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STUD BOOK

Logix *Melk/Milk*

Kudde Gesondheids Verslag / Herd Health Report

UNIVERSITEIT VAN PRETORIA

MILK UNIT

UP EXPERIMENTAL FARM

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Test-day: 2025-01-27

Holstein Cows

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February 8, 2025

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HERD HEALTH SUMMARY REPORT

UNIVERSITEIT VAN PRETORIA - Holstein Cows

Table 1: Summary for Test-day 2025-01-27 (Number of Samples Tested: 49)

Analysis	Results	Norms*	% Cows outside norms*
Milk Production (kg)	Avg.: 25.6 Median: 25.6		
Butterfat (%)	Avg.: 4.92 Median: 4.97	3.5 % - 6.0 %	Too Low: 0 % Too High: 8 %
Protein (%)	Avg.: 3.43 Median: 3.52	3.0 % - 4.5 %	Too Low: 12 % Too High: 0 %
Lactose (%)	Avg.: 4.75 Median: 4.82	> 4.7 %	Too Low: 31 %
MUN (mg/dl)	Avg.: 17.73 Median: 18.80	8 - 16 mg/dl	Too Low: 2 % Too High: 69 %
SCC (x1000/ml)	Avg.: 500 Median: 161 % < 100 : 44.9 % % < 200 : 65.3 % % < 500 : 81.6 % % > 750 : 10.2 % % > 1 000 : 10.2 % % > 1 500 : 6.1 %	< 200 > 64 % > 75 % > 92 % < 4.8 % < 1 % NONE	Too High: 19.1 % Too High: 9.7 % Too High: 10.4 % Too High: 5.4 % Too High: 9.2 % Too High: 6.1 %
Butterfat Protein ratio	Average: 1.4	> 1.0	Too High: 0.0 %

Table 2: Quantification of Specific Cases (% of herd) and Loss in Production on 2025-01-27

Loss in Production due to:		Avg/Median SCC (Number (n)):	
SSC (kg per day):	100.4 (8.0 %)	1st Lact Cows:	162/119 (24)
DIM (kg per day):	309.4 (24.7 %)	2nd Lact Cows:	331/201 (11)
No. of Cows Under Pressure:	1 (2.0 %)	3rd Lact Cows:	548/278 (10)
No. Cows with SCC > 200k:	16 (32.7 %)	4th Lact Cows:	3660/655 (3)
No. Cows with SCC > 750k:	5 (10.2 %)	5th Lact Cows:	0/ (0)
No. New Infections:	10 (20.4 %)	6+ Lact Cows:	0/ (0)
No. Recurring Infections:	3 (6.1 %)	Avg. SCC for SCC > 750k (n):	3476 (5)
Cure Rate for SCC > 200k:	29.4 % (5)	Avg. Days In Milk (DIM) for Herd:	242
Cure Rate for SCC > 750k:	40.0 % (4)	Median of DIM for Herd:	237
No. Chronic Infections (SCC > 200k):	3 (6.1 %)	Avg. DIM for SCC < 200k (n):	228 (32)
No. Chronic Infections (SCC > 750k):	0 (0.0 %)	Avg. DIM for SCC > 200k and < 750k (n):	277 (11)
No. of Possible Ketosis Cases:	3	Avg. DIM for SCC > 750k (n):	188 (5)
No. of Possible Acidosis Cases:	0	Avg. Parity for Herd:	2
Avg. Age at First Calf (Months):	26	Avg. Parity for SCC < 200k:	1
Avg. Inter-Calf Period (Days):	424	Avg. Parity for SCC > 200k and < 750k:	3
No. Flushings:	NA	Avg. Parity for SCC > 750k:	3
No. Embrios:	NA		

Table 3: Benchmark: Herd with the Top 25%, Average and Bottom 25% for different traits tested the last month of for Holstein Cows

	Milk Production (kg)	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)
Herd	25.6	4.92	3.43	4.75	500	17.73
Top 25%	34.1	4.76	3.64	4.90	34	15.20
Breed Avg	28.1	4.31	3.42	4.75	272	11.82
Bottom 25%	22.2	3.82	3.18	4.64	187	8.60

