



2-2005

W053-A Sampling of Thoughts and Opinions on Electronic Identification

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"W053-A Sampling of Thoughts and Opinions on Electronic Identification," The University of Tennessee Agricultural Extension Service, W053-200-2/05 R12-4010-018-001-05 05-0099, http://trace.tennessee.edu/utk_agexani/5

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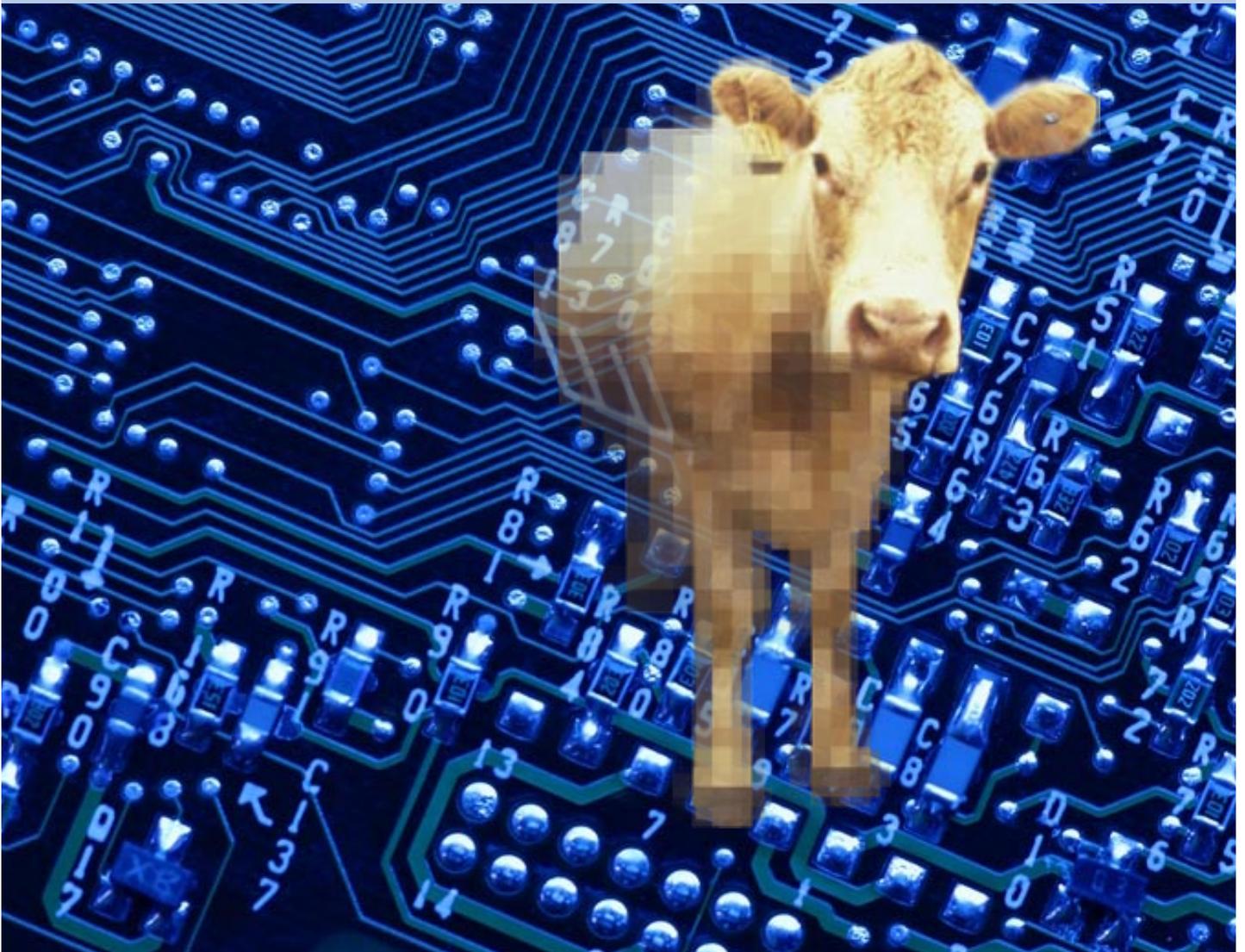
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*A Sampling of
Thoughts and Opinions on*



Electronic Identification

*and Other Information from Cattle Producers Targeted for Participation in the
Upper Cumberland Beef Cattle Marketing Alliance*



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FOREWORD

Over the years, the *Center for Profitable Agriculture* (CPA) has been involved with the USDA "Value-Added Development Grant" (VADG) program in various and numerous ways. In 2003, the Tennessee Farm Bureau Federation submitted a proposal to the VADG program for funding to assist in the development of a beef cattle marketing alliance in a 14-county area of the Upper Cumberland region of Tennessee. The project was funded for implementation through March 2005, and the CPA was included in the project as a cooperating partner.

