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SA STAMBOEK
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: 2025-03-19

Holstein Cows

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List of Tables

1	Summary for Test-day 2025-03-19 (Number of Samples Tested: 61)	2
2	Quantification of Specific Cases (% of herd) and Loss in Production on 2025-03-19	2
3	Benchmark: Herd with the Top 25%, Average and Bottom 25% for different traits tested the last month of for Holstein Cows	2
4	Summary of Somatic Cell Counts per Lactation Group in the herd for 61 Holstein Cows	3
5	Somatic Cell Count (SCC) Analysis: Percentage (Number) of Cows within Stage of Lactation and Lactation Group for SCC > 200k and SCC > 750k for 61 Holstein Cows	3
6	Bulk Tank Results for 2025-03-19 (Number of Samples Tested: 1)	3
7	Somatic Cell Count (SSC) distribution and Milk Loss Monitor 2025-03-19	5
8	Cows Under Pressure (SCC > 500k and Lactose % < 4.6)	6
9	Cows with Somatic Cell Counts > 200k (Status: N=New -, C=Chronic -, R=Recurring - and CR=Chronic and Recurring Infections)	7
10	Possible Ketosis Cases; Cows under 100 days in milk (Prot. Fat Ratio < 0.68 for Jerseys and < 0.74 for other Breeds)	8
11	Possible Acidosis Cases (Protein % > Butterfat %)	9
12	Dry Cows with a Dry Period more than 55 Days	10
13	Cows with an active Inter-Calving Period (ICP) > 400 days	11

List of Figures

1	Somatic Cell Count (SCC) Trend	3
2	Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day	4
3	Somatic Cell Count (SCC) Monitor Trend	4
4	Average Somatic Cell Counts (SCC, x1000/ml) per Day In Milk (DIM)	5
5	Somatic Cell Count (SCC) Distribution for Test-day (2025-03-19)	5

HERD HEALTH SUMMARY REPORT

UNIVERSITEIT VAN PRETORIA - Holstein Cows

Table 1: Summary for Test-day 2025-03-19 (Number of Samples Tested: 61)

Analysis	Results	Norms*	% Cows outside norms*
Milk Production (kg)	Avg.: 26.2 Median: 25.8		
Butterfat (%)	Avg.: 4.77 Median: 4.53	3.5 % - 6.0 %	Too Low: 2 % Too High: 11 %
Protein (%)	Avg.: 3.49 Median: 3.37	3.0 % - 4.5 %	Too Low: 13 % Too High: 3 %
Lactose (%)	Avg.: 4.59 Median: 4.65	> 4.7 %	Too Low: 52 %
MUN (mg/dl)	Avg.: 9.18 Median: 9.10	8 - 16 mg/dl	Too Low: 31 % Too High: 2 %
SCC (x1000/ml)	Avg.: 811 Median: 103 % < 100 : 47.5 % % < 200 : 67.2 % % < 500 : 78.7 % % > 750 : 14.8 % % > 1 000 : 14.8 % % > 1 500 : 13.1 %	< 200 > 64 % > 75 % > 92 % < 4.8 % < 1 % NONE	Too High: 16.5 % Too High: 7.8 % Too High: 13.3 % Too High: 10.0 % Too High: 13.8 % Too High: 13.1 %
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 2025-03-19