*** PLEASE CONSULT YOUR VETERINARIAN, PROFESSIONAL ANIMAL SCIENTIST or LogixMilk TECHNICAL ADVISOR for the interpretation of these results and professional advisory services.**

Table 4: Summary of Somatic Cell Counts per Lactation Group in the herd for 49 Holstein Cows

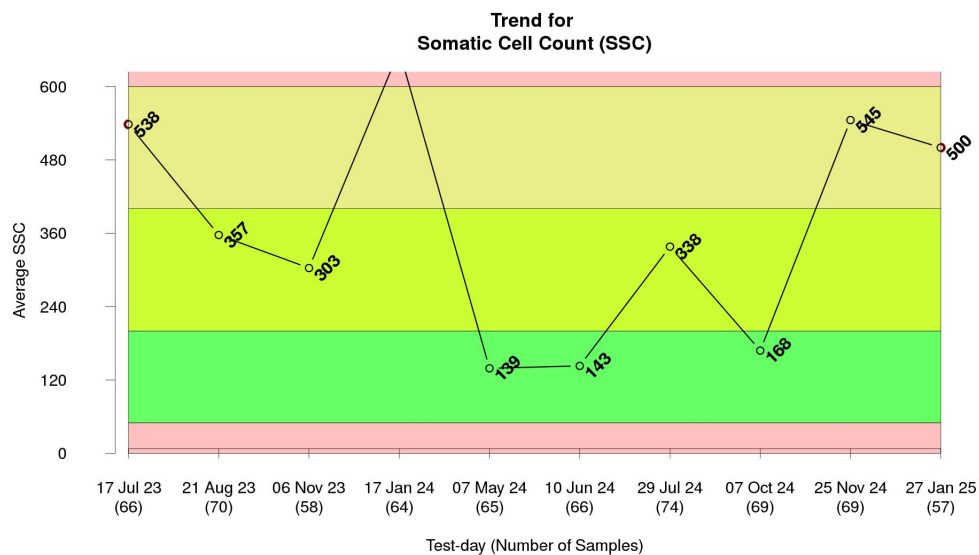
Lactation Group	% of Herd	Early Lactation	Mid Lactation	Late Lactation	% SCC > 200k	% SCC > 750k
1	49.0% (24)	6.1% (3)	10.2% (5)	32.7% (16)	6.1% (3)	2.0% (1)
2	22.4% (11)	2.0% (1)	8.2% (4)	12.2% (6)	8.2% (4)	2.0% (1)
3	20.4% (10)	2.0% (1)	6.1% (3)	12.2% (6)	12.2% (6)	4.1% (2)
4	6.1% (3)	2.0% (1)	4.1% (2)	0.0% (0)	6.1% (3)	2.0% (1)
5	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
6+	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
Herd	97.9% (48)	12.1% (6)	28.6% (14)	57.1% (28)	32.6% (16)	10.1% (5)

Table 5: Somatic Cell Count (SCC) Analysis: Percentage (Number) of Cows within Stage of Lactation and Lactation Group for SCC > 200k and SCC > 750k for 49 Holstein Cows

Lactation Group	Early Lactation		Mid Lactation		Late Lactation	
	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k
1	0.0% (0)	0.0% (0)	20.0% (1)	20.0% (1)	12.5% (2)	0.0% (0)
2	0.0% (0)	0.0% (0)	25.0% (1)	25.0% (1)	50.0% (3)	0.0% (0)
3	0.0% (0)	0.0% (0)	33.3% (1)	33.3% (1)	83.3% (5)	16.7% (1)
4	100.0% (1)	0.0% (0)	100.0% (2)	50.0% (1)	0% (0)	0% (0)
5	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
6+	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)

Table 6: Bulk Tank Results for 2025-01-27 (Number of Samples Tested: 1)

Tank No	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)	pH
Calculated Tank 67 Tank	4.90	3.39	4.77	417	18	

**Figure 1:** Somatic Cell Count (SCC) Trend

The average Somatic Cell Count (SCC) and the trend over time is shown in the graph. The ideal is a herd with an average count of less than 200 000. A higher SCC results in lower milk production and possible udder infection. If animals with high SCC can be identified early, they can be treated in time, thereby preventing production loss and permanent udder damage resulting in lower herd life.