One of the primary roles of the CPA in the project was to conduct an assessment of thoughts and opinions on electronic identification and other issues from beef cattle producers in the targeted region. This document summarizes a survey conducted of participants in a series of organizational farmer meetings in the region during the late winter and early spring of 2004. The purpose of the survey was two-fold: 1) to evaluate the cattle producers' thoughts and opinions on electronic animal identification and 2) to establish a benchmark of statistical characteristics of the cattle producers targeted as participants in the alliance. The information here will assist the project leaders in assessing potential alliance members' thoughts on electronic identification and other issues.

The report begins with an overview of animal identification and an update on the national animal identification plan, followed by a brief description of the project and results of the survey.

Special appreciation is extended to the project leaders: John Woolfolk, Julius Johnson and Flavius Barker with the Tennessee Farm Bureau Federation and Dan Wheeler with the *Center for Profitable Agriculture*. Appreciation is also extended to Donna Hundley for her layout and design of this report and to the following team of peer reviewers: Darrell Ailshie, Alan Galloway, Emmet Rawls, Wanda Russell and John Woolfolk.

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*This project was conducted in partnership with the Tennessee Farm Bureau Federation,
with funding provided in part from USDA-Rural Development.*



OVERVIEW OF ANIMAL IDENTIFICATION

The methods and reasons for animal identification have a long and varied history. Although varied, the reasons for identifying livestock may be simplified into three general classifications of ownership: disease control, performance and commerce. For cattle, identification is helpful to prove ownership; in cases of disease outbreaks; for recording production performance such as weight gain, nutrition and health programs; and for tracking as the animals move through production and processing channels.

Hot-branding cattle, especially in the western United States, is generally envisioned as a way to claim and substantiate ownership. Additionally, branding, hot or freeze branding, is required by law in some states. Ear tattoos have been a long-standing, accepted means of identification by breed associations. Special tags have been used as a designation of animals having had certain, oftentimes required, vaccinations.

In recent years, interest in identification, specifically interest in a national identification system, has surged for at least two significant reasons: the need for response and follow-up to major livestock disease outbreaks and increased availability of technologically advanced identification systems. One of the components of the technologically advanced systems is the electronic capabilities that have been perfected in recent years. Discussions of a national identification system have most always included an assumption that such a system would be electronic.

Discussions of a national identification system for livestock date back almost three decades¹. Early in 2002, a committee of the National Institute for Animal Agriculture (NIAA) organized a task force that began to develop a National Identification Work Plan. The committee included representatives from more than 30 stakeholder groups. A final draft of the work plan was completed in late 2002, accepted by the U.S. Animal Health Association and endorsed as the guide for development of a national plan². After the May 2003 outbreak of BSE in Canada, progressive efforts on drafting and developing a national system began in earnest. The USDA then established the National Animal Identification Team (NAIT), which is comprised of more than 100 animal and livestock industry professionals from more than 70 associations, organizations and government agencies³. During 2003, the NAIT advanced the work plan into a final draft of the U.S. Animal Identification Plan⁴.

After the first domestic case of BSE in late December 2003, the USDA implemented a plan that would drastically expedite the implementation of a national identification plan for all species of commercial livestock. An overall goal of the national plan is to develop a verifiable system of national identification, which will enhance efforts to respond to animal disease outbreaks more quickly and effectively than in the past.





Additional advantages of electronic identification of cattle include source verification for niche marketing, automated farm production records and ownership verification.

