

**Consolidated Report from the National Animal Identification System  
Subcommittee to the Secretary Advisory Committee on Foreign Animal  
and Poultry Diseases**

FINAL  
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**NAIS Historical background**

World events at the beginning of this century prompted serious consideration among the nation's animal health officials of the challenges in safeguarding the national herd from the harmful effects of disease. One of the key recommendations in addressing this concern was the establishment of a national plan to identify livestock.

In 2001, the National Institute for Animal Agriculture committee on Animal Identification and Information organized a National Food Animal Identification Task Force comprised of approximately seventy representatives of over thirty stakeholder groups. After months of work, the task force produced the National Identification Work Plan (NIWP). The plan was presented in 2002, at the NIAA ID/INFO EXPO in Chicago and, following input, minor modifications were made. The final draft of the NIWP was then presented to the United States Animal Health Association (USAHA) at its annual meeting in October 2002. There it was accepted with a resolution calling for USDA, APHIS, VS, to establish a National Animal Identification Development Team composed of industry representatives to develop a national plan using the NIWP as a guide.

In February on 2003, USDA, APHIS formally established the National Identification Development Team (NIDT) by appointing key industry leaders to steering committee. With the input of this committee five additional subcommittees were formed, and soon nearly one hundred individuals were providing input to a plan that became known as the United States Animal Identification Plan (USAIP).

The goal of the USAIP was to develop a system that would provide animal health officials the ability to provide 48 Hour disease traceback in the event of a foreign animal disease. The USAIP provided recommendations in regards to general goals, standards, information systems, and oversight. The framework that was outlined in the USAIP was submitted to USAHA in October, 2003. The USAHA provided a recommendation to USDA to continue the development of the USAIP through species working groups and to provide funding for the implementation of the USAIP. As a result, nearly 300 additional individuals became involved in the further development of the USAIP.

While USAIP continued to be developed, the first confirmed case of BSE in a Washington State dairy cow was announced in December of 2003. In 2004 USDA announced the development of a comprehensive national identification initiative named the National Animal Identification System (NAIS). In 2004 funding was made available to states to implement premises registration and conduct pilot projects to evaluate the different animal ID technologies. In September of 2004 a subcommittee to the USDA Secretary's Advisory Committee on Foreign Animal and Poultry Diseases (SACFAPD) was formed with the goal of reviewing input and recommendations to the NAIS received from the species working groups, USAHA, NIAA and any other organizations or individuals. The NAIS Subcommittee reviewed the input received from all these sources and provided recommendations for final adoption by USDA. In 2005 the NAIS Subcommittee sent two reports to the SACFAPD chair, one dated March 18<sup>th</sup>, 2005 and the second report dated September 7<sup>th</sup>, 2005.

### **Committee work**

The NAIS Subcommittee was appointed in September of 2004. Since then the Subcommittee has conducted 6 face to face meetings and several conference calls in between. USDA staff provided updates on the implementation of the NAIS and to date 5 species working groups have submitted recommendations to USDA after review of the NAIS Subcommittee. The NAIS Subcommittee wishes to recognize the many hours and days species working groups have invested in the formulation of working plans on how the NAIS can be implemented within their respective species. Implementation of a national animal identification system is a huge undertaking and affects many segments of the livestock industry, state and federal government. The NAIS Subcommittee recognizes the need for a transparent process and wishes to provide all those affected the ability to provide input toward the further development and implementation of the NAIS.

As defined by the NAIS, the ensuing system must provide the 48 hour disease traceback capability, but must adhere to the following guiding principles:

- Be cost efficient,
- Be simple and workable for all those affected by the system
- Protect the livestock industry from any unintended use of data collected under NAIS.

The members of this Subcommittee wish to emphasize that these guiding principles were used throughout the process of establishing the recommendations presented in this report.

In the past 2 years the NAIS Subcommittee focused on the following 6 major areas:

- 1) Draft Strategic Plan
- 2) Draft Program Standards Document
- 3) New Identification Technology
- 4) NAIS Implementation and Outreach
- 5) International Compatibility
- 6) Species Working Group Reports

Recommendations provided below are categorized by the six areas listed above and the respective year the discussion and recommendations took place.