Loss in Production due to:		Avg/Median SCC (Number (n)):	
SSC (kg per day):	216.9 (13.6 %)	1st Lact Cows:	472/69 (33)
DIM (kg per day):	447.5 (28.0 %)	2nd Lact Cows:	843/178 (13)
		3rd Lact Cows:	307/158 (7)
No. of Cows Under Pressure:	8 (13.1 %)	4th Lact Cows:	2378/265 (5)
No. Cows with SCC > 200k:	18 (29.5 %)	5th Lact Cows:	0/ (0)
No. Cows with SCC > 750k:	9 (14.8 %)	6+ Lact Cows:	7278/7278 (1)
No. New Infections:	12 (19.7 %)		
No. Recurring Infections:	3 (4.9 %)	Avg. SCC for SCC > 750k (n):	4613 (9)
Cure Rate for SCC > 200k:	25.0 % (4)		
Cure Rate for SCC > 750k:	40.0 % (2)	Avg. Days In Milk (DIM) for Herd:	252
No. Chronic Infections (SCC > 200k):	3 (4.9 %)	Median of DIM for Herd:	254
No. Chronic Infections (SCC > 750k):	1 (1.6 %)		
		Avg. DIM for SCC < 200k (n):	242 (41)
No. of Possible Ketosis Cases:	5	Avg. DIM for SCC > 200k and < 750k (n):	248 (9)
No. of Possible Acidosis Cases:	0	Avg. DIM for SCC > 750k (n):	284 (9)
Avg. Age at First Calf (Months):	26	Avg. Parity for Herd:	2
Avg. Inter-Calf Period (Days):	428	Avg. Parity for SCC < 200k:	2
No. Flushings:	NA	Avg. Parity for SCC > 200k and < 750k:	2
No. Embrios:	NA	Avg. Parity for SCC > 750k:	3

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	26.2	4.77	3.49	4.59	811	9.18
Top 25%	35.0	4.86	3.73	4.94	40	18.39
Breed Avg	29.0	4.44	3.50	4.76	292	15.22
Bottom 25%	22.5	3.96	3.25	4.64	243	11.47

*** 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 61 Holstein Cows

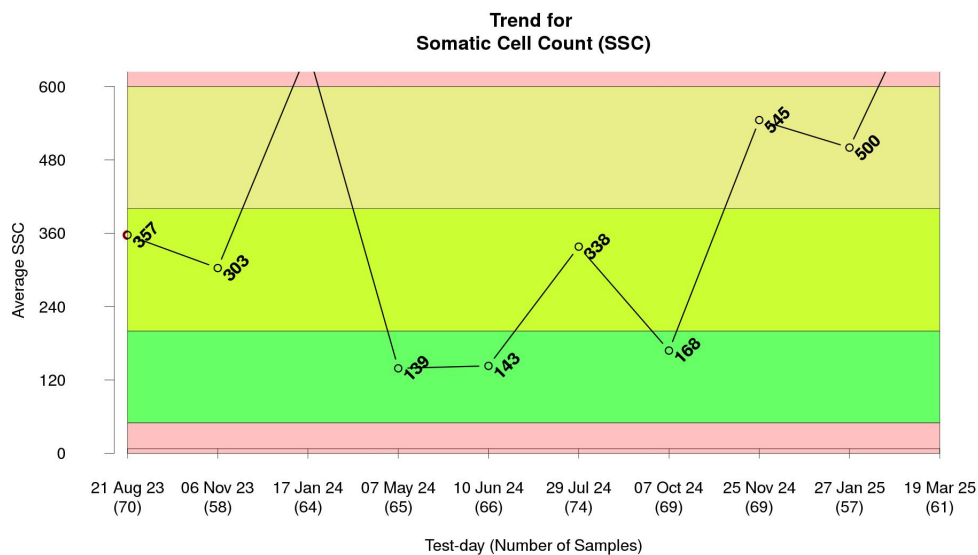
Lactation Group	% of Herd	Early Lactation	Mid Lactation	Late Lactation	% SCC > 200k	% SCC > 750k
1	54.1% (33)	11.5% (7)	11.5% (7)	31.1% (19)	8.2% (5)	3.3% (2)
2	21.3% (13)	0.0% (0)	8.2% (5)	13.1% (8)	9.8% (6)	4.9% (3)
3	11.5% (7)	1.6% (1)	1.6% (1)	8.2% (5)	4.9% (3)	1.6% (1)
4	8.2% (5)	1.6% (1)	0.0% (0)	6.6% (4)	4.9% (3)	3.3% (2)
5	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)
6+	1.6% (1)	0.0% (0)	0.0% (0)	1.6% (1)	1.6% (1)	1.6% (1)
Herd	96.7% (59)	14.7% (9)	21.3% (13)	60.6% (37)	29.4% (18)	14.7% (9)