After months of focused planning and developing by numerous subcommittees, in April 2004, a three-phase implementation schedule for the national plan was announced. Phase I would evaluate current, federally-funded, animal identification systems and determine which system(s) should be used for a NAIS, further the dialogue with producers and other stakeholders on the operation of a NAIS, identify staffing needs and develop any regulatory and legislative proposals needed for implementing the system. The first step in the process is to select an interim data repository to handle incoming national premises data. USDA has commissioned an independent analysis of repositories that are currently part of various USDA-funded animal identification projects around the country. Once the system showing the greatest potential for use on a national level is identified, USDA will enter into cooperative agreements with states, Indian tribes and other government entities to assist them in adapting their existing systems to the new system. Phase II would involve the implementation of the selected animal identification system at regional levels for one or more selected species, continuation of the communication and education effort, addressing regulatory needs and working with Congress on any needed legislation. In Phase III, the selected animal identification system(s) would be scaled up to the national level.⁵

The following comments regarding a national EID system have been adapted from the January 2004 handout, available from the USAIP⁶ official Web site.



When fully operational, the national plan will be capable of tracing an animal or group of animals back to the herd or premises that is the most logical source of a disease concern. It will also be able to trace potentially exposed animals that were moved out from that herd or premises. The plan's long-term goal is to accommodate a complete traceback within 48 hours of discovery of a disease. Accomplishment will be dependent on developing a practical yet comprehensive system that collects and records the movement of animals. The identification of premises (production points) is the foundation of the system and must be established before individual animals can be tracked.

The USAIP defines the standards and framework for implementing and maintaining a national animal identification system for the United States. It includes a premises numbering system, an individual and group/lot animal numbering system, and

standards for radio frequency technology used for animal identification.

As of January 2004, the cattle, sheep and swine industries have already developed preliminary implementation plans. All other livestock, including goats, cervids, equine, aquaculture, poultry, llamas and bison, are becoming engaged in the plan. Some features of the plan are common to all species, while others are species-specific.

The infrastructure for individual animal identification will be made available as premises become enrolled in the national system. The system will provide for



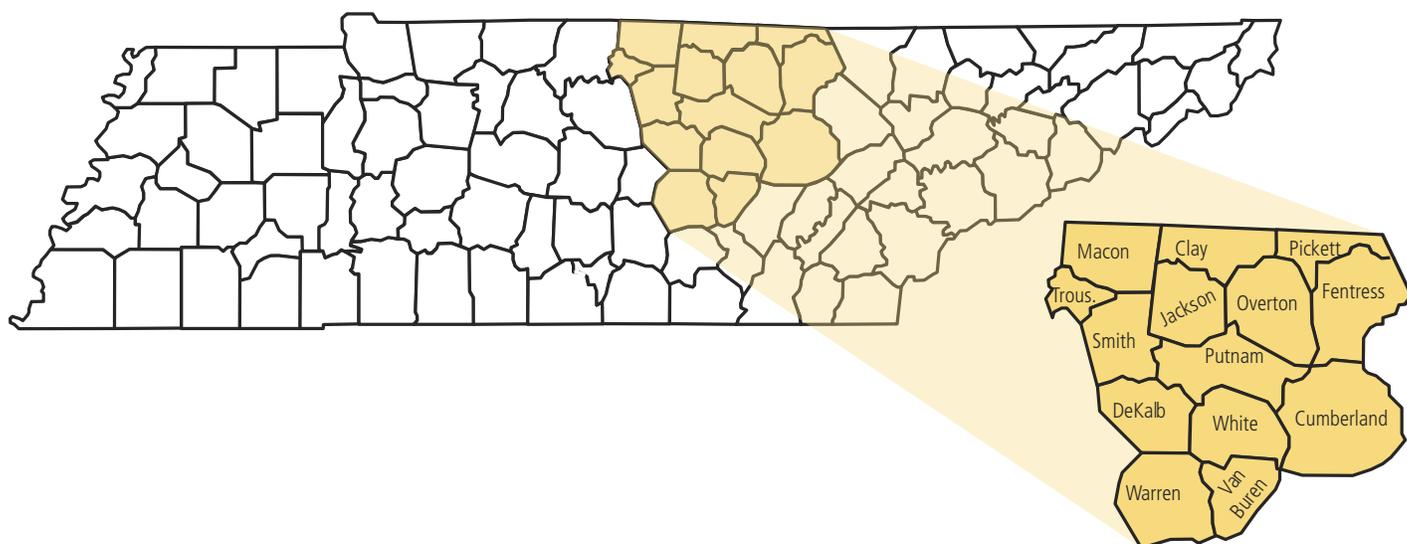
the timely introduction of official ID with the new national numbering system, the U.S. Animal Identification Number. Recording the interstate movements of livestock on the national database is the first priority as animal tracking systems are put in place.

