

The Business of ID

USDA plans to advance animal ID and traceability through “a business approach” that uses existing industry program infrastructure to reduce labor, costs.

“I want to make sure that this business plan is transparent enough that both the proponents and the opponents of animal ID can look at it and see where we’re going.”

— Bruce Knight

Story & photos by
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Existing livestock information-gathering programs may already hold the basic data and infrastructure necessary for a nationwide animal identification (ID) and traceability system. The next step toward an ID and traceability system is “taking a business approach” to capitalize on the success of those existing programs and focus efforts on the industry segments that offer the greatest return on investment. That was the message of National Animal Identification System (NAIS) program coordinators speaking at the 2007 ID Info Expo, a meeting hosted by the National Institute for Animal Agriculture (NIAA), Aug. 28-30, in Kansas City, Mo.

“We’ve come a long way toward the goal of developing a system to conduct disease traceability within 48 hours. Now we must establish species-specific actions that ensure incremental progress continues,” said Neil Hammerschmidt, NAIS program coordinator for the U.S. Department of Agriculture (USDA). “A new document under development by USDA takes a business approach to implementing NAIS, meaning it targets efforts with the greatest return on invested resources.”

“The business plan lays out the strategies by which we can increase the level of traceability among different species. It describes how we plan to integrate the NAIS data standards into existing disease programs,” USDA Chief Veterinary Officer John Clifford said. “We need to take the data standards that have been developed for NAIS and put them into place in our existing disease programs, as well as look at other things that can assist us with

traceability in the integration of systems that exist out there today without much additional cost.”

Titled “Advancing Animal Disease Traceability,” the NAIS business plan, which was to be publicly released in October, outlines seven key strategies for achieving progress toward a comprehensive traceability infrastructure. It also recommends actions to enable existing industry-administered animal health and marketing programs, state/federally regulated animal health programs, and various animal ID techniques to work in harmony.

☉ Strategy 1: Prioritizing species, segments

The first strategy outlined in the NAIS business plan is prioritizing species, which ensures that resources are applied where traceability advances are of the highest importance. Factors that influenced the ranking of species include capability of existing infrastructure, risk of disease and potential for disease spread, human health risk, and economic merit.

The primary commercial food animal industries — cattle, poultry, swine, sheep and goats — topped the list of priority species, explained John Wiemers, NAIS animal ID coordinator. Also included as a Tier 1 priority species is the competition horse industry, due in part to frequent animal movements.

“Of the Tier 1 species, bovine is our highest priority,” Wiemers said.

“Without a question, cattle have the most to gain from NAIS,” USDA Undersecretary Bruce Knight agreed.

Second priority includes caprine (goats), cervids (deer and elk), equine, poultry and porcine (swine). Last is ovine (sheep). Wiemers

Where are we now?

The National Animal Identification System (NAIS) is a voluntary program that aims to safeguard U.S. animal health through animal identification (ID) and 48-hour traceback capability in the event of a disease outbreak. It consists of three components: premises registration, animal ID and traceability.

Premises registration. Since September 2004, more than 419,400 premises have been registered, representing nearly 30% of the 1.4 million livestock farms estimated to be in the United States by the National Agricultural Statistics Survey (NASS).

Animal ID. There are now eight animal identification number (AIN) devices approved for NAIS use. They’re made by five manufacturers and include seven visual tags with radio frequency identification (RFID) and one injectible transponder. All AINs that have been issued are linked to premises identification numbers (PINs).

Twenty-eight percent of the adult cattle population has been issued an AIN. The U.S. Department of Agriculture (USDA) recommends 70% as the critical mass necessary for bovine participation in the NAIS.

Traceability. Traceability is accomplished by the Animal Trace Processing System (ATPS) and the Animal Tracking Database (ATD). There are now close to 20 ATDs participating in NAIS.

explained that the success of the Scrapie eradication program, and the animal ID data that it incidentally includes, won the sheep industry the lowest-risk placing. Vertical integration of the pork and poultry industries aided in their lower ranking, he said.

Within the high-risk bovine category, the specific segments have also been prioritized. Breeding stock will receive the most attention, focusing on cows and heifers in both the beef and dairy industries. Next priority is feeder cattle.

“Focusing on the breeding herd is the source of the biggest bang for our buck,” Wiemers said. “We will continue to work with species working groups and seek interaction with existing domestic programs such as quality system assurance (QSA) programs, breed registries and performance records, and other industry alliances to focus efforts in these economically important areas.”

► **Strategy 2: Harmonizing government, industry programs**

The need for unique animal ID in government and industry programs is accelerating, Wiemers said. As such, the second strategy outlined in the NAIS business plan is harmonizing animal ID systems currently in place.

Examples of existing information-gathering programs that assign IDs include disease eradication programs, interstate commerce, breed registries, and age- and source-verification programs.

“With these programs, livestock may be identified multiple times yet still not be fully traceable because separate programs use distinct ID protocols. The result is a series of incompatible databases maintained by states, the private sector and USDA Animal Plant Health Inspection Service (APHIS) Veterinary Services (VS) information technology structure,” explains a traceability synopsis published by USDA.

For example, if your cattle were vaccinated as part of the Brucellosis Eradication Program, they were assigned ID numbers. If you register your cattle in the American Angus Association’s breed registry and performance programs, your cattle have another set of ID numbers. Additionally, if you move your cattle across state lines, they most likely have IDs from interstate certificates of veterinary inspection (ICVI) records.