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 61 Holstein Cows

Lactation Group	Early Lactation		Mid Lactation		Late Lactation	
	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k	% SCC > 200k	% SCC > 750k
1	14.3% (1)	0.0% (0)	14.3% (1)	14.3% (1)	15.8% (3)	5.3% (1)
2	0% (0)	0% (0)	20.0% (1)	20.0% (1)	62.5% (5)	25.0% (2)
3	0.0% (0)	0.0% (0)	100.0% (1)	0.0% (0)	40.0% (2)	20.0% (1)
4	100.0% (1)	0.0% (0)	0% (0)	0% (0)	50.0% (2)	50.0% (2)
5	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)	0% (0)
6+	0% (0)	0% (0)	0% (0)	0% (0)	100.0% (1)	100.0% (1)

Table 6: Bulk Tank Results for 2025-03-19 (Number of Samples Tested: 1)

Tank No	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)	pH
Calculated Tank	4.67	3.41	4.63	691	9	
65 Tank	3.97	3.3	4.62	369	7.2	

**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.

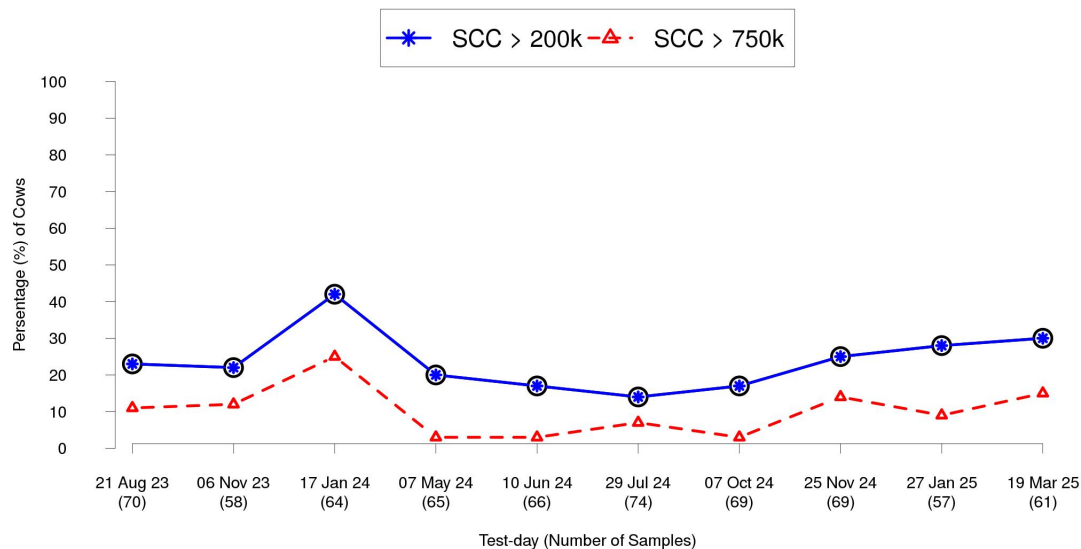


Figure 2: Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day

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.