Radio Frequency Identification (electronic ID) is currently the preferred identification method for some types of livestock when individual animal ID will be needed. Other technologies (DNA, retinal imaging, etc.) will be integrated into the USAIP as standards and practical applications of the technology are presented

PROJECT DESCRIPTION

During the late winter and early spring of 2004, leaders of the Upper Cumberland Beef Marketing Alliance program targeted producers from 14 counties for participation in farmer meetings that were held in nine counties. For the most part, attendees at the farmer meetings were identified by various local agricultural leaders as likely participants in an alliance program and early adopters of new and innovative production and marketing trends. The meeting coordinators presented an overview of the alliance project and facilitated discussions with potential alliance members. Figure 1 shows the 14 counties included in the Upper Cumberland alliance region and identifies the counties where the initial farmer meetings were conducted.

Figure 1



At the end of each meeting, farmer participants were asked to complete a 14-question survey. A copy of the survey questionnaire is included in the appendix. The survey was designed to obtain information about the potential alliance members and to help determine how likely they are to utilize an electronic identification tagging system in their cattle operation.



SURVEY RESULTS

During the nine county meetings conducted in the late winter and early spring of 2004, 158⁷ surveys were completed by potential alliance members. The number of cows owned by an individual farmer ranged from 0 to 400 and the number of bulls ranged from 0 to 20. The average number of cows per farm for all the participating producers was 75, and the average number of bulls was 3.4. The average number of cows and bulls per farm varied some among counties, with Overton County having the largest average number of cows per farm with 101 head, and Clay County with the largest average number of bulls per farm of 5.5 head. The meeting in White County had the largest number of participants with 32 and also had the largest number of cows represented.



A summary of the number of participants and the number of cows and bulls owned is presented in Table 1.

Table 1. Summary of the Number of Participants at the Organizational Farmer Meetings and the Number of Cows and Bulls Owned

County Location of Meetings	Number of Participants in Meetings	Number of Cows Owned by Farmers Attending	Number of Bulls Owned by Farmers Attending	Average Number of Cows Per Farm	Average Number of Bulls per Farm
Cumberland	15	1,140	42	76	2.8
Fentress	13	729	26	56	2.0
Putnam	14	777	43	56	3.1
Pickett	13	1,093	44	84	3.4
Clay	16	1,322	88	83	5.5
Dekalb	18	1,353	61	75	3.4
Overton	15	1,521	64	101	4.3
White	32	2,372	125	74	3.9
Smith	22	1,391	69	63	3.1
TOTALS	158	11,808	566	75	3.4

Producers attending the meetings were asked to identify the county in which a majority of their farm was located. With very few exceptions, the county in which the meeting was held was also the home county of farm residence. In the case of the meeting held on April 15, this was actually planned as a multi-county meeting for producers in both Putnam County and Jackson County. Table 2 presents a listing of the number of cows represented at the meetings according to the home county of farm residence. In addition to having cattle in Tennessee, eight of the meeting participants (5.1 percent) indicated that they raise and/or own cattle outside Tennessee.



Table 2. Number of Cows Represented by Producers at the Meetings According to the Home County of Farm Residence

Home County of Farm Residence	Number of Cows Represented by Producers at the Meetings	Number of Beef Cows in County	Percent of Beef Cows in the County Represented by Producers at the Meetings
White	1,885	24,389	8%
Overton	1,521	19,283	8%
Smith	1,391	16,756	8%
Dekalb	1,308	12,808	10%
Pickett	1,278	6,000	21%
Cumberland	1,140	10,410	11%
Clay	1,137	9,000	13%
Fentress	729	9,496	8%
Putnam	726	13,836	5%
Van Buren	447	3,955	11%
Jackson	201	6,473	3%
Warren	45	21,555	0.002%

When asked about facilities for working cattle, 122 cattle producers (77 percent) indicated that they have adequate facilities, while 36 indicated they did not have adequate facilities.

All of the cattle producers indicated they were either interested or may be interested in obtaining cost-share money to help them build adequate working facilities. Specifically, 87 percent of the cattle producers indicated “yes” they would be interested, while the balance of the producers indicated they “may be” interested in such a cost-share program (see Figure 2).

