► They would avoid duplication of existing numbers; and
 ► They would allow for the integration of radio frequency identification (RFID) technology while maintaining a single numbering system.

Called the Animal Identification Number (AIN), each individual number would be 15 digits, including three numeric characters for the country code (840 for the United States) and 12 numeric characters for the national number. (By using the 12 characters it is estimated it will take more than 5,000 years before any numbers are repeated.)

3. Group/Lot Identification Numbering System. The livestock industry will be allowed to use a group/lot ID instead of individual ID in cases where feeder pigs are assembled and managed as a group from that point forward.

Wilson says this will primarily apply to the swine industry and groups of feeder pigs, but he says, “It will be an option for everyone if they can show that a group of livestock will stay together through finishing.” For instance, some alliances that form a large group of calves that are then moved to a feedlot and harvested as one unit could be identified with the group system, he says. “But this will likely be a small percentage of beef cattle.”

The group ID number will consist of the National Premises ID of the location where the group was created and a six-digit number reflecting the date the group was created — MN123456100302, for example (last 6 digits reflect Oct. 3, 2002).

4. Identification Methods and Devices for Official Use in Livestock. The proposed system will also require that to officially identify an individual animal, the animal must have a visible identification (metal or plastic ear tags or tattoos) or an electronic device. Either method must have the animal’s national number printed on it, and

the tag may be used only one time.

5. Radio Frequency Identification of Animals. Eventually, the proposed national ID work plan calls for all animals to be identified utilizing electronic ID. “The goal of 48-hour traceback dictates that some form of electronic ID and data management are necessary components of the ID system,” Wilson says.

Currently, two international standards exist for radio frequency identification of animals. The first, ISO 11784, defines the code structure that was recommended as the national numbering system for both visible and RFID tags. The second standard, ISO 11785, defines the technical communication protocols.

Hammerschmidt says, “The task force recommends both standards be adopted in the national plan. This is critical to ensure an open market for the devices that evolve and that RFID readers can read RFID tags from various manufacturers.”

The plan calls for official RFID ear tags to be attached in the animal’s left ear. The country code and AIN must also be printed on the electronic tag.

Implemented in three phases

Given these five standards, the task force was also realistic in realizing that it’s a system that will require years to implement. Thus, they designed a three-phase plan for the livestock industry to adopt these methods.

But Hammerschmidt cautions, “While target dates have been proposed, the task force acknowledged that the timetable reflected an aggressive start-up date and that

such ‘benchmarks’ will need to be adjusted as the details are worked out.”

Phase 1, which is being called “Transition,” would be the first step toward national ID. The primary objective would be to implement the national premises system. At minimum, all animals would also be identified with tags bearing their premises ID number — the number reflecting their current location. The task force hopes to have this phase implemented by July 2004.

Phase 2 requires the use of individual ID on all cattle by July 2005. At minimum, cattle must have a visual tag with their AIN. But the task force recommends RFID tags be implemented by July 2006.

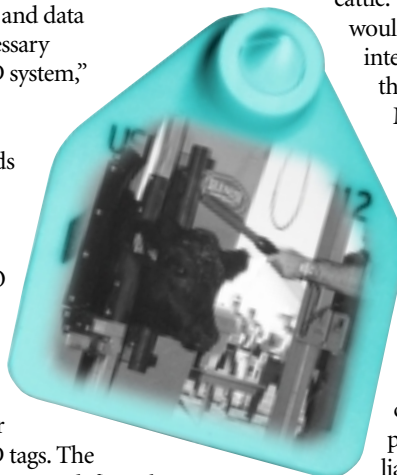
Phase 3, the tracking of animal movements, will also be implemented with individual ID. By July 2005, the system calls for recording the interstate movements of cattle. The following year, the system would track intrastate and interstate movements of cattle through the Electronic Movement System.

More details needed

While the efforts of the task force have provided the framework for a national ID system, there are still many details to be worked out: Who will provide the tags? What will it cost to administer this program? And what about liability?

Those concerns should be addressed in the next round of discussions by the National Animal Identification Development Team Steering Committee that is putting a final proposal together for USAHA by October 2003.

Most importantly, Wilson says, this proposed ID system is not to be perceived as “being government watching us.” This process is unique, he says, because “this is government and industry working together.”



Editor’s Note: To obtain a copy of the 34-page National Identification Work Plan or a condensed summary, contact the NIAA at (270) 782-9798 or review the plan on the NIAA Web site at www.animalagriculture.org/ID.

A list of the organizations involved in developing the national ID standards is also available with the work plan. While the proposed plan represents consensus among the members of the task force, it does not imply complete endorsement of the work plan by all organizations involved.