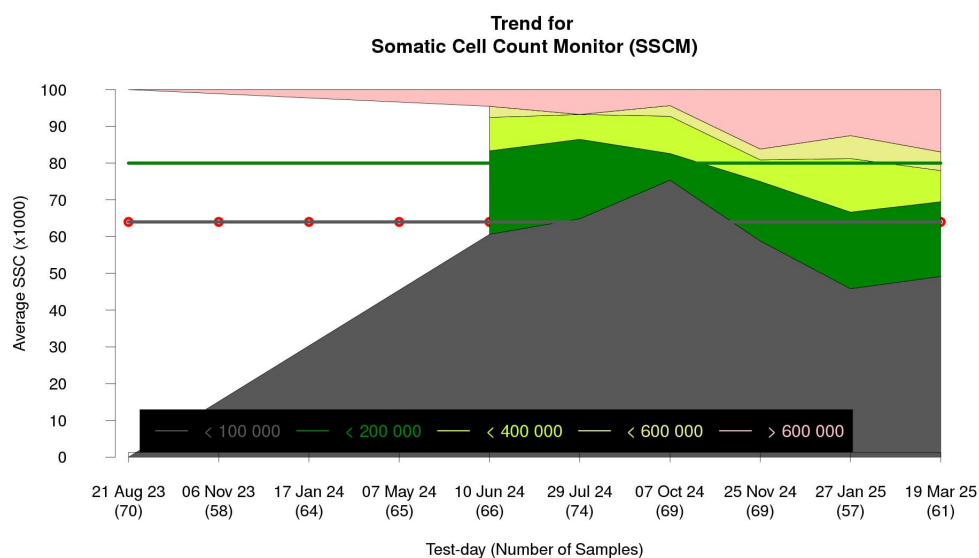


Figure 3: Somatic Cell Count (SCC) Monitor Trend

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.

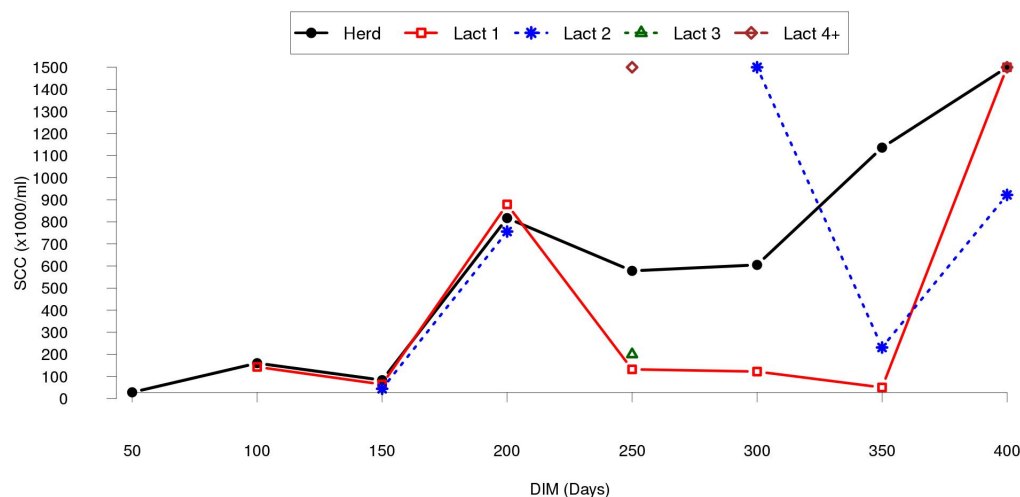


Figure 4: Average Somatic Cell Counts (SCC, x1000/ml) per Day In Milk (DIM)

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.

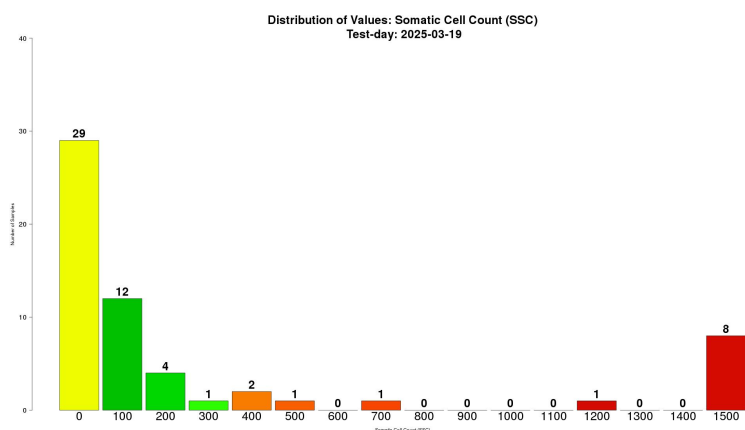


Figure 5: Somatic Cell Count (SCC) Distribution for Test-day (2025-03-19)

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 2025-03-19

SSC Levels	< 100k	100k - 200k	200k - 500k	500k - 800k	800k - 1 500k	> 1 500k
Number Cows	29	12	7	2	1	8
% Cows	49.2 %	20.3 %	11.9 %	3.4 %	1.7 %	13.6 %
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 2025-03-19 for the herd, was 811 000. This figure places the herd in the "Red" SCC Zone and the milk quality is Serious. Milk loss due to SCC is between 10 and 35 %.