### **Recommendations to the SACFAPD**

#### *1) Recommendation regarding the Draft Strategic Plan:*

##### *1.1) 2004 recommendations*

In 2004 the Subcommittee reviewed the USDA Draft strategic plan and supports the Draft strategic plan with timelines for full implementation in 2008, contingent on adequate funding (funding level was unknown at that time). It was acknowledged that the financial analysis, reflecting the full cost of implementing the NAIS, is a necessary component of the strategic planning process. The Subcommittee also suggested that additional timelines be presented that would reflect timeliness of implementation under current and/or reduced funding scenarios. It was acknowledged that the current plan probably represented an optimistic goal from a "physically possible" standpoint. Additionally, the timelines need to be presented as goals, not deadlines.

Regarding the "stages of development," it was recommended that Veterinary Services evaluate if such differing levels or presentation of information would have negative impacts on international trade.

**The Subcommittee recommends that USDA prepares an in-depth cost: benefit analysis in advance of the rule making process and that the report be presented to the NAIS Subcommittee.**

**The Subcommittee recommends that after reviewing a summary of the comments on the draft strategic plan and program standards, the Subcommittee believes that there are no substantial conclusions that recommend a deviation from the currently proposed timeline and implementation of the NAIS.**

In 2004 the Subcommittee addressed a report brought forward by the Information Technology Working Group regarding the options for the storage of animal ID and animal tracking data. The Subcommittee discussed the various models (public-private, centralized versus distributed) by which animal ID and tracking information could be stored.

**The Subcommittee recommended that USDA follow up on the outcome of the IT WG report that suggested:**

- **A field study be performed to evaluate the anticipated pro's and con's outlined in the report to better understand the issues related to functionality, cost, oversight, and operations of a de-centralized system in addition to a single centralized database (as outlined in the United States Animal Identification Plan document).**
- **USDA obtain legal advice to determine if the de-centralized option as outlined in the report under different conditions (mandatory versus voluntary national animal identification, private funds versus cost share with public funds) will provide additional protection from the Freedom of Information Act compared to the single centralized database design operating under the same conditions.**

**The Subcommittee also recommended that an assessment be made of recording versus reporting ("pull" versus "push") systems and that such an assessment be included in the study of database structure.**

#### *1.2) 2005 recommendations*

In 2005 the Subcommittee received a presentation from USDA staff outlining cost projections through the next several years for the implementation of the NAIS. The committee reviewed the cost benefits, and based on the discussion recommended the following:

**The Subcommittee recommended a 50-50 cost share projection between industry and government.**

**The Subcommittee recommended USDA/Veterinary Services utilize these cost projections in moving the initiative forward as recommendations to the Secretary in defining cost allocations between Federal, States and industry.**

In 2005 USDA outlined the funding level that would be available in fiscal year 2005 and the requested funding for subsequent years to implement the NAIS. The Subcommittee acknowledged that the \$33M funding level provided in 2005 and future years would not adequately support the NAIS objective under a 50-50 cost share program. The Subcommittee, therefore, requested that USDA project the effects of such shortfalls by each respective year, reflecting the lessened capabilities of NAIS, and that the date for having 48-hour traceback capability be defined as a result of budget limitations already experienced.

**The Subcommittee recommended that USDA staff provide the Secretary with projections illustrating the extended timeline and the effect this would have on attainment of the NAIS objectives (48 hour trace-back) based on a \$33 million dollar NAIS funding level and future cost projections.**

**The Subcommittee recommended USDA keep timelines for all components of NAIS and move forward expeditiously to distribute the AIN 840 series numbering and ISO RFID for the cattle industry.**

**The Subcommittee recommended that after reviewing a summary of the comments on the Draft Strategic Plan and program standards, the Subcommittee could not identify any substantial conclusions that would necessitate a deviation from the currently proposed timeline and implementation of the NAIS. The Subcommittee affirmed its position that a USDA owned and operated animal tracking database would be the cheapest and most efficient solution. However, should USDA choose to allow private database proposals, the Subcommittee recommended that consideration be given only to solutions that are brought forward by a coalition representing the entire livestock industry, producers, markets and harvesters. It was also recommended that USDA complete the development of their database, so that if such a coalition were not successful, the timeline for implementation would not be substantially delayed.**

As a follow-up to the public hearing USDA conducted in October 2005, the Subcommittee discussed the privatization proposal for a single legal entity to oversee and administer the animal tracking database.

