

Calf Notes.com

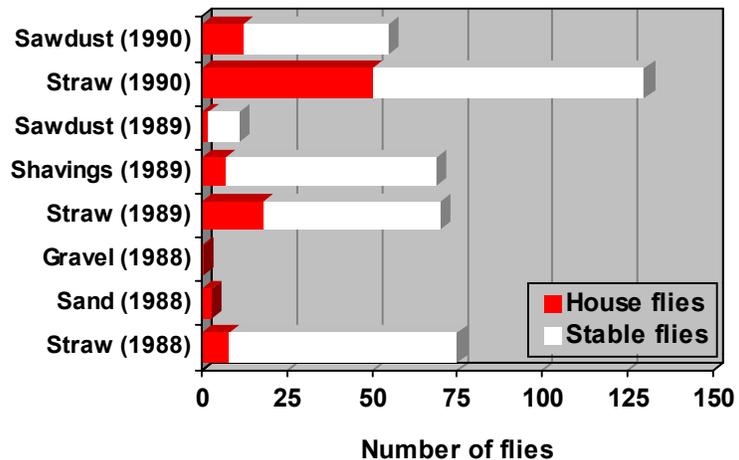
Calf Note #25 – Bedding in Calf Hutches

Introduction. Hutches are widely used for housing the young dairy calf. When used properly, they are efficient, healthy, and provide isolation and good ventilation - two of the major requirements for optimal calf housing. But there are some management strategies that can improve the overall quality of hutch housing. One of these strategies is bedding.

According to an article in the May 25, 1986 issue of [Hoard's Dairyman](#), Dr. E. T. Schmidtman reported that outdoor calf hutches are a major source of adult houseflies and stable flies on many dairy farms. An overall average of 40 to 70 housefly and 12 to 30 stable fly maggots occurred in each quart of bedding from outdoor calf pens. This would translate to 20,000 to 30,000 flies produced per hutch over the summer. Wow!

According to Dr. Schmidtman, there were farms with lower fly populations in the hutches. Some of the factors associated with reduced fly populations were:

- use of wood shavings (1 to 2 inches of bedding)
- producers did not allow formation of a bedded pack
- no straw was used for bedding
- pens were set on a gently sloping well-drained surface with the outside enclosure downslope
- use of feed pails large enough to prevent spilling



Density of immature houseflies and stableflies as materials used as experimental bedding in calf hutches. Adapted from: Schmidtman, J. Dairy Science, 1991, 74:3956.

A prime area for fly/maggot growth is immediately beneath the feed and water buckets. When feed and water spills, it provides an optimal location for maggots to grow. The longer it remains, the more chance flies have to breed in this area. This is why bedding should be cleaned out at two week intervals in the summer to really control fly populations.

Straw promotes more fly growth than other bedding sources. An article in the [Journal of Dairy Science](#) indicated that straw promoted much greater growth of both stable flies and house flies than other bedding sources. Sawdust bedding in calf hutches is only a marginal bedding source for flies, so you could reasonably expect to see reduced populations of house and stable flies if you used

sawdust instead of straw. Researchers suggest that sawdust is less optimal for maggot growth due to the poorer absorption of liquid, reduced availability of organic matter, higher degree of lignification, and other factors. Sand and gravel bedding tend to become compacted and unsanitary after a few weeks of calf occupancy. Thus, it is not often used as a bedding source.

Bedded packs generally tend to contribute to fly populations. The addition of fresh straw over soiled bedding will keep the calf comfortable, but will increase the moisture holding capacity and fermentation potential of the pack. Producers should look carefully at their housing schemes. Note that calf areas - whether they are hutches or barns, tend to be a major contributor of flies on the farm. You can reduce the population by:

- Carefully select bedding. Straw promotes the greatest fly population, sawdust, shavings, sand, and gravel, the least.
- Minimize feed and water spillage. Use buckets that are sufficiently large to minimize feed spillage. Keep water clean and available. Place buckets at the proper height to minimize wastage.
- Improve drainage to reduce the water available for maggot growth.
- Clean hutches or pens frequently (2 wk intervals in the summer).
- Use insecticides as necessary to control flies in the environment.

There is a difference between shavings and sawdust, and the selection can impact animal comfort and productivity. Sawdust is the material derived from the "throat" of the saw during milling operations. It usually has a very small particle size. Shavings, on the other hand, are usually derived from other milling operations (i.e., planing), and shavings will usually have a much larger particle size than sawdust. The species of wood and source of supply can affect the quality of the material, and its suitability for use as bedding. Of course, treated lumber does not make acceptable bedding.

Therefore, it is important to use a reputable supplier as source for your bedding. Other experience with shavings has been quite positive. We notice good calf comfort, reduced fly populations compared to straw, and easier cleanup. Currently, however, shavings are quite expensive compared to other sources of bedding. !

**Written by Dr. Jim Quigley (24 September 1997).
©2001 by Dr. Jim Quigley
Calf Notes.com (<http://www.calfnotes.com>)**