United States
Department of
Agriculture

Animal and
Plant Health
Inspection
Service

Veterinary
Services

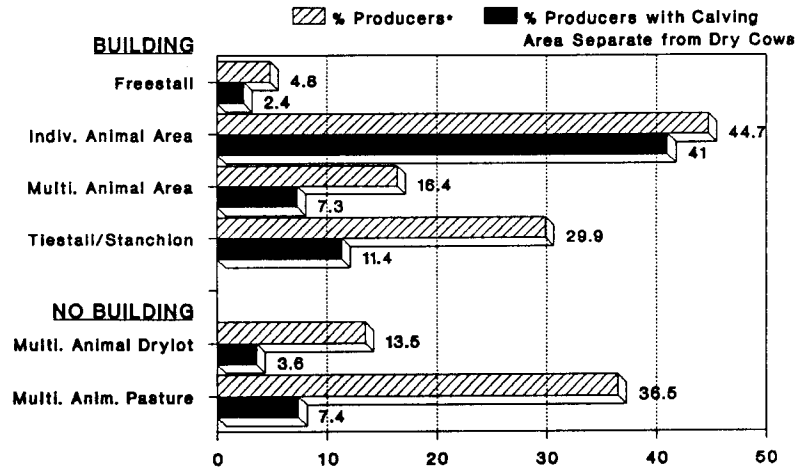
Maternity Hygiene for Dairy Cows

National Dairy Heifer Evaluation Project

The dairy producer's management of the maternity pen is an important aspect of the operation's overall well-being. The maternity pen is where most calves begin their lives on the farm and is often where the dairy cow is located during the onset of lactation.

Several topics covered during a 1991-92 study by the National Animal Health Monitoring System (USDA:APHIS:VS) were devoted to management of the maternity pen. The National Dairy Heifer Evaluation Project (NDHEP) included 1,811 operations in 28 states.[1] These operations were randomly chosen so that the results would be representative of herds of 30 cows or more in the 28 states. The herds represent 78 percent of the National dairy cow population. Nearly 1,200 producers contributed information on maternity hygiene practices.

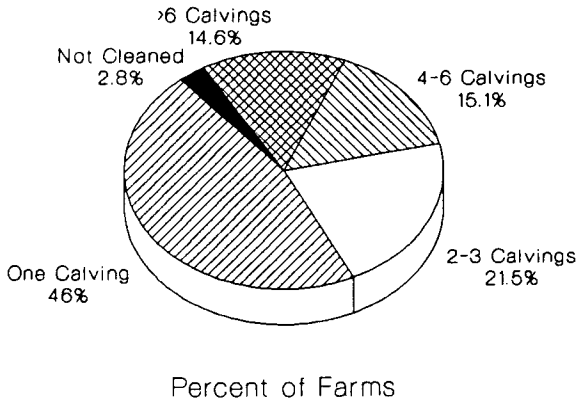
Figure 1. Locations Dairy Calves Are Born on the Farm



*Producers may have reported births at more than one location.

A variety of calving areas are used on dairy farms as shown in Figure 1. The percentages of operations with the calving area separate from other dry cows are shown in the dark bars. Note that producers may have designated more than one location for calf births. Individual animal areas within buildings and multiple animal areas in pastures are commonly used for maternity pens. Nearly one-third of the producers use tiestalls or stanchions. It is interesting to note that several of these areas house multiple animals.

Figure 2. Number of Calvings in Individual Animal Maternity Pens Between Cleanings



Percent of Farms

The number of calvings that occur before a producer cleans the individual area maternity pen is shown in Figure 2. Nearly one-half of the producers clean the pens after every calving; two-thirds clean them after one to three births. Such data were collected on each calving area shown in Figure 1 and are available with the detailed NDHEP results.

[1]States participating in the National Dairy Heifer Evaluation Project (NDHEP): Alabama, California, Colorado, Connecticut, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nebraska, New Hampshire, New York, North Carolina, Pennsylvania, Ohio, Oregon, Rhode Island, Tennessee, Vermont, Virginia, Washington, and Wisconsin.