**The Subcommittee's re-acknowledged its position on the private database. "The Subcommittee is not supportive of privatizing the animal movement tracking database as proposed. However, given the Secretary's announcement and the discussions relative to the database issue, USDA must establish clear and precise criteria they will require**

**for the make up of the recognized legal entity to ensure the representation of the entire livestock industry, producers, markets, and harvesters. The formal relationship with the industry entity must be established through a single Memorandum of Understanding (MOU) or other appropriate document. Additionally, the scope responsibility for the legal entity must be specific to the animal movement tracking database. Such responsibility must be clearly provided to the industry group as they initiate their discussions and the scope of responsibilities must be defined in the MOU with the legal entity."**

As a result of concerns brought forward during the 2005 NIAA ID Info expo in regards to potential patents that may exist and could play a role in the privatization of the animal ID and animal tracking database, the Subcommittee discussed what appropriate action should be taken to make all stake holders aware that patents may exists and should be considered.

**The Subcommittee recommended USDA do a complete research of all patents and intellectual properties (IP) pertaining to animal identification issues that could be a potential conflict and/or of relevance to the NAIS and that a summary of such be provided to the Subcommittee. The findings of IPs that are relevant to the tracking database should be made available to industry stakeholders and considered in relation to the potential formation of the legal entity that might establish the private animal tracking database.**

### *1.3) 2006 recommendations*

The Subcommittee reviewed concerns brought forward by industry in regards to the privatization of animal tracking databases and the possibility that inequities may develop between states that offer a state administered ATD at no charge and states that will not offer a state animal tracking database. Producers residing in states without a state administered ATD could only participate in NAIS at their own expense.

**The Subcommittee recommended that all producers have the opportunity to utilize a government-managed animal tracking database system under NAIS.**

Under the newly established ATPS, the Subcommittee reviewed the changes (from 2005 Draft Program Standards) that USDA had made regarding when State and Federal Animal Health Officials would be able to initiate a request for information from the Animal Tracking Databases without the industry's input to

such changes. The Subcommittee expressed their concern that the new definition would cause a lag time between when animal health officials would start a disease investigation and when they will have access to the ATPS. Animal health officials would lose valuable time addressing the potential spread of a disease under the new definition. Following an extensive discussion, the Subcommittee agreed that revision to the current explanation defining access to the ATDs was in need of modification.

**The Subcommittee recommended that USDA establish the following description for when the State and/or Federal Animal Health Official would access the ATPS to submit a request for information to the ATDs:**

- **An investigation of foreign or emerging animal diseases of concern**
- **An animal health emergency as determined by the Secretary of Agriculture and/or State Animal Health Official; or**
- **A need to conduct a traceback/traceforward to determine the origin and distribution of infection for a program disease such as brucellosis and tuberculosis.**

USDA has established several Change Control Boards (CCB) (ATPS, SPRS, AIN) to manage changes to the various IT components of the NAIS. The Subcommittee recognizes the value of CCB's and that it can only include a limited number individuals to keep it a manageable group. However the Subcommittee feels that comments need to be received from all individuals on NAIS IT components.

**The Subcommittee recommended that the USDA reinstitute the IT Working Group to provide input to the NAIS information systems and that such recommendations be reported to the NAIS Subcommittee.**

Given the present uncertainties associated with implementing a fully operational real-time animal health ID tracking system across all species under a voluntary, "technology neutral" system and, given the uncertainties associated with industry being able to meet self-imposed timelines for database development, testing and implementation of a consensus driven privately managed data base system, USDA should implement a low-cost interim system for NAIS. This interim low cost system can be described as the "Book-ends" approach. Where and when appropriate by species, the animal's individual identification is reported prior to leaving the herd or flock of origin when a change of ownership occurs and the same animal's individual identification is also reported at slaughter or death. USDA should have this low cost interim "book-ends" system in place, in the event

full implementation of NAIS is not practical at this time or in the foreseeable future, to protect the health and welfare of the nation's livestock industry.