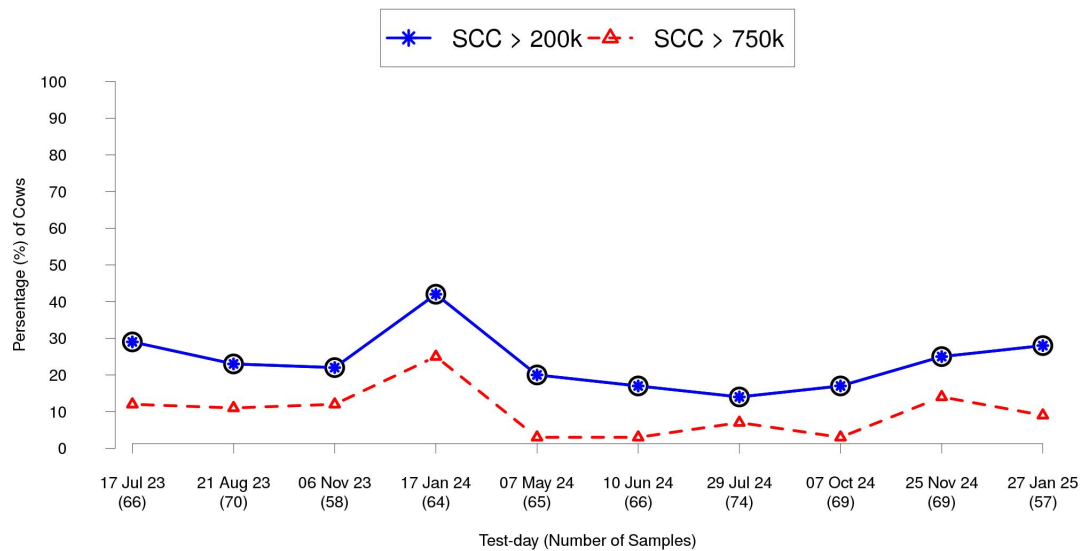


Figure 2: Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day

The graph presents the trend of the % of cows with Somatic Cell Counts (SCC) more then 200k and 500k, respectively. The ideal is to have as few cows as possible with a SCC of more than 200K and none with a SCC of more than 750k.

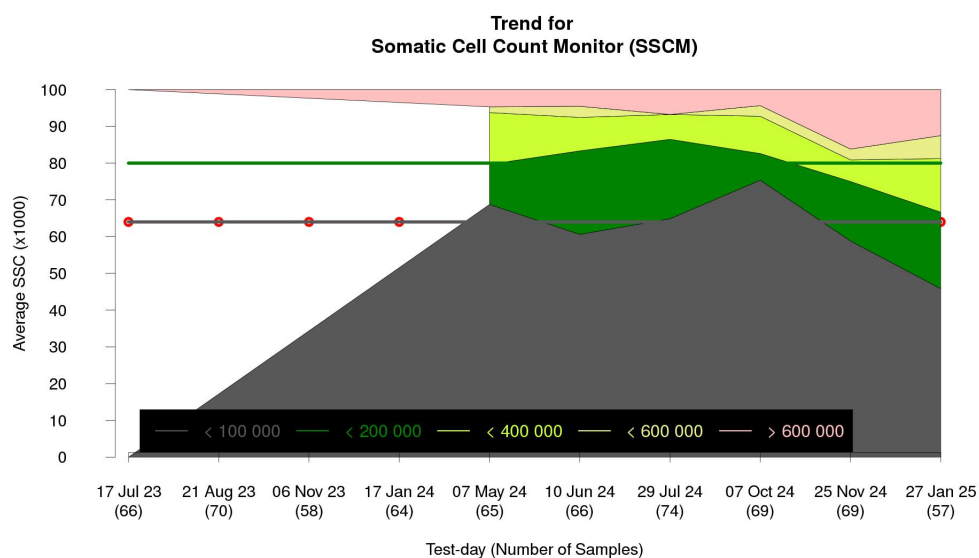


Figure 3: Somatic Cell Count (SCC) Monitor Trend

The graph shows the percentage of cows within certain Somatic Cell Count (SCC) levels. Ideally, at least 64% of the cows of a herd should have a SCC of less than 100 000 and 80% a SCC of less than 250 000. The danger zone is indicated in red, where ideally no cows should be indicated.

