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National Animal Identification

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Animal identification on a group or individual head basis is increasingly being discussed by animal agriculture producers, allied industry associations and governmental officials. While efforts to initiate a national animal identification system date back several years, recent concerns over animal diseases (e.g., foot-and-mouth disease, avian influenza and bovine spongiform encephalopathy) and animal terrorism have greatly accelerated plans in the past year. Serving as the general guideline for the national identification plan is the U.S. Animal Identification Plan (USAIP) developed by an industry, state and federal partnership.

The goal of the USAIP is to control domestic or foreign disease threats by identifying individual animals or groups of animals, the premises where they are located and when they were present on a premise. For control or eradication of an animal health threat, the USAIP’s goal is to conduct traceback of individual animals or groups of animals within 48 hours after discovery of a threat. Implementation of the program, which will be species dependent, will occur through a multi-phase process spanning the next two to three years.

The initial phase of the USAIP for cattle is to identify locations that manage or hold cattle. This Premises ID is targeted for implementation by July 2004. State departments of agriculture are charged with the responsibility to develop a state database of Premises ID numbers that would interact with the National Premises Repository. Livestock producers would then apply to the Agriculture Department for their Premises ID number. The state would verify the producer’s address, request a Premises ID number from the national database and issue a unique 7-character Premises ID number to the producer.

Phase 2 of the USAIP is for individual/group identification of cattle traded in interstate commerce by July 2005, and for intrastate commerce by July 2006. Phase 2 would require that cattle be officially identified, probably with either a visible ID tag or radio frequency identification (RFID) device, and their movement reported to the National Animal Identification Database. Identification and reporting of location/premises by groups of animals rather than individual
animals will likely be possible if the group is not commingled with other animals. Thus, for animals that are born on the same premises, raised together and presented for harvest in the same group, group/lot ID is expected to be sufficient. Individual animal ID will be necessary when animals are commingled and/or group/lot ID is not maintained.

Although the USAIP plan does not mandate specific products or technologies for identification, it is expected that RFID will be the method used to track individual animals. RFID appears to be the most developed and useable technology for electronic ID in practical application. Such a system would involve attaching an RFID tag to the ear of the animal. The ID would then be read by an electronic reader and downloaded to a computer, and ultimately added to the state/national identification database. Likely, producers would be required to have an electronic ID tag and reader, and possibly a computer, software and Internet access for such a system. Research by Dhuyvetter and Blasi at Kansas State University estimate that RFID may cost from $3.99/head for a 1,250-head cow herd to $24.49 for a 63-head cow herd (these costs include electronic tags, readers, computers, software, labor and other fees).

The third phase of the cattle USAIP plan calls for adoption of RFID technology in slaughter plants and state licensed markets by July 2005. Presumably, this would require them to have RFID readers in place and record (and possibly report) the movement of livestock into or through their facility.

The National Premises Repository and National Animal Identification Database will serve as the link between state premises and animal identification databases. These national databases will enable the 48-hour traceback of specific animal(s) to specific premises at certain defined times. Because confidentiality of this data is a concern, three levels of access will likely be established. The minimum level of access would allow a user, such as a seller of ID tags, to verify that a Premises ID number exists. A second level would allow a user to retrieve the address information associated with a Premises ID in order to determine if the Premises ID is the correct one for a producer. The third level would enable a user to search the database by name or address. This higher level of access would probably be limited to state or federal animal health workers. For the lower levels of access, licensed Animal Identification Managers would be granted access in order for them to sell electronic or visual tags or input/submit data on behalf of producers. Several issues still remain to be resolved with the confidentiality of the ID database however. Of particular concern to the livestock industry is whether the data will be available to the public. Future legislative efforts will likely be forthcoming to keep the data out of the public domain in order to assure confidentiality of producers’ records, which will in turn improve producer adoption.

Another question producers often have regarding animal identification is whether it will be mandatory or voluntary. There has not been a clear determination of this point to date. It will probably start as a voluntary program, and some producers and markets will adopt the ID procedures sooner than others. However, for 48-hour traceback to be fully effective for disease containment, a mandatory ID program would probably be necessary. Who would mandate the program, if it were to become mandatory, is still another unanswered question. Livestock buyers (whether feeders or packers) may drive producers to maintain animal IDs and records by requiring it as a condition of purchase. The alternative to such a market-driven approach is government enforcement. The potential benefit to government enforcement is that one uniform system would be promoted. The drawback is that producer acceptance might be lower, especially if the costs outweigh the benefits for producers. Most likely, a mandatory program would include some combination of market/industry and government requirements.

Identifying and tracking every animal (or group of animals) and premises will not be without costs. As indicated above, estimated costs for a cow-calf producer could range from $4-24/head, depending upon herd size. Expected costs for a commercial feedyard are also likely to be significant. Producers will probably have to pay some or all of these costs. Limited research has found that there are consumer segments that are willing to pay a premium for traceability assurance; however, the extent to which results from this market segment would apply to the overall consumer market is not clear, nor whether the potential consumer premiums could fully offset the costs. Legislative efforts to provide funding assistance to support the infrastructure of the national ID program and databases and adoption by producers has also been made. Nebraska’s Senator Hagel introduced a bill in the Senate in February that would direct USDA to implement the USAIP plan and provide $50 million in the first year to provide assistance to producers and other elements of the plan (the bill is currently in the agriculture committee).

Although plans for national animal identification have advanced rapidly in recent months and a workable framework for the program exists, there are several questions and issues yet to be resolved by the industry and government working groups. The comments above reflect the stage of the program’s development outlined in the National Identification Development Team’s December 2003 report. The program will evolve and change in response to new technologies and producer, industry and government input. For current information and resources, including a list of frequently asked questions, visit the official USAIP website at http://www.usaip.info.

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