**The Subcommittee recommended that USDA shall maintain the AIN allocation and AIN retirement information within the AIN system.**

## *2) Recommendations Regarding the Draft Program Standards Document*

### *2.1) 2005 recommendations*

USDA developed a draft program standards document that was largely based on the work outlined in the USAIP and UM&R document in place with states. For NAIS to be successfully implemented standards for numbering systems and data collection are crucial. Early in 2005, the Subcommittee had considerable discussion regarding how best to facilitate the development of technology to automate the collection of animal identification and animal movement information which is the costliest component of NAIS as proposed at that time.

**Following the cattle species working group recommendations, the Subcommittee recommended that the SACFAPD recognize, ISO 11784 and 11785 as the immediate RFID standards for the bovine industry and that USDA continue implementation of NAIS within the cattle industry using the RFID performance standards established by the Cattle Species Working Group.**

**The Subcommittee further recommended that USDA, with species working group input, put forth performance requirements for capturing animal ID data in various environments and species. An RFI should be prepared and distributed to solicit the development of solutions that will meet the established performance requirements needed to automate data collection systems.**

**The Subcommittee recommended that information contained on the ID tag should include "unlawful to remove" imprinted on the backside of the tag (tag on the outside of the animal's ear). The US Shield must be printed on both the male and female parts of the tag.**

**The Subcommittee also recommended the following for RFID tags:**

- to make the tags white with black printing as the standard
- the AIN must be printed on the tag (same tag that contains the transponder for RFID tags)
- the tag should be inserted into the left ear of the animal.



## 2.2) 2006 recommendations

In 2006 the Subcommittee reviewed requests made by industry and states to require species codes to be recorded in state systems and add subgroups for specific species.

**The Subcommittee recommended that "Species at Premises" be established as a required data field in the premises registration systems, but such not be transferred to the National Premises Information Repository and that to provide statistics by species, the state/tribes systems provide monthly or quarterly reports to VS.**

**The Subcommittee recommended that under Bovine subgroups be added for Bison, (BIS); Beef (BEF) and Dairy (DAI) and that the premises registration systems be required to have such subgroup data fields in their premises registration system, but that the determination of having the data collected and entered be established by the State/Tribes. The Subcommittee also recommends that a subgroup defined as "Exotic Hoof Stock" be added.**

It was brought to the Subcommittees attention that the AIN number for RFID eartags is printed on both the front and back side of the tag. It is key that producers match the front and back correctly to avoid having a mismatch. Tag manufacturers package the RFID tags in pairs, however the chance exists that producers will mismatch the front and back when applying the tag.

**The Subcommittee recommended that in the event of a mismatch of the tag pieces of an RFID button tag occurs, the AIN on the tag piece that contains the transponder be the animal's official number.**

In addition to the Cattle industry recommending RFID devices with AIN numbers, the Swine industry needs an official tag with the PIN and U.S. Shield. Therefore the Subcommittee urged USDA to finalize the process for having such a tag available as soon as possible. The Subcommittee discussed the need to monitor the performance of tags once they have been approved. This would help ensure that manufacturers respond more quickly and adequately when an approved tag has performance concerns or inadequacies.

**The Subcommittee recommended that USDA APHIS VS establish a process to audit the performance of official identification devices and to ensure that devices meet the established standards that reflect**

**various production environments and use over an extended periods of time.**

*3) Recommendation regarding new identification technology*

*3.1) 2005 recommendations*

While the Subcommittee agrees that ISO RFID-compliant technology is the immediate starting point for certain species (cattle in particular), it continues to emphasize that NAIS must be open to new technologies that may supplement and/or replace current RFID devices in the future. The Subcommittee recommends that USDA APHIS establish procedures that would allow advancing technologies to be recognized by NAIS and that processes for the transition of such technologies into NAIS also be established. Continued field trial projects should be funded by USDA to support the field application evaluations of such technologies.

**The Subcommittee recommended that the USDA establish an objective evaluation process for evaluating new technology and a method for incorporating technology into NAIS that includes open standards (non proprietary) and proven effectiveness. USDA is requested to provide a report by the NIAA ID Info Expo with prior review by the Subcommittee.**

*4) Recommendation regarding NAIS implementation and Outreach*

*4.1) 2005 recommendations*

Early in 2005 the Subcommittee discussed the USDA NAIS outreach program and recognized that outreach is a key component in implementing the various components of the NAIS. The Subcommittee recommended that an intensive outreach plan be launched and that advertising needs to be targeted to the grass- roots level.

