

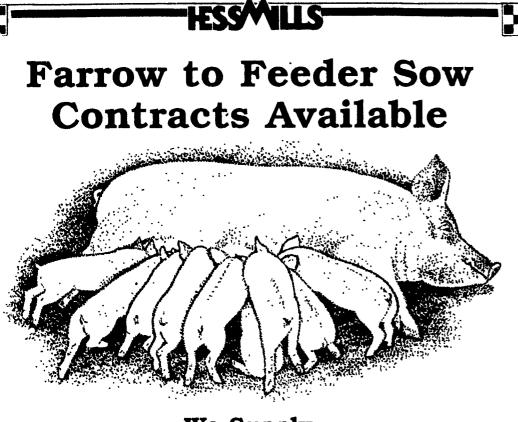
Feet and Legs

Feet and leg problems can cause cows to leave the herd prematurely. Many of the feet and leg problems may also be responsible for cows being culled for low production and poor reproduction. Thus, the records may not truly reflect the real reason why cows had to be culled. If cows' feet are hurting, they won't display strong heats; nor will they be anxious to walk to the manger or pasture for feed. Thus, milk production suffers. If this causes cows to become too thin, heat expression, ovary activity and conception also may be affected.

Dairy Pipeline By **Glenn A. Shirk** Extension Dairy Agent

We see a considerable number of cows with puffy hocks and stiff joints. A lot of times I hear these problems being blamed on rubber mats, stall beds and concrete stress, which is probably true in many cases. But, I also wonder how many of these puffy hocks are related to hoof injuries, where infections enter via the hoof and eventually spread upward to the leg joints. If this is the case, changes we've made in housing and feeding over the past ten years or so could be a major contributing factor, one that perhaps we tend to overlook.

Cows and heifers are more con-



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fined. They spend more time standing on concrete and in slop (manure and urine). Their feet seldom have an opportunity to dry off, and they become predisposed to a variety of injuries and infections.

We're also feeding more grain, more chopped and ensiled feeds, and using more fats and oils or oil seeds in our rations. As we feed more grain and less forage cows' rumens become more acid. The_ problem is compounded when the forages that we do feed are also chopped and ensiled.

Chopping forages finely reduces the effectiveness of the fiber in the ration, and cows spend less time chewing their cuds. Cows' saliva production and rumen buffering activity are reduced, and the rumen becomes more acid. Resultant acidosis problems can cause foot problems such as laminitis or founder. These injuries generally are permanent in nature. Cows can be treated for these injuries to give them some temporary relief, but they seldom ever recover completely.

Fats and oils that are added to the ration coat the surface area of forage particles, making them more difficult for rumen microbes to digest. If too much fat and oil is fed, or if additional forages of suf-

ficient particle length and digestibility are not fed, the acidosisrelated problems discussed earlier can occur.

As we try to get dry cows and heifers onto full feed after calving we may be making ration changes too suddenly, faster than what the rumen bacteria and the gut lining can adjust. This also can cause foot problems such as founder or laminitis. Many times, when a heifer gets these problems, she won't eat well because her feet hurt. She loses flesh, she won't milk well, and within six months of calving, she is out of the herd.

Cows can vary considerably in size and in forage consumption. Yet, when we balance rations and develop feeding programs for the herd, we frequently assume that all cows consume equal amounts of forage and then feed grain on the basis of that erroneous assumption. This could be a problem, especially if we are feeding minimal amounts of forage to begin with, and then chopping and ensiling the forage, adding fats and oils to the ration, not acclimating close-up cattle to grain feeding prior to calving, feeding a lot of grain, and introducing large slugs of grain to an improperly buffered rumen.

Chances are, a small 1100 lb. heifer will not eat as much forage as the average daily intake figure you used for balancing the ration. If the heifer's appetite is sluggish, and you feed her a little extra grain to encourage more milk production and boost weight gains, you could be aggravating the problem and setting her up to develop some foot problems.

Thus, it is important to estimate cows actual forage intakes as accurately as reasonably possible, and to regulate what a cow or heifer eats in the weeks prior to and after calving. Make ration changes slowly over a period of about 3 to 4 weeks. Be sure they get an abundant amount of good quality forage before and after calving. Be sure cows are eating adequate amounts of good quality forage before worrying about getting more grain into them.

For many years, we have been taught to feed cows according to production, and we learned our lesson well. However, with today's high producing herds, that could be a mistake, especially in early lactation. We need to maximize intake of dry matter and nutrients, without causing appetite problems and digestive upsets, and we need to feed according to flesh conditions. Once the cow is in proper flesh, we can then feed according to production and growth.

Keep the maternity area clean and dry. Give dry cows some relief from concrete stress; let them have access to a dirt lot or a well sodded area -- not a sloppy lot. Try to house cattle in such a way that their feet have an opportunity to dry off from time to time. Trim cows' feet when necessary,

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