

## GLOBAL WARMING AND MASTITIS

Peter Edmondson  
Shepton Vet Group  
Allyn Saxon Drive  
Shepton Mallet  
Somerset, UK.

Global warming has really been changing our climate here in the United Kingdom. Years ago we had cold harsh winters with lots of frosts and occasionally some snow. We haven't had real snow for about 20 years and last winter frosts were few and far between. Rain has increased and some of our herds have had to house their cows early when it was still warm outside. The hot and humid conditions are ideal for mastitis and pneumonia.

Gerald and Tim milk 150 Friesians which calve all year round. They are good farmers and like to minimise any problems. At my last fertility visit they were complaining that they had five cases of mastitis in the past week, that's more than the total they should have had for any month.

While carrying out the preg checks we went through the milking routine and other aspects relating to teat preparation and these were all fine. They have been predipping for more than a year now and see the benefits. Housing was one of the areas which we needed to check in more detail.

Cows were housed about a month earlier than normal and they winter in freestalls. There are 10% more freestalls than cows which allows choice of where to lie down. On walking into the barn the first thing that struck me was how muggy it was inside. It was dark and felt damp. Obviously ventilation was not too good. Tim thought that the ventilation should be OK as there was a six inch space above the lower walls to allow air into the shed, and an open ridge at the apex of the roof, but metal sheets had been put underneath the ridge to stop water getting in.

One of the ways that I check ventilation is to set fire to a bucket of dry straw and watch what happens the smoke. We lit a bucket and watched the smoke rise, circle and then remain in place for quite some time, and this was on a day with good air flow.

We decided to open up the sides of the shed so that there was a two foot space at the top of each wall, and to take off the sheets below the ridge on the apex. This work was carried out two days after my visit.

I also noticed that the beds were mucky and damp. They used a combination of straw and sawdust. The sawdust was a new idea as the local timber mill was prepared to deliver fresh sawdust free of charge once a week. Fresh sawdust contains about 40% moisture. It was stored in a large clamp and the volume of sawdust was increasing week on week. Pete, one of the farm hands, said it felt quite warm when they put it on the beds. On examination, there was secondary fermentation of the sawdust and this will really increase levels of Klebsiella which can cause a horrible environmental mastitis.

We decided to only use the sawdust for bedding the youngstock, and to clear off all the backs of the freestall beds to remove all sawdust and replace with lime and dry straw.

Cows were lying too far forwards in the freestalls and this meant that they were dunging at the rear of the bed, right where the udder lies. There was no brisket board present and so cows could lie as far forwards as they wanted. I recommended a wooden brisket board 5' 8" from the rear lip of the freestall. We have found this an excellent way of keeping cows lying in the freestall so they have enough lunging space to get up and also to ensure that when they muck, the dung goes into the passageways and not on the beds.

The final problem with the housing was scraping out. They used a tractor to scrape out all the passageways twice daily, but they only manually scraped the cross passages (the areas between rows of freestalls and round the water troughs where the tractor can't scrape) daily. The condition of some of these, especially round the water troughs, was very dirty.

The boys were keen to show me what they had done in the barn and the first thing you noticed was how bright and airy it was. It no longer smelt damp. You could feel the air moving and again I lit a bucket of straw and the effect was amazing, the smoke drifted away very quickly. Gerald was concerned that the cows might get cold, but unless temperatures fall to below minus 10°C this is no consequence. The important thing is to try and avoid draughts which may chill.

The freestalls and cows were spotless and they found that some of the heifers, which were not too keen to use the freestalls in the past were lying much more. I think this is a combination of more comfortable beds and also the brisket board which stops them going too far forwards in the freestall and getting stuck when rising.

Clean, dry and comfortable beds in a well ventilated shed minimise mastitis. Clean passageways avoid splashing of muck on the udder and teats. Gerald and Tim notice that their cows have never been so clean coming in to be milked.

So, what difference did all of this make? Three weeks later I was on the farm again and over the previous three weeks following all the changes being made they have had one clinical case. All in all, the changes that we made were a real success.