When asked who does the herd work for their cattle, a majority (52 percent) of the cattle producers indicated they do the herd work (including tagging, vaccination, castration). Almost 28 percent of the producers indicated another family member does their herd work, followed by veterinarian, hired help and others. Collectively, almost 80 percent of the producers either do their herd work themselves or have a family member do it (see Figure 3).

When asked if they would have any interest in the future of hiring a professional service with mobile handling facilities to assist with herd work, 56 percent of the cattle producers said “no” while 44 percent said “yes” or “maybe” (see Figure 4).

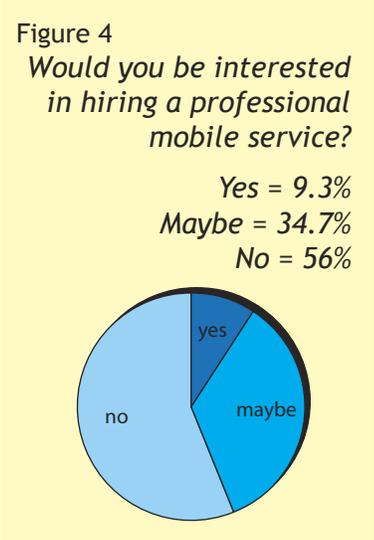
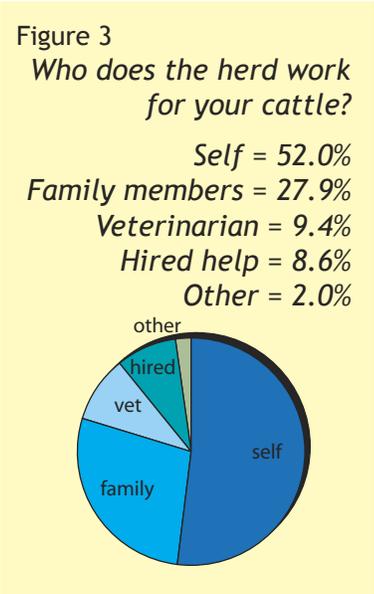
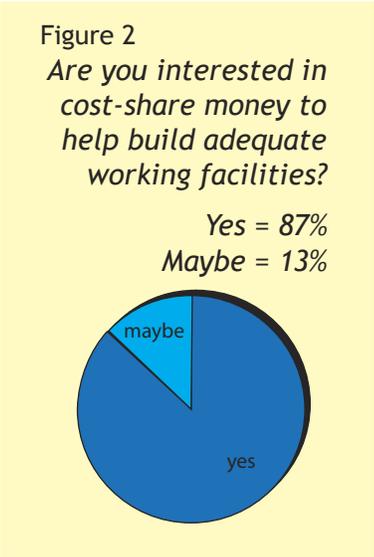
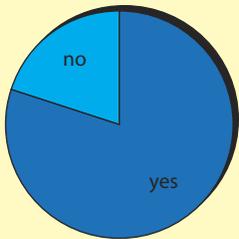




Figure 5
Do you have an identification system for your cows/bulls?

yes = 80%
no = 20%



The following statement was printed on the survey questionnaire distributed at the farmer meetings.

"For the purpose of this questionnaire, EID refers to a complete animal identification system consisting of an animal ear tag which can be scanned electronically to identify an individual animal to a central location where information will be recorded regarding the animal's location in commerce. As a cow-calf producer, a national EID system would require that you purchase a specific tag with a unique individual animal identifier and place it on the ear of each animal. This "electronic" tag can then be scanned every time the animal enters a level of commerce (markets, feedlots, processing). A mandatory national EID system would allow for a quick trace-back history on each animal in the event of animal disease outbreaks or for issues concerning public health."

Figure 5
Do you have an identification system for your calves?

yes = 60%
no = 40%



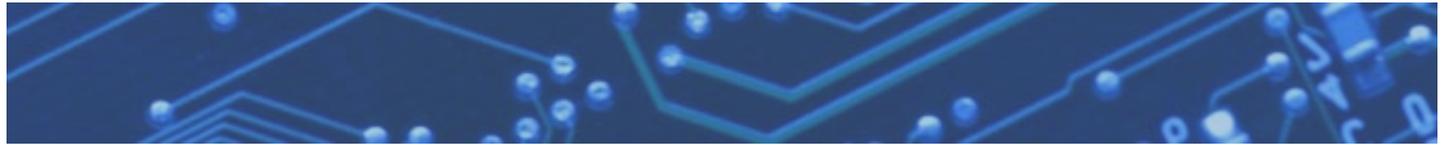
As seen in Figures 5 and 6, eighty percent of the cattle producers indicated they identify the cows and/or bulls in their cattle herd with some type of identification system, while only 60 percent identify their calves in some way. Three out of four (75 percent) of the producers who identify their cows/bulls also identify their calves. The producers who identify their calves in some way were almost evenly split between whether they identify them at birth or later, with 49 percent indicating identification at birth and 51 percent indicating later (see Figure 7).

