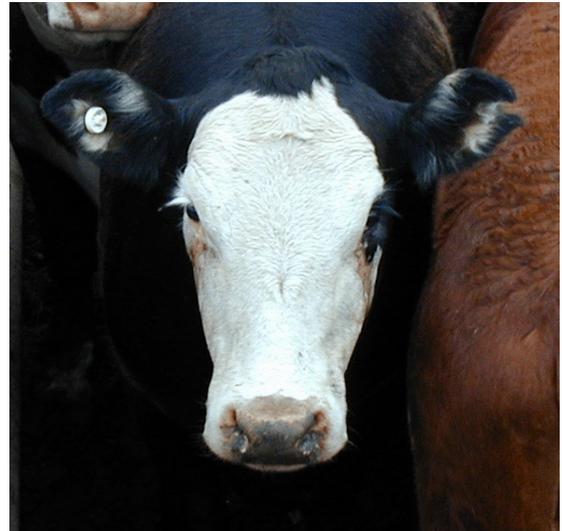




National Animal Identification: Background and Basics for Cattle Producers

Introduction

The National Animal Identification System (NAIS) is a system to identify animals and the premises where they have been, in order to provide the potential to identify and isolate threatening diseases. The cattle system is expected to use individual identification with information of the animal's current and previous locations and dates of transfer, sent to a central database. The details of a national plan are still being developed and debated, and changes may occur before finalized. This factsheet is an attempt to help producers understand the NAIS as proposed and interpreted.



A steer with the proposed radio frequency identification (RFID) tag.

Background and current status

A national animal identification (ID) system that provides the potential to trace animals diagnosed with a threatening disease is fundamental to protecting the economically important livestock and poultry industry in the U.S. While national ID will not prevent a disease from infecting animals, it provides a mechanism to quickly identify, isolate, and monitor potentially infected animals to control an outbreak and instill confidence in domestic and export

customers. Although discussions on a framework for a functional ID system have been ongoing for a number of years, the discovery of one cow with BSE in Washington has made a national animal identification system a priority.

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The NAIS was announced in April 2004 and is a work in progress. It builds upon the U.S. Animal Identification Plan (USAIP) was presented in October 2003 to the U.S. Animal Health Association. The USAIP was developed by the National Institute for Animal Agriculture (NIAA) Committee beginning in 2002. This public-private partnership led by USDA-APHIS (Animal and Plant Health Inspection Service) included over 70 organizations representing the livestock sector and technology suppliers. The motivation for the plan was to enhance disease control and containment to

protect U.S. animal health, mitigate threats to biosecurity of the food supply, and maintain and build access to global markets. *Its goal is to have a traceback system that can identify all animals and premises potentially exposed to a foreign animal disease within 48 hours of discovery.*

The timeline in Table 1 was proposed by the USAIP Cattle

Working Group. It recommends phasing into NAIS over the 2004-2007 period. Premise identification is expected to begin in late 2004 as will several USDA-funded pilot projects evaluating different implementation strategies.

Table 1.

<i>Proposed Implementation Timeline for NAIS</i>		
Introduction <i>2004 -2005</i>	Infrastructure <i>2005-2006</i>	Implementation <i>2007</i>
Establish premises ID system	Establish IT infrastructure	Test analysis and validation of overall program
Education and outreach	Establish RFID reader infrastructure	Determine critical mass to achieve goal
Conduct test strategies	Implement tag distribution system	Required participation with government funding
	ID cattle/report movements	