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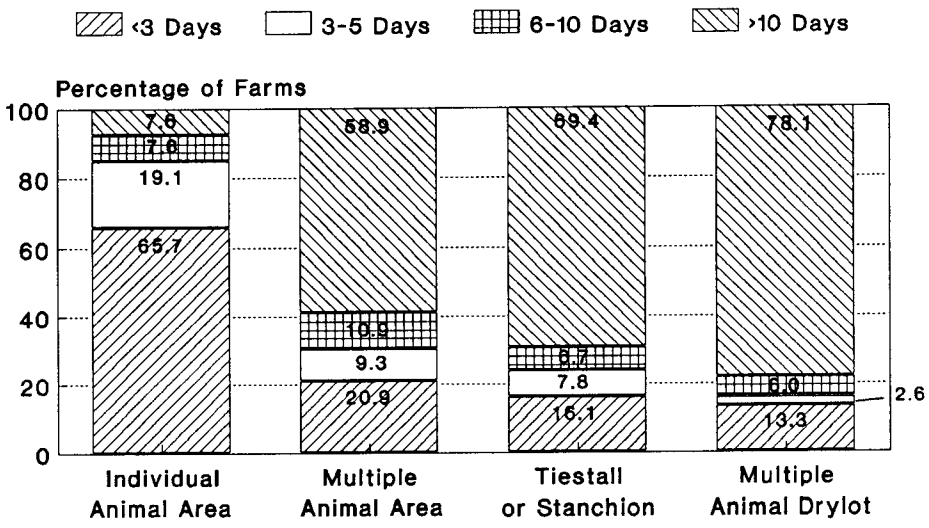
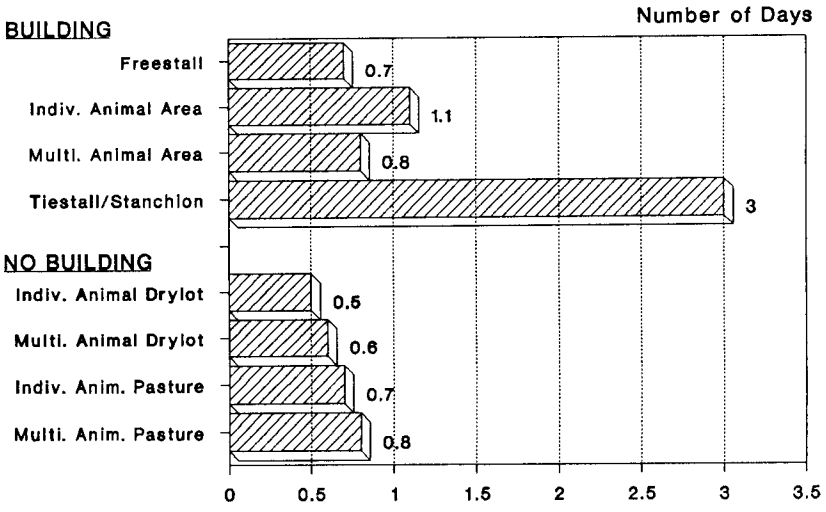
Figure 3 shows the average length of time dams are in the calving area prior to calving. The graph shows only the top four types of maternity areas, excluding pasture. With the exception of the individual animal area, cows on a majority of farms are in the maternity pen for longer than 10 days. This length of time may affect the cleanliness and management of the calving environment.

Figure 3. Length of Time Dairy Cows are in Calving Area Prior to Calving



The length of time the calf remains in the maternity area after birth may affect its health and well-being. Figure 4 shows that in most of the housing areas, calves remain less than a day on average. Notable exceptions are the tiestall/stanchion areas and the individual animal areas.

Figure 4. Average Time in Days Calves Remain in Calving Area



Eighty-nine percent of the producers use some type of bedding in the maternity pens (excluding pasture). Straw or hay and sawdust or shavings are the most common beddings used in each facility type.

Other details of farm management from the standpoint of the newborn calf and maternity hygiene will be part of further analyses of NDHEP data.

NDHEP collaborators included the National Agricultural Statistics Service (USDA:NASS), National Veterinary Services Laboratories (USDA:APHIS:VS), and State and Federal Veterinary Medical Officers. The Cooperative Extension Service provided editorial assistance. For more information on the National Dairy Heifer Evaluation Project and other NAHMS programs, please contact:

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