



U.S. Feedlot Processing Practices for Arriving Cattle

Feedlots receive cattle from throughout the United States and provide the animals with high-energy diets to grow them to an acceptable size with an appropriate degree of finish for the slaughter market. Cattle arriving at a feedlot are usually processed on arrival to ensure their health and productivity while in the feedlot. Processing commonly consists of vaccination, parasite control, application of growth promoting implants, and other procedures such as dehorning, castration, treatment to abort pregnancy in heifers, and application of animal identification. Depending on their arrival weight, cattle may spend anywhere from a few months to nearly a year in a feedlot. Typical feedlot stays are slightly less than 6 months.

The U.S. Department of Agriculture's National Animal Health Monitoring System (NAHMS) conducted the Feedlot 2011 study, an in-depth look at large feedlots (1,000 head or more capacity) in 12 States¹ and small feedlots (fewer than 1,000 head capacity) in 13 States.² This information sheet describes processing practices for cattle arriving on large and small feedlots.

Large feedlots accounted for 82.1 percent of the January 1, 2011, inventory in all U.S. feedlots but only 2.8 percent of all feedlots. The 12 participating States accounted for over 95 percent of the inventory in large feedlots (NASS, "Cattle on Feed" February 18, 2011).

Small feedlots accounted for 16.0 percent of the inventory in all U.S. feedlots and 92.9 percent of all U.S. farms with cattle on feed. The 13 participating States accounted for 85.4 percent of U.S. farms with fewer than 500 cattle on feed and 90.5 percent of the inventory on farms with fewer than 500 cattle on feed (NASS, 2007 Census of Agriculture).

As part of the NAHMS Feedlot 2011 study, data were collected on processing practices for arriving cattle.

¹ Arizona, California, Colorado, Idaho, Iowa, Kansas, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, Washington.

² Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, Ohio, Pennsylvania, South Dakota, Texas, Wisconsin.

Timing of initial processing

Large feedlots

Large feedlots were divided into two groups: those with a capacity of 1,000 to 7,999 head and those with a capacity of 8,000 or more head. Overall, 96.8 percent of all large feedlots processed arriving cattle as a group. Nearly two-thirds of cattle placed (60.7 percent) were processed in the first 24 hours after arrival (table 1). Only 0.4 percent of arriving cattle on large feedlots were not processed as a group. A higher percentage of cattle in feedlots with a capacity of 1,000 to 7,999 head were processed more than 24 hours after arrival than cattle in feedlots with a capacity of 8,000 or more head (49.3 and 36.7 percent, respectively). Feedlots may delay processing of some cattle based on the cattle's condition at arrival, weather, or the availability of labor.

Table 1. For large feedlots, percentage of arriving cattle and calves initially processed as a group, by number of hours after arrival* animals were processed, and by feedlot capacity

Number of hours	Percent Cattle and Calves Feedlot Capacity (number head)		
	1,000– 7,999	8,000 or more	All large feedlots
24 or less	48.9	63.1	60.8
25–72	35.2	31.8	32.3
72 or more	14.1	5.0	6.5
Not processed	1.8	0.1	0.4
Total	100.0	100.0	100.0

*From July 1, 2010, through June 30, 2011.

Small feedlots

Small feedlots were divided into two groups: those with a capacity of 1 to 499 head and those with a capacity of 500 to 999 head. Overall, 60.0 percent of all small feedlots processed arriving cattle as a group, and 83.4 percent of cattle placed were processed as a group. About one-third of cattle placed on small feedlots (33.7 percent) were processed in the first 24 hours after arrival (table 2).

Table 2. For small feedlots, percentage of arriving cattle and calves initially processed as a group, by number of hours after arrival* animals were processed, and by feedlot capacity

Number of hours	Percent Cattle and Calves Feedlot Capacity (number head)		
	1-499	500-999	All small feedlots
24 or less	26.7	52.9	33.7
More than 24	53.7	38.8	49.7
Not processed	19.6	8.3	16.6
Total	100.0	100.0	100.0

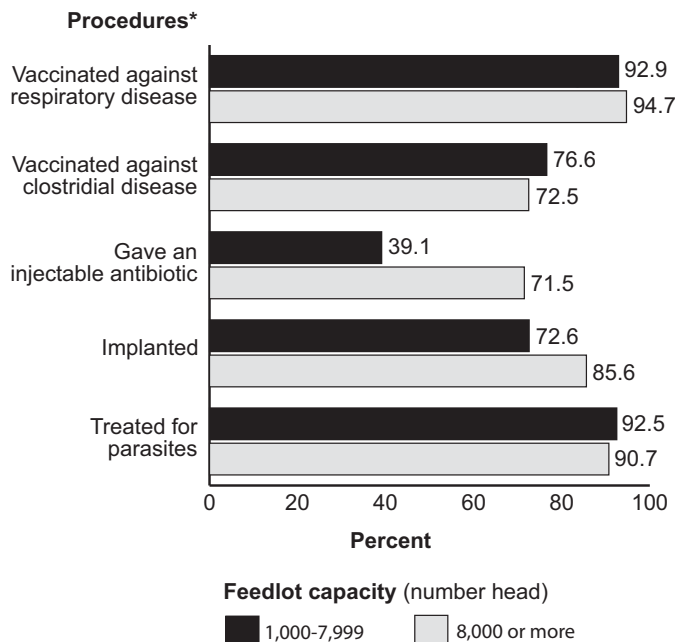
*From July 1, 2010, through June 30, 2011.