The proposed system

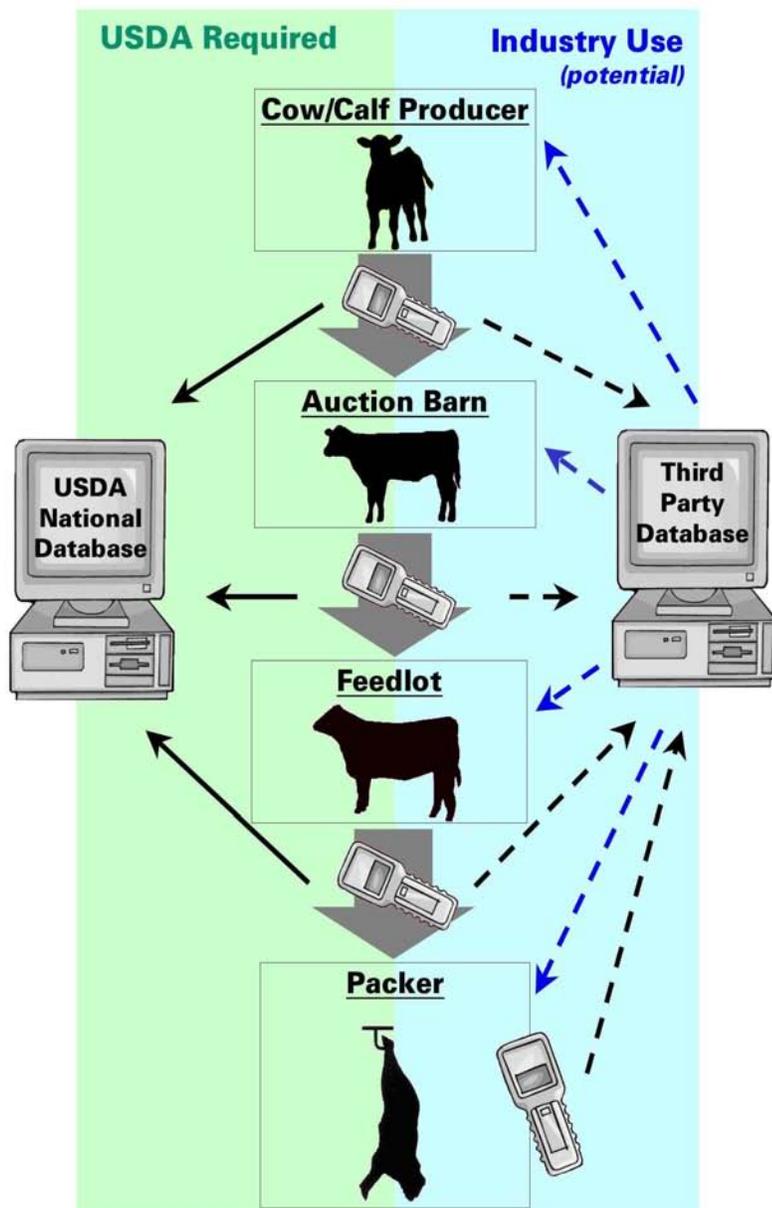
The NAIS includes beef and dairy cattle, hogs, poultry, sheep, goats, horses, cervids, camelids, and aquaculture. Cattle will likely use individual animal ID with radio frequency (RFID) ear tags. The tags only have an electronic number that is used with a database to store other data. NAIS calls for standardized technology to eliminate the need for multiple tags and readers. Hogs and poultry that are handled in groups are identified as a group. Breeding animals treated as individuals will be identified as such. All premises will have a unique premise number assigned by the state veterinarian. A premise is an identifiable location of production or where animals are located (building site, farmstead, auction market, packing plant, etc). Extensive grazing operations will probably use headquarters as the premise.

The proposed system for cattle

Animals will be tagged before they leave the farm of origin, the initial premise. The tag will be read every time animals change premise. For example, calves sold at an auction market to a feedlot will have the tag read entering and exiting the auction facilities. Four pieces of data will be forwarded to the national database each time the animal changes premise:

1. Animal ID number
2. Premise number that the animal is leaving (the cowherd farm in this example)
3. Premise number that the animal is entering (the auction market)
4. Date and time of transfer (when it arrives at the auction).

The Proposed NAIS



- > **USDA Required**
1. Animal ID number
 2. Previous premise number
 3. Current premise number
 4. Dates and times of transfer
- - - - -> **Potential Industry Use**
- Examples:
1. Birth Records
 2. Health Records
 3. Genetic Information
 4. Carcass Data

When the cattle leave the auction to go to the buyer's premise, the tag will be read again with the animal leaving the auction premise and assigned to the feedlot premise at the time the cattle are moved. This will allow the animal to be traced to every premise it entered and when, and can identify other animals that were at the same premise at the same time. The system will also know where animals are at any point in time including if they have been slaughtered, if an animal disease traceback is needed.

Private sectors firms will sell and service the tags, hardware, and software and will send the four pieces of data to the national database. Only approved federal and state veterinarians conducting an approved traceback will have access to the NAIS database. The database will not be available to the general public or producers, even if they own the animal.

Producer responsibility

Individuals will be responsible for premise registration, for tagging the animals with NAIS-approved tags, and seeing that the data are sent to the national database. However, auction markets and other initial collection points may be designated tagging locations and can apply the ear tag and read the data for producers that do not have the head gate or reading equipment. Exceptions for lost tags will be made within normal limits.

Issues and concerns

- ◆ *How will NAIS keep the data confidential and protected from the Freedom of Information Act (FOIA)?* It is proposed to designate Agriculture a critical infrastructure to protect information from public disclosure.
- ◆ *Who will pay for the national ID system?* A public-private partnership has been discussed. It is expected that producers, markets, processors, and the federal government will all contribute. USDA announced \$33 million initially for national ID program, and the bills introduced in Congress included funding. The infrastructure that will be required for the national system will provide opportunities for greater transfer and analysis of production and carcass data.
- ◆ *Where does the producer's responsibility end?* It is currently unclear where the identification to the farm ends. In Canada, the farmer's responsibility ends at the federal inspector. This will have to be clearly defined to assure producer confidence.
- ◆ *Who is responsible for capturing the data and sending it to the database?* At this time, it is unclear if it will be the buyer's or seller's responsibility.



A loading chute with a commercial-type RFID reader

Summary

The development of a national identification system is a significant change from the way we do business today, and will take considerable time and resources to develop and implement. The process is beginning. The NAIS provides a framework for national ID, but the details are still evolving. Pilot projects are underway to evaluate the proposed system. The logistics and details may change as more is learned about the capabilities and costs involved in such a system. A transition period will likely begin in the coming months to move the U.S. towards full implementation. This factsheet is intended to help you better understand the concept and to be prepared for national ID as it is phased in.

For more information, visit www.iowabeefcenter.org or www.usaip.info.

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