Highlights of NAHMS Dairy 2002: Part III

In 2002, the National Animal Health Monitoring System (NAHMS) conducted a study of dairy operations in the United States. The Dairy 2002 study was conducted in 21 major dairy States and was designed to provide information to both participants and industry from operations representing 82.8 percent of U.S. dairy operations and 85.5 percent of U.S. dairy cows. Data were collected between February 25 and April 30, 2002.


- The highest percentage of producers (54.6 percent) knew some basics about foot-and-mouth disease. Anthrax was recognized by name only by most producers (54.0 percent). The industry’s awareness of Johne’s disease has increased over the last few years due to concentrated efforts to educate producers and control the disease (Figure 1).

![Figure 1. Percentage of Operations by Level of Familiarity with Johne's Disease (Paratuberculosis)](image)

- Disease exclusion management practices regarding visitors, employee travel, and cattle source also were evaluated by herd size. The percentage of operations using these practices at the time of the interview increased as herd size increased (Figure 2).

![Figure 2. Percent of Operations that Used Guidelines (at the Time of the Interview and 2 Years Previously) that Determined Which Visitors were Allowed in Animal Areas, by Herd Size](image)

- Dairy 2002 producers were asked to identify the category of bulk tank somatic cell count (BTSCC) that best described the average BTSCC for milk shipped during the 90 days prior to the interview. Overall, the highest percentage of operations (34.5 percent) had an average BTSCC of 200,000 to 299,000. The next highest averaged BTSCCs of 100,000 to 199,000 (23.6 percent of operations) followed by 300,000 to 399,000 (21.7 percent of operations). Only 2.4 percent of operations had an average BTSCC of less than 100,000, while 2.7 percent had an average BTSCC of 600,000 or more.
The percentage of lameness cases was similar across all herd sizes, with 20.4 percent of cows and 8.1 percent of bred heifers (as a percentage of cow and bred heifer inventory) having a case of lameness during the 12 months prior to the interview.

Over half of all lameness cases on U.S. dairy operations were attributed to digital dermatitis (hairy-heel warts). Producers reported that 53.9 percent of lameness cases in cows and 61.8 percent of lameness cases in bred heifers were due to digital dermatitis.

Cull rates across the United States, which include cow deaths for Dairy Herd Improvement Association calculations, are generally reported to be between 30 and 35 percent. For Dairy 2002, 24.9 percent of cows were reported culled in 2001. (This percentage does not include cow deaths.) Large operations culled a larger percentage of cows (27.6 percent) than medium or small operations (23.5 and 23.3 percent, respectively).

Days in milk at time of culling is a predictor of forced versus unforced culls. Cows early in lactation are more likely to be forced culls, while later lactation animals are usually unforced culls. The majority of cows (60.3 percent) were culled at 200 or more days in milk. Approximately a fourth of cull cows (24.1 percent) were culled from 50 to 199 days in milk, while 15.6 percent were culled at less than 50 days in milk. Large and medium operations culled more cows (17.2 and 16.7 percent, respectively) at less than 50 days in milk compared to small operations (12.2 percent). Regional differences by days in milk at time of culling were negligible.

Milkers can transfer mastitis-causing pathogens from their hands to the teats of noninfected cows. To help prevent pathogen transfer, it is recommended that milkers wear latex or nitrile gloves during milking. Only 32.9 percent of operations reported that milkers wore gloves to milk all cows.

Vaccines against coliform mastitis and *Salmonella* have been shown to decrease the incidence and severity of mastitis caused by gram-negative bacteria. The percentage of operations that reported giving coliform mastitis vaccines to a majority of cows during 2001 was 35.8 percent, which accounted for 57.1 percent of all cows. Only 10.4 percent of operations representing 20.6 percent of cows administered *Salmonella* vaccine to the majority of cows.

*Mycoplasma* is a contagious organism transferred from cow to cow that can cause mastitis. Diagnosis requires special culture techniques. There is no effective treatment. Only 8.7 percent of operations were fairly knowledgeable about the disease, while 22.9 percent had never heard of it. Less than half of operations (46.6 percent) recognized *Mycoplasma* by name only.

Over three-fourths of operations (76.6 percent) did not use antibiotics in rations for weaned dairy heifers during the 12 months prior to the interview. Less than a fifth of operations (17.5 percent) included antibiotics in heifer rations, and 2.0 percent did not know if antibiotics were included in heifer rations. Judicious use of antibiotics helps prevent the development of pathogens resistant to antimicrobials.

Overall, 75.2 percent of operations treated 100.0 percent of cows with dry cow intramammary antibiotics at the time of drying-off. Almost 6 percent of operations did not treat any cows with this type of antibiotic at drying-off.

For more information, contact:

USDA/APHIS:VS:CEAH
NRRC Building B, M.S. 3E7
2150 Centre Avenue
Fort Collins, CO 80526-8117
970.494.7000
E-mail: NAHMSweb@aphis.usda.gov
http://www.aphis.usda.gov/nahms

#N418.1203

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital status or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA’s TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

Mention of companies or commercial products does not imply recommendation or endorsement by the U.S. Department of Agriculture over others not mentioned. USDA neither guarantees nor warrants the standard of any product mentioned. Product names are mentioned solely to report factually on available data and to provide specific information.