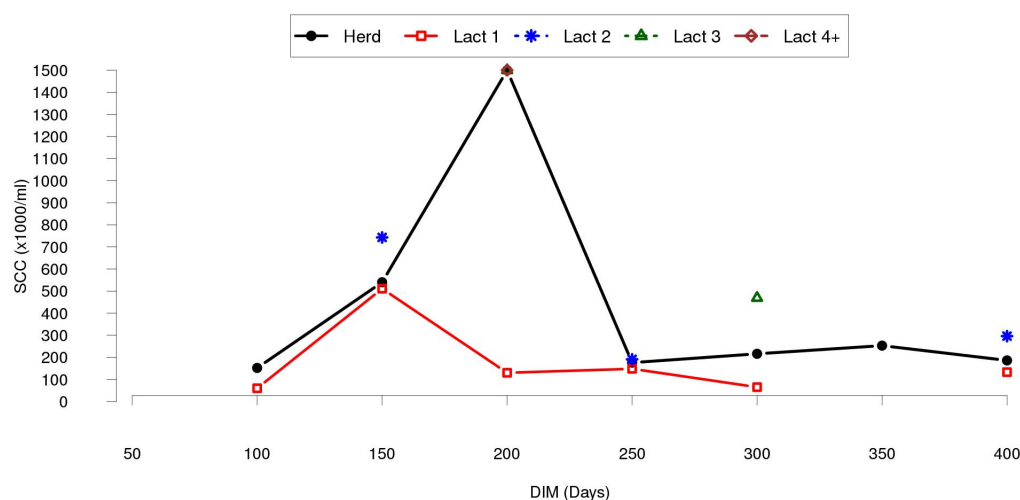


Figure 4: Average Somatic Cell Counts (SCC, x1000/ml) per Day In Milk (DIM)

This graph indicates the average Somatic Cell Counts (SCC, x1000/ml) per day in milk (DIM) for the complete herd, as well as for Lactation 1, 2, 3 and 4+ cows, separately.

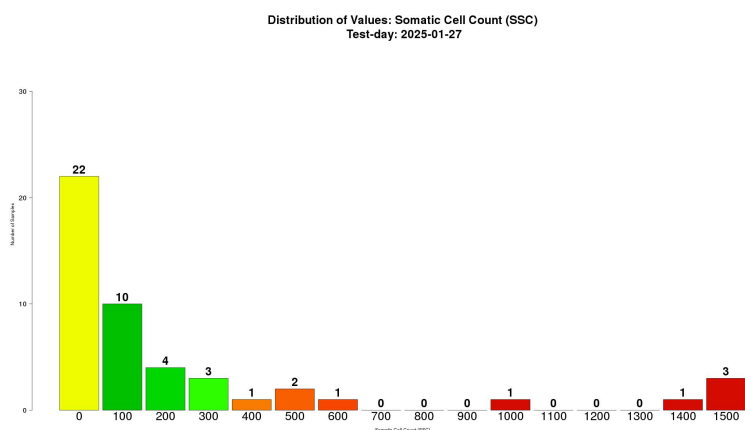


Figure 5: Somatic Cell Count (SCC) Distribution for Test-day (2025-01-27)

The graph depicts the number of animals within certain levels of Somatic Cell Counts (SCC). If the cows with SCCs higher than 600 000 can be identified early, they can be treated or even culled from the herd, preventing economic losses due to penalties paid for high SCCs in the milk.

Table 7: Somatic Cell Count (SSC) distribution and Milk Loss Monitor 2025-01-27

SSC Levels	< 100k	100k - 200k	200k - 500k	500k - 800k	800k - 1 500k	> 1 500k
Number Cows	22	10	8	3	2	3
% Cows	45.8 %	20.8 %	16.7 %	6.2 %	4.2 %	6.2 %
Milk Quality	Excellent	Very Good	Needs Improvement	Poor	Serious	BAD
% Milk Loss	< 2 %	2 - 4 %	4 - 8 %	8 - 10 %	10 - 35 %	> 35 %
% Quarters Infected	< 1 %	1 - 6 %	6 - 16 %	16 - 26 %	26 - 48 %	> 48 %

The average Somatic Cell Count (SCC) on 2025-01-27 for the herd, was 500 000. This figure places the herd in the "Orange" SCC Zone and the milk quality is Poor. Milk loss due to SCC is between 8 and 10 %.

