AGRICULTURE CENTER HAUS RISWICK IN GERMANY

Improvement of room hygiene by using probiotic cleaning products
(Hendrik van de Sand, LWZ Haus Riswick, Nordrhein-Westfalen)

In the context of a special training course for milk producers in January 2008 at the agriculture center Haus Riswick, the Chrisal company presented a concept for the improvement of room hygiene by means of the PIP products (Probiotics in Progress).

The following working mechanism is behind this concept: after cleaning and stabilizing the surfaces by means of PIP products, PIP bacteria are covering these surfaces. The probiotics consume all microscopic dirt and biofilm trapped in the surface materials, thereby removing shelter and food for unwanted organisms. In this way a stable, healthy environment is established.

In the milking parlor of the Agriculture Center Haus Riswick the presented product has been applied for half a year now. Once a week the milking parlor is foamed with the Chrisal PIP cleaning product and a bit later the milking parlor is rinsed by means of a high pressure cleaner. To stabilize the environment after each milking session the PIP probiotics are misted into the milking parlor using a backpacksprayer. Also, the teat cups are dipped into a PIP cleaning solution.

Just before starting the PIP cleaning and two months later, plate count samples were taken at different locations in the milking parlor, in order to examine the risk of microbial contamination. In the following schedule the risk at *Enterobacteriaceae* (e.g. Salmonella, Klebsiella and Escherichia coli) and the risk at *Staphylococcus aureus* is represented before and after PIP application.

Table: Microbial contamination risk in different spots of the milking area

	Enterobacteriaceae		**Staphylococcus aureus**	
Location	**Before PIP**	**After PIP**	**Before PIP**	**After PIP**
Teat cups	> 200	1	> 100	25
Cows' standing area	> 200	4	> 200	1
Milking terminal	51	0	46	3

An improvement of hygiene in the overall milking parlor by using the PIP cleaning products has clearly been demonstrated.
To what additional extent this improvement of milking parlor hygiene also influences cow udder conditions positively will be determined after prolonged PIP application.

HAUS RISWICK:

Milking Parlour in Germany

Melkstal in Duitsland

Colony count per 20 cm²

Aantal kolonies (op 20cm²)

TNTC = too numerous to count

Place	Total 1/2008	Total 3/2008	Entero 1/2008	Entero 2/2008	Staphylo 1/2008	Staphylo 2/2008
1 Teat cup	>300	>300	>200	1	>100	45
2 Teat cup	>200	TNTC	>200	0	>60	4
3 Teat wash	?	TNTC	>200	3	6	15
4 Teat wash center	?	TNTC	>300	7	0	?
5 Board floor	?	TNTC	>200	4	>200	1
6 Ground	>300	TNTC	>200	0	0	5
7 Ground	>200	TNTC	>300	0	>100	3
8 Tube	72? / 48?	>300	>200	0	16	15
9 Collector water	?	TNTC	?	1	?	86
10 Operation	>200	>300	18	0	28	3
11 opperartion back	>200	>300	84	0	64	6
12 Milk tank	128?	>300	>200	12	16	9
13 Hard ware	>200	>300	>200	0	12	2
14 Hard wareΔ	>200?	TNTC	?	14	?	20
15 Pipeline	?	>300	?	0	12 ?	2

Remarks:

01/08 Despite the exceptionel cleaning efforts, despite the very good visual impression, the hygienogram is bad.

02/08 The total count proves PIP has been applied. Good improvement of the microbiota. The result of the enterocount is ver
the staphylocount shows there is a good improvement already, but some places have to be payed more attention to, e.
some teat cups and teat washes, the water collector and also the flat triangle hard ware has to be rinsed properly.
The supports between the teat cups have to be cleaned better.