

Statement by the Farm and Ranch Freedom Alliance

April 15, 2009

The Farm and Ranch Freedom Alliance (FARFA) requests that USDA halt implementation of the National Animal Identification System (NAIS). Contrary to its stated purposes, NAIS will not address animal disease or food safety problems. Instead, NAIS imposes crippling costs and paperwork burdens on family farmers, which may lead to loss of these farms, increased consolidation of agriculture, and more reliance on foreign imports. This will ultimately lead to greater disease problems and reduced food security. This Statement will discuss some of the many problems with NAIS, and then suggest alternatives for improvements in both animal health and food safety.

I. The design of NAIS is not scientifically sound

NAIS is based on the premise that we need 48-hour traceback of all animal movements for disease control. FARFA has submitted two Freedom of Information Act requests, the first in November 2006, asking for any scientific studies or analyses supporting the design of NAIS as a disease control program. USDA has failed to provide any scientific basis for the program.

The susceptibility of animals to disease and the likelihood of transmission differ greatly depending on the species of animal, the disease, and the conditions under which the animals are kept.¹ Some diseases spread in a matter of hours, while others take years. The attempt to track every movement of every animal violates epidemiological and risk-based principles.

Increasing tracking of animals cannot improve our ability to address animal disease because tracking is not the weak link in the chain of our animal health system. In 2005, the GAO analyzed the government's provisions for preventing agroterrorism, assessing livestock diseases in particular. The GAO did *not* identify any deficiencies in current livestock tracking, or recommend that resources be allocated to programs such as NAIS. Rather, the GAO identified multiple deficiencies in other aspects of animal disease programs, including the lack of training for veterinarians in foreign animal diseases, USDA's failure to use rapid diagnostic tools to test animals at the site of an outbreak, USDA's complex decision making process for deploying vaccines, and the decline in agricultural inspections at ports of entry.² USDA should allocate its resources to these deficiencies.

II. NAIS is cost-prohibitive for small farmers

The costs of complying with NAIS will be unreasonably burdensome for small farmers. A 2006 Kansas State University report found that costs of an RFID-based system are significantly higher for people with smaller herds due to the expense of the electronic infrastructure.³ The costs of NAIS go far beyond the tag itself, and include:

- a) premises registration database creation and updates;
- b) tags and related equipment, such as readers, computers, and software;
- c) 24-hour reporting requirements, imposing extensive paperwork burdens;
- d) labor for every stage of the program;
- e) stress on the animals; and
- f) qualitative costs, from loss of religious freedoms, privacy, and trust in government.

NAIS required tagging and reporting will disproportionately burden sustainable livestock operations and others that manage animals on pasture. Tag losses due to animals getting their tags caught on brush or fences will be higher than in confinement operations. Most small farmers will not qualify for a group identification number because their herds and flocks are comprised of animals from different sources.⁴ If 100 laying hens are pastured in a movable shelter, or 200 sheep are grazed together, and the farmer finds the partial remains of an animal from predator attack, the farmer faces the nearly impossible task of individually identifying all of the remaining chickens or sheep in order to identify and report the one that was lost, as would be required to be compliant with NAIS.⁵

From an animal disease control perspective, pasture-based livestock operations are not the problem. While confinement operations present the ideal conditions for the spread of the disease, pastured operations, in which animals are kept in natural conditions on rotating pastures, have a far lower risk of developing or spreading diseases.⁶ For example, in the 2004 outbreak of avian flu in Texas, the disease was found in a 6,600-bird commercial poultry operation; but no infected birds were found in any of the 350 nearby non-commercial flocks that were tested.⁷

III. NAIS does not increase food safety

In considering food safety and traceability, it is critical to distinguish between tracking live animals and tracking meat from the slaughterhouse to the consumer. Most food-borne illnesses are from bacteria such as salmonella, e. coli, and campylobacter, or a specific group of viruses called the Norwalk viruses.⁸ These organisms contaminate food due to poor practices at slaughterhouses or in food handling. NAIS will **not** prevent these problems. And since NAIS tracking ends at slaughter, it will not improve the tracing of contaminated meats in the food chain.

Neither will tagging cattle prevent BSE from occurring or from entering the food supply. In last year's Hallmark/Westland beef recall, the packing plant's violation of existing regulations and USDA's failure to properly inspect the plant, allowed "downer" cows to be slaughtered. In the video from the Humane Society, every time there was a clear shot of a cow's left ear, one can see a tag.⁹ Changing the type of tag to a NAIS electronic tag would do nothing to avoid similar problems in the future.