Of the types of animal identification used, more than three-fourths (77.4 percent) of the cattle producers indicated they used "plastic ear tags" as the identification method for their cattle. Plastic ear tags were followed by tattooing, branding, EID and other (see Figure 8).

Figure 7
When do you identify your calves?

At birth = 49%
Later = 51%





Cattle producers were asked to rate on a scale of 1 to 10 how much they know about available EID systems. The rating scale was set up where 1 represents no understanding and 10 represents perfect understanding. While responses ranged from 0 to 10, the average of all ratings was 4.23.

Twenty producers (13 percent) rated their understanding of EID as an 8 or better. This 13 percent of all producers accounted for 21 percent of the total number of cows in the survey. The farmers rating their understanding of EID as an 8 or better averaged 122 cows per farm. This may imply that producers who currently have a higher level of understanding of EID systems have a larger number of cows.

Fifty-five farmers (35 percent) rated their understanding of EID systems as less than 3. This 35 percent of the producers represents 31 percent of the total number of cows in the survey. This group of producers rating their understanding of EID as a 3 or less averaged 67 cows per farm.

Producers were asked to indicate whether they felt a national EID system for cattle was important to future consumer acceptance of beef. This issue was addressed on a 1 to 10 scale, where a 10 was indicative of a national EID system being very important to consumer acceptance of beef and a 1 indicated that EID was of no importance. Responses ranged from 1 to 10 and the overall average rating was 7.94. Sixty-two percent of the producers rated the importance of a national EID system to future consumer acceptance of beef as an 8 or higher. Thirty percent of all producers rated the importance as a 10. Only five producers (3 percent) rated it with a 3 or less.

Producers were asked to indicate how supportive or skeptical they would be of a national EID system. This indication was based on a 1 to 10 scale, where a rating of 10 indicated very supportive and a rating of 1 indicated very skeptical. Responses ranged from 1 to 10, with an average rating of 7.07. More than half (52 percent) of the producers rated their support of a national EID system as an 8 or greater, while 28 percent of all the producers rated their support as a 10. Only six producers (3.8 percent) rated their level of support as a "3" or less.

Producers were also asked whether their participation in a beef marketing alliance would be affected if the alliance required EID. As seen in Figure 9, a heavy majority (79 percent) of the producers indicated an EID requirement would not prevent them from participating in the alliance, while 17 percent indicated an EID requirement might prevent them from participation. Only 4 percent of the producers said it would definitely prevent their participation in the alliance.

Figure 8
What type of animal identification do you use?

Tattoo = 14.2
Brand = 5.4
Plastic Ear Tag = 77.4
EID = 1.8
Other = 1.2

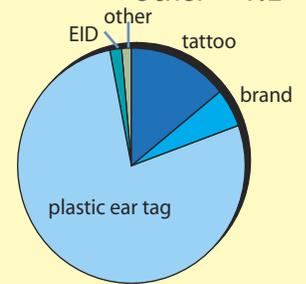
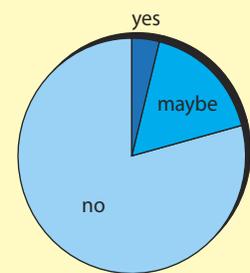


Figure 9
If EID is a required part of a marketing alliance program, would that prevent you from participation in the alliance?

Yes = 4%
Maybe = 17%
No = 79%





SUMMARY

During the late winter and early spring of 2004, leaders of the Upper Cumberland Beef Marketing Alliance program conducted organizational meetings with farmers from the 14 project counties. During these meetings, 158 surveys were completed by potential alliance members.

