

Individual Stalls for Dairy Cattle In Loose Housing Systems

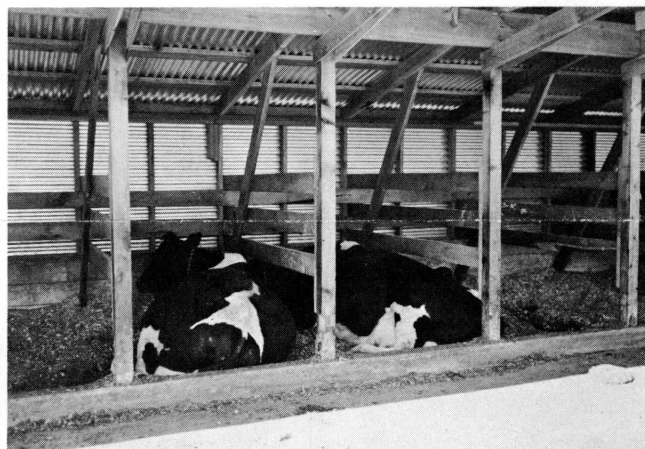
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Loose housing systems for dairy cattle are in common use throughout the Pacific Northwest. This system allows the animals freedom of movement in and out of the covered bedded area. Recent studies show that individual stalls are a valuable addition to the loose housing system.

Individual stalls in a loose housing shed were first built by Adolph Oien of Rt. 1, East Stanwood, Washington, for his 50-cow herd. This was a building 100 feet long and 28 feet wide, with a 12-foot concrete strip down the center, an 8-inch curb, and stalls on each side of the concrete strip. Since that time well over 100 dairymen in western Washington have converted facilities to stall-type housing. During the winter of 1961-62 a number of Oregon dairymen either built new shelters incorporating individual stalls, or converted some of their old facilities to this system. Adoption has been quite rapid, and at this time no one has all the answers relating to the use of this type of stall. However, we do know something about management and construction details.

From a management standpoint, here are some results based on the experience of those who have used this system:

1. About 97% of the cows will gradually use the stalls. Three percent will be forced to use them, and occasionally a cow will never use one. Sometimes a few cows will back into the stalls. It generally takes a few days, or longer, for cows to get used to this system.
2. Cows in heat are no added problem. The same situation exists as in conventional loose housing systems.
3. To date operators have reported no trouble from stepped-on udders, and no trouble has been reported from knocked down hips, although this could be more of a problem in extremely long and narrow clean-out alleys.
4. Cows are generally kept cleaner with less labor.
5. There is generally less labor per day in this system. There is little hard work, since it can be mostly mechanized.



Individual stalls may be built of wood, metal rails, pipe, or other available materials. Several commercially-built stalls are available.



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6. Less bedding is used, with savings up to 75% or more. Shavings, sawdust, chopped straw, long straw (not so desirable), and perhaps sand can be used.

7. Daily scraping of the alleyways and removing any droppings in the rear of the stall is a part of good management. All the daily droppings from the animals are dropped in an area that can be cleaned every day and there is no accumulation of manure pack as in a loose housing shed. Provision must be made to remove this manure from the alleyways behind the stalls, as well as in the exercise yard and feed area. This must be part of over-all plans when converting to this system.

8. Good drainage in alleys is needed. Floors should slope away from curbs.

9. A front curb or brisket board is used in some instances in front of the cow. This is supposed to prevent the cow from moving too far forward when resting.

Following are suggestions on construction details: Width of stalls: large animals, 1,300 to 1,500 pounds, 48 inches minimum; medium animals 44 inches, and small animals, 900 pounds, 40 inches. Length of stall for most animals and for mixed herds of large and small animals: possibly 7 feet 6 inches in side measurements. For smaller breeds, a 7-foot length minimum is probably quite satisfactory. Stall posts or supports at the rear

of the stall may be vertical or slope slightly toward the front of the stall, and they may be placed on the inside or on top of the curb. Stall partitions should be 4 feet high from top of the curb. The curb along the edge of the cleanout alley should be 8 inches high, and it may be either concrete or a 2 x 8. Optimum height of the curb should be 8 inches.

When all partitions are started on the stall side of the curb, a few inches of effective alley width is gained. There is less chance of clean-out equipment making contact with stall partitions.

Construction of partitions: Some have used 1-inch rough sawed fir lumber. This seems to be satisfactory if the ends are nailed with ring shank nails or bolted. A tendency for the nails to pull out has been noted. The lower partition board or plank should be 20 inches above the ground. The ground level in the stall should be on a level with a top of the concrete in the clean-out alley, and can either be filled with sand or packed dirt to this level. The front of the stall may be solid or slatted, and where cows are facing each other there should be good firm construction. Some operators prefer to have this partition solid in front of the cows.

Calf and heifer stalls have been demonstrated to be practical. Stalls 2½ feet wide by 5 feet long have been satisfactory for yearling Guernsey heifers. Rubber reinforced nylon pads are being tried out, and, if the cost and life are compatible, will be marketed and available at a future date.