



## Cattle Identification Practices on U.S. Beef Cow-calf Operations

The U.S. Department of Agriculture's National Animal Health Monitoring System (NAHMS) conducted the Beef 2007-08 study, which focused on beef cow-calf health and management practices in 24 States<sup>1</sup>. These major beef cow-calf producing States represented 79.6 percent of U.S. operations with beef cows and 87.8 percent of U.S. beef cows.

One of the goals of the Beef 2007-08 study was to collect information on cattle identification (ID) practices and to evaluate the use of standardized premises and animal ID methods consistent with the National Animal Identification System (NAIS) voluntary program. NAIS is a State-Federal-industry partnership<sup>2</sup> designed to help producers and animal health officials respond quickly and effectively to animal disease events in the United States.

During the Beef 2007-08 study, beef producers were asked about the methods they used to identify individual cows and calves (in which each animal has its own unique ID) as well as the methods used to identify cows that belong to their herds (in which all cows have the same ID). Producers were provided a list of possible types of identification for uniquely identifying their herds or individual cattle or calves, and given the option to report other types of ID not listed<sup>3</sup>. More than one ID method could have been used on the same cow or calf. For example, if an electronic ear tag was used, both the ear tag and electronic ID were reported.

### Individual ID

Two-thirds of operations (66.1 percent) used some form of individual animal ID on at least some cows. Overall, 79.1 percent of all beef cows in the 24 states surveyed were individually identified by one or more methods. Plastic ear tags were the most common form of individual ID for cows (50.4 percent of operations and 57.5 percent of cows), followed by brucellosis tags (24.2 percent of operations and 38.1 percent of cows) [table 1]. Use of any individual animal ID on cows was

<sup>1</sup>States:

Alabama, Arkansas, California, Colorado, Florida, Georgia, Idaho, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Texas, Virginia, and Wyoming.

<sup>2</sup>For more information on NAIS, visit <https://www.aphis.usda.gov/traceability/downloads/NAIS-UserGuide.pdf>

<sup>3</sup>Hot-iron brand, freeze brand, ear notch, electronic tag, other tags, or tattoos.

strongly related to herd size, with 89.1 percent of operations with 200 or more cows having some form of individual ID compared with 59.3 percent of operations with 1 to 49 cows.

Nearly half of operations (46.7 percent) used at least one form of individual animal ID on calves, which accounted for 64.8 percent of calves being individually identified. Plastic ear tags were by far the most common individual animal ID method used for calves (37.7 percent of operations and 50.2 percent of calves). A similar pattern was seen in the use of individual animal ID for calves by herd size as was seen for cows. A higher percentage of large operations had some form of individual animal ID for calves than smaller operations.

**Table 1. Percentage of Operations and Percentage of Cows, by Type of Individual Animal ID Used**

Individual ID Type	Percent Operations	Percent Cows*
Hot-iron brand	12.2	20.5
Freeze brand	2.4	3.9
Ear notch	4.8	9.8
Electronic ID or microchip responder	0.8	1.2
Brucellosis vaccination ear tag (Bang's tag)	24.2	38.1
Other metal ear tag	1.6	2.1
Plastic ear tag	50.4	57.5
Ear tattoo (other than for brucellosis vaccination)	8.1	7.7
Other method	0.7	0.9
Any identification	66.1	79.1

\*Percentage of all beef cows in the 24 States studied.

### Herd ID

Only 40.4 percent of operations used some form of herd ID. Overall, 61.3 percent of all cattle and calves had some form of herd ID. Hot-iron brand was the most common form of herd ID (44.8 percent of cattle and calves), followed by plastic ear tags (27.6 percent of cattle and calves) [table 2.] Use of a form of herd ID was more common among large operations—77.8 percent of operations with 200 or more cows, compared with 31.4 percent of operations with 1 to 49 cows.

Use of any form of herd ID was more common in the West region (74.3 percent of operations) compared the Central and South Central regions (42.5 and 49.5 percent of operations, respectively). In the West region, 84.8 percent of cattle and calves had some form of herd ID, whereas in the Central and South Central regions, 61.5 and 65.7 percent of cattle and calves, respectively, had some form of herd ID. Use of a hot-iron brand was much more common among operations in the West region (71.4 percent) compared with the South Central region, which had the next highest percentage of operations (34.0 percent) that used a hot-iron brand.

**Table 2. Percentage of Operations and Percentage of Cattle and Calves, by Type of Herd ID Used**

Herd ID Type	Percent Operations	Percent Cattle and Calves*
Hot-iron brand	23.8	44.8
Freeze brand	1.1	1.0
Ear notch	7.8	16.2
Electronic ID or microchip responder	0.2	0.6
Metal ear tag other than Bang's	1.0	1.1
Plastic ear tag	20.4	27.6
Ear tattoo (other than for brucellosis vaccination)	2.6	3.2
Other method	0.2	0.4
Any identification	40.4	61.3

\*Percentage of all cattle and calves on beef operations in the 24 States studied.

### Participation in NAIS

Overall, 16.0 percent of operations had a unique NAIS premises ID assigned by their State Department of Agriculture. Having a premises ID was more common among large operations—29.7 percent of operations with 200 or more cows, compared with only 11.7 percent of operations with 1 to 49 cows (table 3).

**Table 3. Percentage of Operations with a Premises ID, by Herd Size**

Percent Operations				
Herd Size (Number of Beef Cows)				
1-49	50-99	100-199	200 or More	All Operations
11.7	25.1	27.5	29.7	16.0

Similar percentages of operations in each of the regions had a unique NAIS premises ID (table 4).

**Table 4. Percentage of Operations with a Premises ID, by Region**

Percent Operations			
Region			
West	Central	South Central	East
14.7	20.2	11.6	17.1

Once an operation has been assigned a unique premises ID by its State Department of Agriculture, it can obtain officially recognized individual animal ID, as outlined by the U.S. Animal Identification Number (AIN) guidelines. Of those operations with a premises ID, about 1 of 10 (9.6 percent) had implemented an individual animal ID system utilizing the AIN guidelines from the NAIS (table 5).

**Table 5. Percentage of Operations with a Premises ID that had Implemented an Individual ID System Using AIN Guidelines, by Herd Size**

Percent Operations				
Herd Size (Number of Beef Cows)				
1-49	50-99	100-199	200 or More	All Operations
6.8	5.5	18.8	22.6	9.6

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