An immediate feed ban, that closes loopholes allowing things such as poultry litter in cattle feed, is the best way to prevent BSE from occurring in the first place. To address the human health risk, we should test cattle entering the food supply, as is done in Japan and Europe.

IV. NAIS will decrease homeland security

A. Increased consolidation threatens food security.

Under the USDA's plans for NAIS, the default requirement is individual identification of each animal. Group identification would be allowed for "animals that typically move through the production chain as a group of animals of the same species ... This practice is most common in the poultry and pork industries."¹⁰ In practice, this means that companies who maintain ownership of the animals throughout their lives – as is done in vertically integrated confinement

operations – will be relieved of most of the costs and paperwork burdens of NAIS. NAIS therefore creates significant incentives to further consolidate agricultural production.

Increased consolidation of our food supply creates greater risk. The 2005 GAO report on agriculture and terrorism noted that the concentration of our food supply makes it vulnerable to attack: “the highly concentrated breeding and rearing practices of our livestock industry make it a vulnerable target for terrorists because diseases could spread rapidly and be very difficult to contain.”¹¹

B. The use of electronic technology and databases create vulnerabilities.

RFID technology is subject to problems that do not exist with traditional identification methods such as branding or tattoos. Depending on the security of the technology used, the microchips can be cloned or infected with computer viruses (which can then be passed to other chips through the scanner).¹² In fact, the specific type of RFID to be used in NAIS, the ISO 11784/11785 chip, is designed to be programmed in the field before is applied to animals or even *reprogrammed after application*. This problem with the ISO standard is well known in the technology community and has been debated for years.¹³ It is impossible to reliably trace an animal if someone can change its identity at any time. Also, the databases will be vulnerable to accidental release of the information as well as hackers.

C. NAIS is not effective in addressing the issue of avian flu.

Avian influenza, in particular the highly pathogenic H5N1 virus, is frequently raised as a homeland security issue that weighs in favor of implementing NAIS. The threat, however, comes from large commercial operations, because the density of the birds and the conditions they are kept under provide ideal conditions for the rapid spread and mutation of viruses.

An NGO report indicates that the spread of avian flu, including H5N1, is due to conditions in confinement poultry operations.¹⁴ A later report states: “Studies indicate that highly pathogenic strains of bird flu evolve when low pathogenic strains of the virus, which circulate harmlessly among wild bird populations, are introduced into high-density poultry flocks. Once bird flu takes hold in a factory farm, the virus amplifies and spreads beyond the farm through a multitude of channels: trade in birds and eggs, people coming in and out, the elimination of waste, the use of litter in feed, etc.”¹⁵ For a domestic example, in the 2002 outbreak of avian influenza in Virginia, “farm equipment, vehicles and personnel” moved among commercial facilities caused transmission of the virus.¹⁶ Even a USDA report found that, out of 45 outbreaks of H5N1 in the country of Laos, 42 of the outbreaks occurred in commercial operations.¹⁷

As with all of the disease issues, a one-size-fits-all approach of tracking every chicken in the country will not address avian flu. The agency should focus its efforts on the high-risk commercial operations and practices that can spread disease, such as feeding poultry litter.

V. NAIS cannot succeed because of the many practical barriers to implementation

NAIS is fundamentally impractical to implement. USDA’s plans call for multiple public and private databases, capturing all of the reportable “events” for every animal, with the USDA creating a metadata portal to use for its purposes.¹⁸ Establishing these databases will be a

monumental task. There are almost a hundred million cattle in the U.S., and millions more horses, chickens, sheep, goats, pigs, deer, elk, bison, and other livestock animals. These animals are taken to shows, sold in auction houses, sold in private transactions between individuals, slaughtered, and otherwise moved for myriad reasons. The NAIS reporting and tracking system has myriad potential failure points. Moreover, integrating databases is far from simple. Indeed, despite the emphasis on interagency cooperation since 9/11, the GAO's 2005 report on agriculture and terrorism noted that the federal government still had not integrated its own databases.¹⁹

USDA assumes that all people covered by the NAIS will have computers and web access to report within 24 hours after a reportable event. Based on 2007 Census, however, almost half of farmers do not have internet access. Thus, state agriculture departments will have to accept written reports mailed to their agencies or telephone reports that will be transcribed. This creates two more failure points: human error in data input and the untimely recordation of events.