Procedures used during processing

Large feedlots

Over 9 of 10 large feedlots vaccinated at least some arriving cattle for respiratory disease or treated some cattle for parasites during initial processing. A higher percentage of feedlots with a capacity of 8,000 or more head (71.5 percent) injected some arriving cattle with an antibiotic during initial processing compared with feedlots with a capacity of 1,000 to 7,999 head (39.1 percent) [figure 1].

Figure 1. For large feedlots that processed arriving cattle as a group, percentage of feedlots by procedures used at initial processing for at least some cattle, and by feedlot capacity

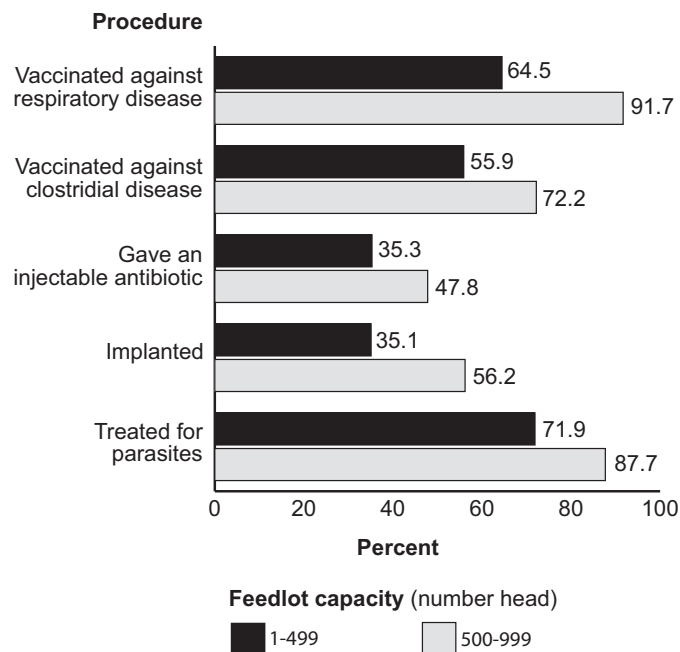


*Procedures were used for at least some arriving cattle, but not necessarily all arriving cattle.

Small feedlots

A higher percentage of feedlots with a capacity of 500 to 999 head (91.7 percent) vaccinated at least some arriving cattle against respiratory diseases at initial processing compared with feedlots with a capacity of 1 to 499 head (64.5 percent) [figure 2].

Figure 2. For small feedlots that processed arriving cattle as a group, percentage of feedlots by procedures used at initial processing for at least some cattle, and by feedlot capacity



*Procedures were used for at least some arriving cattle, but not necessarily all arriving cattle.

Tailoring processing procedures

Large feedlots

The decisions of when to administer an antibiotic or vaccination and which products to use are often based on factors such as the current state of the animals or the animals' management history. Producers were asked if they modified their antibiotic or vaccination procedures when processing new arrivals and if modifications were based on criteria such as arrival weight, distance transported, percent shrinkage, source of cattle, preconditioning, cattle breed (dairy as opposed to beef), and history of previous antibiotic treatments. About half of large feedlots that initially processed animals as a group modified their antibiotic or vaccination procedures based on one or more of these criteria (table 3).

Small feedlots

About 2 of 10 small feedlots that processed animals initially as a group modified their antibiotic or vaccination procedures based on any of the criteria listed in table 3. All of the listed criteria were used by some feedlots, and apparently no one criterion was used by all feedlots that modified their procedures. The most commonly used criteria were arrival weight, preconditioning, history of previous antibiotic treatment, and source of cattle.

Table 3. For small and large feedlots that processed arriving cattle as a group, percentage of feedlots that modified antibiotic or vaccination procedures when processing new arrivals¹, by criteria and by feedlot capacity

Criteria ²	Percent Operations			
	Feedlot Capacity (number head)			
	Small (fewer than 1,000)		Large (1,000 or more)	
	Anti- biotic	Vaccina- tion	Anti- biotic	Vaccina- tion
Arrival weight	11.8	13.4	42.7	35.8
Distance transported or percent shrinkage	1.5	2.2	25.9	22.2
Source of cattle	5.9	5.7	42.3	39.6
Preconditioning	9.7	8.6	36.0	39.0
Dairy cattle breed (compared with beef breeds)	1.1	1.0	7.9	9.5
History of previous antibiotic treatment	7.1	6.3	29.9	26.0
Any of the above	56.4	54.1	19.6	19.7

¹ During the year ending June 30, 2011

² Feedlots that did not modify procedures include those for which the criteria did not apply.

Summary

Processing arriving cattle is used to ease the transition of the animals into the feedlot environment and to ensure their subsequent health and productivity. Regardless of feedlot size, over 80 percent of cattle placed were processed as a group after arrival at the feedlot. The two most common management practices used for initial processing were vaccination for respiratory disease and treatment for parasites. About 5 of 10 large feedlots and 2 of 10 small feedlots modified their antibiotic or vaccination procedures during processing new arrivals based on criteria such as the current state of the animals or the animals' management history.

For more information, contact:

USDA:APHIS:VS:CEAH
 NRRRC Building B, M.S. 2E7
 2150 Centre Avenue
 Fort Collins, CO 80526-8117
 970.494.7000
 E-mail: NAHMS@usda.gov
<http://www.aphis.usda.gov/naahms>

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