Items for consideration in the outreach program:

- Providing PowerPoint presentations to contain standard information and be consistent across the board with species specifics added.
- "Target specific" information could be added to the standard presentations for those who are doing seminars, talks, presentations, etc.
- Seminars should be given at the State levels to train others in giving these presentations and talks to help ensure that everyone is presenting

- consistent and correct information.
- Presentation "style" must be left to the discretion of the presenter as everyone uses a different approach.
  - Provide a grid outlining the specific species working group recommendations which can be used as best reference information for preparing presentations to a certain species. The "grid" would be completed by all species groups.

The Subcommittee acknowledged the merit of having Farm Services Agency (FSA) support NAIS through its offices nationwide. While the Subcommittee supports FSA involvement in information sharing and providing support for premises registration, the Subcommittee realized that such personnel are not animal health professionals and requested USDA maintain proper distribution of responsibilities for NAIS. Additionally, the extent of involvement of FSA in NAIS should be determined by each State animal health authority.

**The Subcommittee recommended encouraging state veterinarians and state animal health officials to work with their FSA offices to advance NAIS implementation efforts within their states.**

#### *4.2) 2006 recommendations*

Early in 2006 the Subcommittee devoted significant time to discuss the outreach program and concerns that the correct message about NAIS is not reaching producers. The Subcommittee recognized the valuable role industry and producer groups play in getting information about NAIS to producers.

**The Subcommittee recommended that USDA leverage its NAIS communication and outreach funds through partnerships with industry organizations to accurately communicate the components of NAIS.**

In the summer of 2006 the Subcommittee received an update from USDA on the renewed outreach efforts. The Subcommittee wishes to re-emphasize that industry cooperation is crucial to reach adequate levels of participation.

**The Subcommittee recommended that USDA leverage its NAIS communication and outreach funds through partnerships with industry organizations to accurately communicate the components of NAIS.**

## *5) Recommendations Regarding International Compatibility*

### *5.1) 2005 recommendations*

The Subcommittee recognized the need to have compatible animal identification technologies to support and enhance trade while ensuring we maintain optimal animal health controls and urged USDA to work closely with animal health authorities in Canada and Mexico to establish compatibility of ID technology, and, to the degree necessary, animal identification requirements.

### *6) Species working group recommendations*

The Subcommittee reviewed input and updates from all species working groups throughout the past 2 years. Most reports were status updates and did not require action on behalf of the Subcommittee.

#### *6.1) 2004 recommendations*

The Subcommittee reviewed the cattle working group report and adopted the report as presented.

**The Subcommittee recommended that the USDA adopt the cattle species working group report.**

#### *6.2) 2005 recommendations*

The Subcommittee reviewed the equine, sheep, goat, swine and bison working group reports. Comments were provided back to each of the working groups.

**The Subcommittee recommended that the definitions for Swine Production System and Swine Group/Lot Identification be added to the Program Standards document.**

#### *6.3) 2006 recommendations*

The Subcommittee recognized that the details for implementation of the NAIS are not included in the Draft Strategic Plan and need to be provided by the Species Working Groups. It was thought this would help diffuse the misinformation and provide producers with the recommendations brought forth by the individual species working groups. Therefore, the Subcommittee deemed it important that the key species working groups expedite writing the document

outlining specific recommendations such as which animals need to be identified and which movements are to be collected under NAIS.

**The Subcommittee recommended USDA request all species working groups to submit 2006 species status reports by August 1, 2006.**

The group reviewed an amendment to the cattle species working group and the swine species working group report.

**The Subcommittee recommended that the USDA adopt the Cattle Species Working Group and the Pork Industry Identification Working Group reports with addenda.**

The Subcommittee received and reviewed the Sheep, Equine and Goat working group reports. It was mentioned that the goat working group report is not completed at this time.

**The Subcommittee recommended that the USDA adopt the Sheep Species Working Group report.**

**The Subcommittee recommended that the USDA adopt the Sheep and Equine Species Working Group reports.**

**The Subcommittee recommended to adopt the Goat Species Working Group report as an interim report.**