The massive databases themselves pose a barrier to successful traceback. Colorado researchers developed a mock data set and algorithms for using a NAIS-type database for tracing animal movements and the cohorts of diseased animals.²⁰ Although the research indicated that traceback of a diseased animal was quite rapid, the tracing of the cohorts (the animals that had come into contact with the diseased animal and then with other animals) took vastly longer, especially if the data was kept in more than one database. Their simulation of 100 million animals with the data held in multiple databases indicated that it could take *more than 39 years* to trace the cohorts.

The USDA's claim that 100% participation is necessary to address disease issues founders on the reality that there will never be full participation. If NAIS is adopted, it is inevitable that some livestock owners – whether for religious or economic reasons, or unwillingness to allow the government intrusion – will not comply. Since they will be acting illegally, they will be far less likely to seek a veterinarian's help should a disease problem arise. This black market will create disease problems, as evidenced by the outbreak of Exotic Newcastle Disease that occurred in Los Angeles in 2002. The outbreak was started and spread by cockfighting flocks that had been smuggled from Mexico because cockfighting is illegal in California.²¹ NAIS will increase the probability of disease outbreaks by undermining the first line of defense: the actions of private individuals and their veterinarians in quickly diagnosing and containing diseases.

VI. Ethical concerns: Conflicts of Interest in NAIS

The USDA's working groups for the design of NAIS were initially drawn from the working groups established by the National Institute for Animal Agriculture (NIAA). The NIAA is an industry trade organization, and the members of the working groups included many companies who stood to profit directly from the implementation of NAIS, such as tag manufacturers and database management companies. These conflicts of interest permeate the plan and have never been addressed.

Additionally, the use of private databases creates more conflicts of interest and leaves farmers and ranchers vulnerable to the misuse of their confidential information. The recent court decision finding that the NAIS premises registration information is exempt from FOIA does **not** address the potential for misuse of that information by private database managers or by those who obtain the information through illegal means such as hacking the databases.

VII. Alternatives to NAIS

We strongly urge you to stop implementation of the NAIS and focus efforts on these alternatives:

- ◆ Encourage decentralization of the livestock industry to reduce its vulnerability.²²
- ◆ Improve training for veterinarians in recognizing foreign and emerging animal diseases.²³
- ◆ Increase inspections of animals and agricultural products entering the U.S. or crossing state borders and refuse admittance of animals from countries with known disease problems such as BSE and Hoof and Mouth disease.
- ◆ Identify high-risk situations and quantify critical factors for livestock diseases of concern, such as the level of contagion, the means of transmission, and the severity of the diseases of concern. Based on the analysis of these factors and of existing programs, develop improvements to existing programs. Limit any such programs to non-electronic means of identification when the animal enters the stream of commerce.
- ◆ Improve enforcement and inspections of large slaughterhouses and food processing facilities.
- ◆ Address traceability of meat from the slaughterhouse to the consumer.
- ◆ Increase testing for BSE, or Mad Cow Disease.

We thank you for your consideration.

Sincerely

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¹ The health problems caused by confinement or industrial management systems have been well documented in the scientific literature. See, e.g., Cravener, T.L., W.B. Roush, and M.M Mashaly, *Broiler Production Under Varying Population Densities*, POULT. SCI. 71(3):427-33 (1992); D. Herenda and O. Jakel, *Poultry Abattoir Survey of Carcass Condemnation for Standard, Vegetarian, and Free Range Chickens*, CAN. VET. J. 35(5):293-6 (1994); T.G. Nagaraja and M.M. Chengappa, *Liver Abscesses in Feedlot Cattle: A Review*, J. ANIM. SCI. 76(1):287-98 (1998); T.G. Nagaraja, M.L. Galyean, and N.A. Cole, *Nutrition and Disease*, VET. CLIN. N. AM. FOOD ANIM. PRAC. 14(2):257-77 (1998); D.H. Tokarnia, J. Dobereiner, P.V. Peixoto, and S.S. Moraes, *Outbreak of Copper Poisoning in Cattle Fed Poultry Litter*, VET. HUM. TOXICOL. 42(2):92-5 (2000)

² United States Government Accountability Office, GAO-05-214, *Homeland Security: Much is being done to protect agriculture from a terrorist attack, but important challenges remain* (Mar. 2005) (hereinafter "GAO Report on Agriculture") at p.6-7.