Among other issues, cattle producers were asked about their cattle working facilities, who does their herd work, how they currently identify their cattle and how they feel about a national cattle identification system. Seventy-seven percent of those participating in the survey indicated they have adequate cattle-working facilities and 52 percent indicated they do the herd work for their cattle. Eighty percent of the cattle producers indicated they identify the cows and/or bulls in their cattle herd with some type of identification system, while only 60 percent identify their calves in some way. Using a 10-point scale, where 10 is very important/supportive, 30 percent of the producers rated the importance of a national EID system to consumers as a 10 and 52 percent rated their support of a national EID system as an 8 or greater.

The results of this study help evaluate cattle producers' thoughts and opinions on electronic animal identification and establish a benchmark of statistical characteristics of the cattle producers targeted as participants in the Upper Cumberland Beef Cattle Marketing Alliance.

BEEF PRODUCER SURVEY

We are trying to determine if beef cattle producers in the Upper Cumberland are prepared to use an electronic identification (EID) tagging system. A proposed national system would require every cow calf producer tag each individual animal with a unique identifier tag. This "electronic" tag will be scanned every time the animal enters a level of commerce (markets, feedlots, processing). A national EID system will allow for a quick trace-back history on each animal in the event of animal disease outbreaks or for issues concerning public health.

Your participation in this survey is voluntary and your responses are anonymous.

- 1) In which Tennessee county is a majority of your farm located? _____
- 2) Do you, either now or usually, raise or own cattle outside of Tennessee? ____ Yes ____ No
- 3) Approximately how many brood cows are in your herd? _____ how many bulls? _____
- 4) Do you identify your adult cows and bulls with some identification system? ____ Yes ____ No
- 5) Do you identify your calves? ____ Yes ____ No If yes, are calves identified at birth ____ later ____.
- 6) Which of the following animal identification systems do you currently use? Check all that apply.
 ____ Tattoo ____ Brand ____ Plastic Ear Tag
 ____ Electronic Ear Tag ____ None
 ____ Other (list) _____
- 7) On a scale of 1 to 10 (where 1 = no understanding and a 10 = perfect understanding) how familiar are you with EID systems now on the market? Circle number

No understanding		Perfect Understanding
1 2 3 4 5 6 7 8		9 10
- 8) On a scale of 1 to 10 (where 1 = not important at all and 10 = very critical) how important do you feel a standard EID system for cattle is to consumer acceptance of beef in the future?

Not important at all		Very important
1 2 3 4 5 6 7 8		9 10
- 9) Generally speaking, (on a scale of 1 to 10) are you Very Skeptical or Very Supportive of a national EID system for cattle?

Very Skeptical		Very Supportive
1 2 3 4 5 6 7 8		9 10
- 10) If utilization of an EID system were a required part of a marketing alliance program, would that prevent you from participation in the alliance? ____ Yes ____ No ____ Maybe
- 11) Do you have adequate cattle working facilities that allow you to work your cattle properly?
 ____ Yes ____ No If no, would you be interested in building working pens on your farm if cost share funds were available? ____ Yes ____ No ____ Maybe
- 12) Who does your herd work, including tagging, vaccinations and castrations?
 ____ self ____ family members ____ hired help ____ vet ____ other
- 13) If your cattle are not worked on your farm, where are they most often worked?
 ____ Neighbor's farm ____ Vet's office ____ other (please describe _____)
- 14) Would you have any interest in hiring a professional service with mobile facilities to assist with future herd work on your farm? ____ Yes ____ No ____ Maybe



Endnotes

- ¹ "US Animal Identification Plan," developed by the National Identification Development Team, Version 4.0, September 29, 2003, page 7.
- ² "Development of national animal identification plan moving forward," an article published in the Spring 2003 issue of *Animal Agriculture* (the official newsletter of the National Institute for Animal Agriculture).
- ³ "Frequently Asked Questions," Web site of the US Animal Identification Plan, <<http://www.usaip.info/>>.
- ⁴ USAIP Background Handout - January 2004, Web site of the US Animal Identification Plan, <<http://www.usaip.info/>>.
- ⁵ "Veneman Announces Framework and Funding for National Animal Identification System," USDA News Release, April 27, 2004.
- ⁶ USAIP Background Handout - January 2004, Web Site of the US Animal Identification Plan , <<http://www.usaip.info/>>.
- ⁷ The 158 completed surveys do not represent a random sample; the surveys only represent the cattle producers attending the meetings and are not a statistical sampling of all cattle producers in the region.

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W053-200-2/05 R12-4010-018-001-05 05-0099

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