



FOOD SAFETY RESEARCH: A FOCUS ON

Animal Identification Pilot Program

An animal electronic identification system that uniquely identifies each food animal from birth to slaughter is the first step in providing traceability of meat and meat products from the farm to the table.

A mandatory United States national animal identification plan will protect the safety of the U.S. cattle herd and food supply and track confirmed disease outbreaks within 48 hours.

The National Farm Animal Identification and Records (FAIR) program, active in at least 43 states, unifies animal identification programs and links animal record systems to provide accurate, complete and cost-effective information. This unique pilot program may be used as a model for a mandatory U.S. national animal identification plan. It tracks cattle from birth to slaughter, and has identified nearly one million animals over a five year period since it began in 1999.

Radio Frequency identification (RFID) technology is being used in the National FAIR program to uniquely identify animals with electronic ear tags. The total number of animals identified with RFID is rapidly growing. The number of RFIDs read at packing plants and markets is also growing and in the near future, meat from tagged animals will be



The FAIR program tracks cattle from birth to slaughter with RFID ear tag technology.

tracked through retail markets to provide source verification of meat products.

Source verification includes farm of origin, feedstuffs, feed ingredients, and the chemicals administered to the animals.

The FAIR pilot program validates each animal with a RFID ear tag by checking animals for proper tag location and tag retention. Results from FAIR pilot herds demonstrate that RFID ear tag readability and retention is very high.

National FAIR is administered by the Holstein Association USA, Inc. and supported by USDA/APHIS. For more information about the FAIR pilot program, visit their website at: <http://www.nationalfair.com>.



The AGRITAG® Disk Transponder DTD530 is designed for electronic identification of animals. It can be combined with conventional plastic ear tags to provide transponder ear tags.

RESEARCH AREAS

Improve file transmission process from RFID readers.

Determine balance between automation and human oversight to keep the RFID readers, laptop equipment, phone lines, and file transfer running regularly and seamlessly.

Validate RFID ear tag readability and retention.

GENERAL FACTS

- National FAIR program utilizes a database to identify and track animals with electronic ear tags from birth to slaughter.
- Through the individual animal American Identification Numbering (AIN) system and State Premises Numbers, National FAIR provides the infrastructure and information system that will allow for premises of origin determination, and animal tracking.
- The FAIR database keeps track of the following key information: premises (type of premises, GPS coordinates, etc.); animal ID (species, breed, sex, date of birth, etc.); animals at premises; animal movement; health and performance data.
- An animal with an American ID is uniquely identified throughout the world, and the American ID number can be used by industry and government while the herd management number can be used by the producer for day-to-day herd management.
- By using tamperproof visible ID tags that include an American ID and a herd management number, an animal can be uniquely identified at birth.
- A cost-effective automated system can be put in place to track animals from farm to market, and market to slaughter by incorporating electronic ID.
- Livestock identified in the National FAIR program represent 85 different breeds, seven dairy and 78 beef breeds.

ONLINE RESOURCES

Animal Identification

http://www.aphis.usda.gov/vs/naahps/animal_id/

IDEA Project

<http://idea.jrc.it/pages%20idea/index%20of%20final%20report.htm>

Draft U.S. Animal ID Work Plan - Version 4.0, September 2003

http://usaip.info/US_AIP_Plan_Draft_092903_Ver_4_0_Master_.pdf

Traceability in the U.S. Food Supply

<http://www.ers.usda.gov/Briefing/Traceability/>

National Farm Animal Identification and Records

<http://www.nationalfair.com/>

AGRITAG Transponders

<http://www.agrident.com/english/main.php?pg=23&nr=1>

Country of Origin Labeling

<http://www.ers.usda.gov/features/cool/>

State Officials Weigh in on Animal Identification

<http://www.foodtraceabilityreport.com/ejournals/articles/article.asp?id=80770>

Electronic Identification and Molecular Markers For Improving the Traceability of Livestock and Meat

<http://quiro.uab.es/tracing/>

Traceability for Food Marketing and Food Safety: What is the Next Step?

<http://www.ers.usda.gov/publications/agoutlook/jan2002/ao288f.pdf>

Cattle Tracing Scheme

<http://www.defra.gov.uk/animalh/tracing/cattle/ctsonline.htm>

Traceability of Poultry and Poultry Products

http://www.oie.int/eng/publicat/rt/2002/FALLON_M.PDF

Electronic Identification Pilot Trial in Sheep

<http://www.defra.gov.uk/animalh/tracing/sheep/eid/index.htm>

This fact sheet is one of several information products developed by the Food Safety Research Information Office (FSRIO) at the USDA's National Agricultural Library (NAL). Fact sheets on specific food safety research topics are available on the FSRIO web site at:

<http://fsrio.nal.usda.gov/topics.php>

FSRIO is a unique resource for the food safety research community. The program features a web site that serves as a gateway to research information and includes a database of federally-funded research projects. The database is available for researchers, policymakers, consumers and others to learn about research initiatives, and assist the government in assessing food safety research needs and priorities, thereby minimizing duplication of effort. FSRIO also provides a reference service at no charge.

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