³ RFID Cost.xls – A spreadsheet to estimate the economic costs of a radio frequency identification (RFID) system, K.C. Dhuyvetter and D. Blasi, Version 7.6.06.

⁴ See User Guide (Dec. 2007) at p.24 (Group/Lot identification may be used for animals that “move through the production chain as a group”).

⁵ See Program Standards and Technical Reference (Feb. 2008) at p.7 (listing an animal event code for reporting “animal missing”).

⁶ See Exotic Newcastle Disease, Information from the Texas Animal Health Commission (Apr. 2004) (“In close confinement, such as commercial operations, the disease can spread like wildfire. ... **However, the virus is destroyed rapidly by dehydration and by the ultraviolet rays in sunlight.**”) (emphasis added).

⁷ News Release, Texas Animal Health Commission (Apr. 1, 2004).

⁸ See Centers for Disease Control and Prevention, http://www.cdc.gov/ncidod/dbmd/diseaseinfo/foodborneinfections_g.htm#mostcommon.

⁹ <http://www.youtube.com/watch?v=kaM7Hpu47FY>

¹⁰ User Guide at p.24.

¹¹ GAO Report on Agriculture at p.1.

¹² See Annalee Newitz, *The RFID hacking underground*, WIRED, www.wired.com/wired/archive/14.05/rfid_pr.html; John Markoff, *Study says chips in ID Tags are vulnerable to viruses*, NEW YORK TIMES (Mar. 15, 2006); Rieback, M.R., B. Crispo and A. Tanenbaum, *Is your cat infected with a computer virus?*, Vrije Universiteit Amsterdam, Computer Systems Group.

¹³ In 1998, ISO received a formal petition calling for revisions or suspension of the standards, and identifying multiple flaws in the ISO 11784/85 standard, including the lack of unique ID codes. See letter from Gosstandrat of Russia, Committee of Russian Federation for Standardization, Metrology and Certification, to Rudolf Zens, Secretary, SC 19 (Mar. 2, 1998) at <http://www.rfidnews.com/images/3-2-98.gif>. See also *The Controversial ISO 11784/85 Standard, ISO 11784/85: A Short Discussion*, at www.rfidnews.com/iso_11784short.html

¹⁴ Genetic Resources Action International (“GRAIN”), *Fowl Play: The Poultry Industry’s Central Role in the Bird Flu Crisis* (Feb. 2006) (hereinafter “GRAIN Report”).

¹⁵ *Bird Flu Crisis: Small farms are the solution, not the problem*, in *Seedling*, GRAIN (July 2006) at p.26 (citing

multiple scientific studies from around the world). **Although pastured poultry are exposed to wild birds, extensive testing of wild birds has only rarely found bird flu in a highly pathogenic form. “Furthermore, the geographic spread of the disease does not correlate with migratory routes and seasons. The pattern of outbreaks follows major roads and rail routes, not flyways.”** *Avian influenza goes global, but don’t blame the birds*, THE LANCET Vol. 6: 185 (Apr. 2006).

¹⁶ E-Digest Volume 2, Number 11, *Issues Faced in the 2002 VA AI Outbreak*; paper presented by Dr. Bill Pierson, at the 2002 Poultry Health Conference sponsored by the Ontario Poultry Industry Council.

¹⁷ GRAIN Report (quoting USDA, *Laos: Poultry and Products—Avian Influenza*, U.S. Department of Agriculture (Mar. 16, 2005)).

¹⁸ USDA, *Integration of Private and State Animal Tracking Databases with the NAIS* (released Apr. 6, 2006).

¹⁹ GAO Report on Agriculture at p.7-9.

²⁰ J.A. Scanga et al, *Development of computational models for the purpose of conducting individual livestock and premises traceback investigations utilizing National Animal Identification System-compliant data*, J ANIM SCI 2007.85:503-211.

²¹ See R. Scott Nolen, *Exotic Newcastle Disease Strikes Game Birds in California*, JOURNAL OF THE AMERICAN VETERINARY MEDICAL ASSOCIATION NEWS (Nov. 15, 2002); News Release, Texas Animal Health Commission (Jan. 1, 2003) (“END likely was initially introduced into Southern California through illegal importation of infected birds.”); Congressman Elton Gallegly, *Smuggling Cockfighting Roosters a Conduit to Bird Flu*, SANTA BARBARA NEWS-PRESS (Dec. 11, 2005).

²² See GAO Report on Agriculture at p.1.

²³ GAO Report on Agriculture at p.6