



Cleaning the udders with wood wool stimulates them more effectively and results in shorter milking time.

Pleasantly surprised by wood wool

A Swiss study shows that preparation for milking with agroclean Wood Wool stimulates the udders more effectively and results in reduced milking time. On Daniel Frei's project operation in Adlikon the udders of a proportion of the herd will continue to be cleaned with wood wool in the future.

"We used to clean the udders with wet wipes alone" relates Daniel Frei, the farm manager at the Mattenhof in Adlikon ZH.

Since wet wipes and wood wool have been compared on his herd of dairy cattle, his herd manager, Bruno Schäl uses wet wipes for only half the cows. For the other half he uses wood wool. "Udder health and the milk quality have not deteriorated since we started using wood wool. Besides, the wood wool is slightly better in price." explains Frei.

The herd of some hundred cows is milked in a 16-cow capacity milking carousel. The yield level of the herd changes at 9500 kg of milk. "The cell counts, together with the milk yield, are an important breeding aim and

criterion in our business," explains Daniel Frei. "Cows with high cell counts are strictly weeded out."

All wood wool is not alike

Daniel Frei made his herd of dairy cattle available for a study, which arose from an initial cooperation with Zurich Veterinary Hospital and the Strickhof Lindau. "We have been pleasantly surprised by wood wool in this study," he says. "So much so, that we shall continue using the wood wool alongside the tried and tested wet wipes." The wood wool referred to is not just any old wood wool, but is agroclean Udder Wool, a quality product from Switzerland. In contrast to the cheap products from abroad, which are also available on the market, agroclean

Wood Wool is free from dust and splinters, is dry and therefore perfect in terms of micro-biology. It is produced from certified, untreated Swiss wood, which has been stored for several years.

Efficient cleaning, reduced milking time

"The results show that a good cleaning effect is produced with agroclean Wood Wool," says the student of veterinary medicine, Roman Ruf, who has written the study. "In addition, stimulating the udders during udder cleaning results in shorter milk duration." These results from the Swiss study confirm the findings of a French research project in 2009. In that study it became evident that the use of wood wool

reduced milk duration, the milk yield became higher after two minutes and the number of butyric acid spores in the milk was reduced. In these results the milk yield after two minutes represents an indicator for the quality of the stimulation, the number of butyric acid spores represents and indicator for the quality of cleaning.

The Swiss results, however, do not turn out quite as clear-cut as those in France. On Frei's farm a reduction of about six seconds in total milking time (stimulation plus milking) was recorded with the use of wood wool. At first sight this does not seem a great deal.

Extrapolated over a herd of one hundred cows, however, this amounts to a saving in work time of ten minutes per milking. In addition, according to Roman Ruf, the breed must be taken into



On Daniel Frei's (right) high-performance business with its 16-cow capacity milking carousel Roman Ruf (centre) compares wood wool with wet wipes, with the assistance of herd manager, Bruno Schär (left).



On the farm today both cleaning materials are used.

account: A six second reduction in total milking with Holsteins, which already possess very good milking characteristics, is good.

No differences with respect to udder health

With respect to udder health the two types of cleaning material do not significantly differ from each other. Admittedly, when wood wool was used, fewer gram-positive cocci and rod cells were detected in the milk samples. Roman Ruf traces this finding to the tannins which occur naturally in the wood and which have a germ-killing effect on pathogenic organisms.

Wood wool is also a cost-effective udder cleaning product. The costs per cow and use are around 1.85 centimes. The most cost-effective wet wipes, including disinfectant, vary between just over 2 centimes per cow and use to the most expensive at 4 centimes. On Frei's farm wood wool is more cost-effective per cow and use than wet wipes. "Extrapolating across one year for our herd, half of which is prepared with wood wool, this amounts at

least to a difference of some 300 Swiss francs," calculates Daniel Frei.

Udder cleaning materials are disposable materials.

"Wood wool is used differently today from the way it used to be used, when one single wad of wood wool was used for all the cows," says Daniel Frei. "Nowadays, wood wool is, like all the other udder cleaning products, a disposable product. This is a fresh starting point." Herd manager, Bruno Schär adds, "Per cow and use I needed a handful of wood wool, that is about six grams. After the udder had been cleaned the wad was thrown into the rubbish bin." According to the producer of Agroclean Wood Wool, it can be used a second time, for instance as fuel or as mulch.

"Based on this study, we would be happy to clean the udders of all the cows with wood wool," says Daniel Frei. Admittedly, the use of wood wool led to a problem, which he had not anticipated. Since the milking area is located at a lower level than the slurry pit, the waste water has to be pumped out of the milking pit. The wood wool fibres which fall on the floor

eventually wind themselves into cords and in this way block the waste water pump.

For this reason preparation for milking will continue for half of the herd using wet wipes. The herd manager, Bruno Schär explains, "With cows with clean udders and teats I use the wet wipes. With cows with dirty udders and teats I use wood wool, because dried-on dirt is much easier to remove with wood wool. For dirty udders I used to use two or three wet wipes to get the udder clean; by using wood wool I can save on these additional wet wipes. This procedure, however, does not accord with the recommendation of the Milking Consultancy. This body recommends that wood wool should be used only for clean udders and wet wipes should be used for dirty udders. For problem processes it is recommended that preliminary cleaning should be carried out with wood wool and the tips of the teats should be cleaned with wet wipes.

Before cleaning the udders Bruno Schär slightly moistens the wood wool with water. "It is easier to remove the dirt in this way

than when the wood wool is dry" he explains. "The water makes it more non-slip." The resin in the wool also helps to bind it better. Wood wool also contains antiseptic substances, which have a disinfectant effect both on the skin of the teat and on the hands of the milker.

With udder cleaning alone this is not so.

"Udder cleaning materials are, as the name suggests, a means of cleaning udders and teats, to reduce the cell counts or to resolve health problems of the udder," is Daniel Frei's firm opinion. Udder health depends more on other factors, such as cubicle and stall hygiene, milking intervals, the set-up of the milking plant or the yield level of the herd. Not least the whole milking process is crucial. It is believed that the choice of an udder cleaning material depends more on farmers' preferences.

Aline Künzi

Further information
on Agroclean Wood Wool on
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