Udder Health: Mastitis infections are evident and needs slight improvement. Your mastitis control program needs improvement. Consult your veterinarian and/or registered animal scientist for assistance. Due to high somatic cell counts, your ability to supply milk is at risk.

Table 8: Cows Under Pressure (SCC > 500k and Lactose % < 4.6)

Cow ID	Name	SCC	Lactose %	DIM	Parity	Production
1908	1908 INTACT	9803	3.87	183	4	14.2

Table 9: Cows with Somatic Cell Counts > 200k (Status: N=New -, C=Chronic -, R=Recurring - and CR=Chronic and Recurring Infections)

Cow ID	Name	SCC 2025-01-27	SCC 2024-11-25	SCC 2024-10-07	Production	DIM	Parity	Status
1908	1908 INTACT	9803	46	18	14.2	183	4	N
1947	1947 DUNHILL	3046	22	13	26	197	3	N
21007	21007 INTACT	2057	279	24	24.2	145	2	N
22024	22024LUNAR	1449	905	446	30.3	129	1	C
1941	1941	1027	16	63	10.1	284	3	N
1828	1828	655	42	-	34.3	93	4	N
20024	20024	543	-	62	37.6	406	2	N
1905	1905 IKEA	522	12	19	34.7	189	4	N
21020	21020MOVER	405	9999	14	25.8	214	2	N
1940	1940 DUNHILL	377	55	46	22.7	329	3	R
1936	1936 MEGAMAN	337	713	382	22.7	275	3	C
21027	21027	317	-	87	22.8	414	1	R
20002	20002	278	9999	327	25.4	220	3	C
22017	22017 BRANTLEY	250	172	291	15.3	213	1	R
1938	1938 DUNHILL	233	-	41	28.9	355	3	N
20031	20031	201	61	58	24	341	2	N

Table 10: Possible Ketosis Cases; Cows under 100 days in milk (Prot. Fat Ratio < 0.68 for Jerseys and < 0.74 for other Breeds)

Cow ID	Name	Production	DIM	Parity	Prot % to Fat %	Breed
20032	32MOVER	31.6	76	3	0.47	HST
22029	22029 LUNAR	20.9	99	1	0.54	HST
1828	1828	34.3	93	4	0.69	HST

Table 11: Possible Acidosis Cases (Protein % > Butterfat %)

Cow ID	Name	Production	DIM	Parity	Prot % to Fat %
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Table 12: Dry Cows with a Dry Period more than 55 Days

Cow ID	Name	Breed	Last ICP	Avg. ICP	No. ICPs	Days Since Last Calf	Days Open
1745	1745	HST	-	-	-	1875	1582
ZNDP210006	21006	HST	-	-	-	718	416
ZNDP200029	20029	HST	-	-	-	800	316
1915	1915 MEGAMAN	HST	386	429	2	410	119

Table 13: Cows with an active Inter-Calving Period (ICP) > 400 days

Cow ID	Name	Breed	Last ICP	Avg. ICP	No. ICPs	Days Since Last Calf	Production
1745	1745	HST	-	-	-	1875	-
ZNDP150019	1519	HST	500	401	5	847	-
ZNDP200029	20029	HST	-	-	-	800	-
ZNDP210006	21006	HST	-	-	-	718	-
-	21023	HST	-	-	-	577	35.9
1932	1932 DUNHILL	HST	350	350	1	539	-
1929	1929 DUNHILL	HST	440	392	2	469	-
-	21031 MOVER	HST	-	-	-	458	-
-	20023	HST	367	367	1	450	-
-	21028 FOXCATCHER	HST	-	-	-	438	32.8
-	21037 MOVER	HST	-	-	-	438	26.6
20016	20016	HST	520	520	1	426	38.8
-	21039 MOVER	HST	-	-	-	420	-
21027	21027	HST	-	-	-	420	22.8
20026	20026	HST	350	350	1	413	-
20024	20024	HST	389	389	1	412	37.6
1915	1915 MEGAMAN	HST	386	429	2	410	-