Udder Health: You have a serious Mastitis problem in your herd. Check your milking equipment, milking routines and cow management practices. Consult your veterinarian and/or registered animal scientist immediatly. 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
21038	21038 LIWAY SIL	9999	3.79	372	1	13.5
1835	1835	8327	3.81	355	4	24.2
1604	1604	7278	4.39	328	6	29
21019	21019INTACT	4393	4.53	254	2	20.5
1908	1908 INTACT	3008	4.22	234	4	13.7
1919	1919	2725	3.84	365	2	27.2
21003	21003	726	4.54	390	2	28.5
1947	1947 DUNHILL	507	4.58	248	3	13.4

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 2025-03-19	SCC 2025-01-27	SCC 2024-11-25	Production	DIM	Parity	Status
21038	21038 LIWAY SIL	9999	-	43	13.5	372	1	N
1835	1835	8327	-	1077	24.2	355	4	N
1604	1604	7278	-	831	29	328	6	N
21019	21019INTACT	4393	-	25	20.5	254	2	N
1908	1908 INTACT	3008	9803	46	13.7	234	4	N
1919	1919	2725	-	-	27.2	365	2	R
22024	22024LUNAR	2497	1449	905	30.3	180	1	C
21007	21007 INTACT	2057	2057	279	28	196	2	C
20002	20002	1233	278	9999	19.3	271	3	C
21003	21003	726	-	3761	28.5	390	2	R
1947	1947 DUNHILL	507	3046	22	13.4	248	3	N
22017	22017 BRANTLEY	447	250	172	31.8	264	1	R
1945	1945 DUNHILL	427	-	32	33.3	325	2	N
23006	23006	343	-	-	20.6	100	1	N
1915	1915 MEGAMAN	265	-	-	14.3	90	4	N
20032	32MOVER	233	52	46	28.3	127	3	N
20024	20024	223	543	-	39	457	2	N
22013	22013 INTACT	216	136	146	27.2	235	1	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
1915	1915 MEGAMAN	14.3	90	4	0.68	HST
23002	23002 FF TWIN	28.4	92	1	0.68	HST
23007	23007	21.5	73	1	0.71	HST
20033	20033MOVER	40	43	3	0.72	HST
23003	23003	24.6	34	1	0.73	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
ZNDP170045	1745	HST	-	-	-	1924	1629
21006	21006	HST	-	-	-	767	463
ZNDP200029	20029	HST	-	-	-	849	363
-	21005	HST	342	342	1	416	206

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
ZNDP170045	1745	HST	-	-	-	1924	-
ZNDP150019	1519	HST	500	401	5	896	-
ZNDP200029	20029	HST	-	-	-	849	-
21006	21006	HST	-	-	-	767	-
1932	1932 DUNHILL	HST	350	350	1	588	-
-	21031 MOVER	HST	-	-	-	507	-
-	20023	HST	367	367	1	499	-
-	21037 MOVER	HST	-	-	-	487	33.5
21028	21028 FOXCATCHER	HST	-	-	-	487	39.4
ZNDP200016	20016	HST	520	520	1	475	41.5
21027	21027	HST	-	-	-	469	34.4
-	21039 MOVER	HST	-	-	-	469	-
20024	20024	HST	389	389	1	461	39
1915	1915 MEGAMAN	HST	386	429	2	459	14.3
-	20033	HST	-	-	-	446	-
-	22003 LIWAY	HST	-	-	-	444	22.2
-	22001	HST	-	-	-	439	31.1
DZNP210004	21004	HST	333	333	1	421	-
-	21005	HST	342	342	1	416	-
1938	1938 DUNHILL	HST	344	354	2	410	15.2
ZNDP190017	1917 INTACT	HST	441	471	2	406	-