The NAIS business plan proposes harmonizing these programs and others to avoid data duplication and allow one unique set of data assigned to each animal to be used in multiple programs for multiple purposes.

► **Strategy 3: Converging data standards with existing programs**

Existing disease programs are successful in controlling disease risk, but Wiemers said they can leave traceability gaps because the data standards are not uniform from program to program.

“Disease control programs have always assigned premises numbers when



Neil Hammerschmidt



John Clifford



John Wiemers



Bruce Knight



David Morris

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responding to any disease incident. This creates duplicate premises numbers when a single location has more than one disease incident because each incident has its own data record," Clifford explained. "NAIS will assign unique data numbers to prevent multiple numbers for the same location."

"The NAIS provides the common data

standards required to close traceability gaps," Wiemers said.

In July 2007, USDA published the final rules on NAIS data standards needed to ensure compatibility across information systems, he explained. The three data components of NAIS are premises identification numbers (PINs), which

identify where animals are raised, held or boarded; animal identification numbers (AINs), which identify individual animals based on premises of origin; and group/lot identification numbers (GINs), which identify animals that typically move through the production chain in groups.

Wiemers said the NAIS data standards

can be used to replace previous non-standardized numbers, with emphasis on databases that record locations importing and exporting livestock, locations participating in official disease-control programs, and origin and destination locations listed on ICVI records.

"Common data standards can enable these separate program databases to share location and animal ID data essential to disease control," reads USDA's traceability synopsis. "This approach conserves time, money and effort by drawing from systems and data already in place."

► **Strategy 4: Integrating automated data-capture technology**

The fourth strategy of the NAIS business plan is to integrate electronic data capture and reporting technologies into existing disease programs.

Disease programs such as Brucellosis (Bang's disease) vaccinations and tuberculosis (TB) testing will collect data electronically by using NAIS-compliant radio frequency identification (RFID) devices and integrating handheld readers to replace paper-based forms, Wiemers said. Animal health officials will then be able to electronically record and submit essential data to the USDA Animal Health and Surveillance Monitoring database or other appropriate animal health database. USDA's traceability synopsis says that this electronic collection of data will "increase volume and quality, minimize data errors, and speed data entry into a searchable database."

USDA is also helping to distribute RFID tags to increase electronic data capture capabilities in the highest-risk areas.

"We are in the process of procuring 1.5 million RFID tags to be distributed to areas of higher disease risk, such as the TB accredited-free zone in Michigan or areas around Yellowstone Park where migrant deer and elk herds can transmit Johne's disease," Clifford explained.

► **Strategy 5: State partnerships**

Just as the priorities of each species are different, so are the animal health priorities of individual geographic regions, said David Morris, senior staff veterinarian for USDA. The fifth strategy of the NAIS business plan is to work in close partnership with state and tribal officials to support the advancement of each region's disease traceability infrastructure. States and tribes will administer localized plans reflecting their region's specific animal health priorities.

► **Strategy 6: Industry collaboration**

As part of the sixth strategy, USDA has entered into cooperative agreements with industry organizations to support premises registration, Morris explained. "Producer organizations representing member interests can accelerate the

adoption of practices that advance traceability,” USDA’s traceability synopsis says.

Examples of these industry partners include the National Pork Board, the U.S. Animal Identification Organization (USAIO), the National FFA Organization, IDairy and the American Angus Association, among others. (See “Angus joins USDA to register premises.”)

Accredited veterinarians are also being targeted for partnership because they are “on-farm experts and often serve as first-responders in disease situations. They are conduits for information and can enhance the adoption of NAIS standards in everyday management and disease program activities at the producer level,” Morris said.

Additionally, existing infrastructure and trained personnel in the Western brand states are also a source of government-industry collaboration. Auction markets, feedlots, harvesting facilities and other industry sectors are also a priority.

► Strategy 7: Advancing ID technologies

As part of the seventh and final strategy of the NAIS business plan, USDA will focus on establishing performance standards for ID devices and evaluating emerging technologies that can operate at the “speed of commerce,” Morris said. The American Society for Testing and Materials (ASTM) will be involved.

“Advancements in traceability require practical, affordable technology solutions that improve efficiency and accuracy of animal ID data collection,” Morris said.

Outcomes

“We have folks out there in the countryside who are very supportive of

animal ID, and we have folks who are a little less enthused about it. I want to make sure that this business plan is transparent enough that both the proponents and the opponents of animal ID can look at it and see where we’re going,” Knight said. “I think the opponents will be comforted by it in realizing that this isn’t an invasion

of their privacy, and proponents will be comforted by it because they can see where they fit into it and how they will benefit from a comprehensive animal ID system.”



Angus joins USDA to register premises

In early August, the U.S. Department of Agriculture (USDA) and the American Angus Association entered a partnership that will facilitate the registration of up to 15,400 new premises as part of the National Animal Identification System (NAIS), according to a USDA release. The premises registration component of NAIS ensures the availability of a nationwide communications network to assist livestock owners and animal health officials in the event of an animal disease event.

Under the agreement, Angus educational efforts will include on-site educational discussions through the Association’s Outreach Seminars and other educational programs, print advertising, direct mail, e-mail communications and online training.

For more information visit www.angus-nais.org.