

logix



SA STAMBOEK
STUD BOOK

Logix Melk/Milk

Kudde Gesondheids Verslag / Herd Health Report

VERLORENKLOOF DEVELOPMENT

POSBUS 66
LYDENBURG
1120

cobus@verlorenkloof.co.za,eric@verlorenkloof.co.za

Test-day: 2024-12-09

Friesland Cows

LogixMilk Technical Advisor:

SURETHA FRANCIS

083 584 0814

suretha@studbook.co.za

December 14, 2024

List of Tables

1	Summary for Test-day 2024-12-09 (Number of Samples Tested: 56)	2
2	Quantification of Specific Cases (% of herd) and Loss in Production on 2024-12-09	2
3	Benchmark: Herd with the Top 25%, Average and Bottom 25% for different traits tested the last month of for Friesland Cows	2
4	Summary of Somatic Cell Counts per Lactation Group in the herd for 56 Friesland 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 56 Friesland Cows	3
6	Bulk Tank Results for 2024-12-09 (Number of Samples Tested: 0)	3
7	Somatic Cell Count (SSC) distribution and Milk Loss Monitor 2024-12-09	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 (2024-12-09)	5

HERD HEALTH SUMMARY REPORT

VERLORENKLOOF DEVELOPMENT - Friesland Cows

Table 1: Summary for Test-day 2024-12-09 (Number of Samples Tested: 56)

Analysis	Results	Norms*	% Cows outside norms*
Milk Production (kg)	Avg.: 18.8 Median: 19.0		
Butterfat (%)	Avg.: 4.18 Median: 4.15	3.5 % - 6.0 %	Too Low: 0 % Too High: 0 %
Protein (%)	Avg.: 3.43 Median: 3.41	3.0 % - 4.5 %	Too Low: 0 % Too High: 0 %
Lactose (%)	Avg.: 4.77 Median: 4.79	> 4.7 %	Too Low: 32 %
MUN (mg/dl)	Avg.: 8.14 Median: 8.25	8 - 16 mg/dl	Too Low: 43 % Too High: 0 %
SCC (x1000/ml)	Avg.: 383 Median: 98 % < 100 : 53.6 % % < 200 : 71.4 % % < 500 : 87.5 % % > 750 : 10.7 % % > 1 000 : 10.7 % % > 1 500 : 7.1 %	< 200 > 64 % > 75 % > 92 % < 4.8 % < 1 % NONE	Too High: 10.4 % Too High: 3.6 % Too High: 4.5 % Too High: 5.9 % Too High: 9.7 % Too High: 7.1 %
Butterfat Protein ratio	Average: 1.2	> 1.0	Too High: 0.0 %

Table 2: Quantification of Specific Cases (% of herd) and Loss in Production on 2024-12-09

Loss in Production due to:		Avg/Median SCC (Number (n)):	
SSC (kg per day):	70.2 (6.7 %)	1st Lact Cows:	222/71 (6)
DIM (kg per day):	91.2 (8.7 %)	2nd Lact Cows:	362/74 (10)
		3rd Lact Cows:	486/107 (22)
No. of Cows Under Pressure:	2 (3.6 %)	4th Lact Cows:	117/91 (8)
No. Cows with SCC > 200k:	16 (28.6 %)	5th Lact Cows:	532/288 (9)
No. Cows with SCC > 750k:	6 (10.7 %)	6+ Lact Cows:	99/99 (1)
No. New Infections:	5 (8.9 %)		
No. Recurring Infections:	6 (10.7 %)	Avg. SCC for SCC > 750k (n):	2451 (6)
Cure Rate for SCC > 200k:	22.2 % (2)		
Cure Rate for SCC > 750k:	0.0 % (0)	Avg. Days In Milk (DIM) for Herd:	194
No. Chronic Infections (SCC > 200k):	6 (10.7 %)	Median of DIM for Herd:	174
No. Chronic Infections (SCC > 750k):	2 (3.6 %)		
		Avg. DIM for SCC < 200k (n):	182 (40)
No. of Possible Ketosis Cases:	1	Avg. DIM for SCC > 200k and < 750k (n):	211 (10)
No. of Possible Acidosis Cases:	0	Avg. DIM for SCC > 750k (n):	194 (6)
Avg. Age at First Calf (Months):	32	Avg. Parity for Herd:	3
Avg. Inter-Calf Period (Days):	475	Avg. Parity for SCC < 200k:	3
No. Flushings:	NA	Avg. Parity for SCC > 200k and < 750k:	4
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 Friesland Cows

	Milk Production (kg)	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)
Herd	18.8	4.18	3.43	4.77	383	8.14
Top 25%	44.8	4.41	3.56	4.97	33	11.30
Breed Avg	38.2	4.05	3.34	4.82	300	9.30
Bottom 25%	32.4	3.68	3.12	4.73	255	7.50

*** 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 56 Friesland Cows

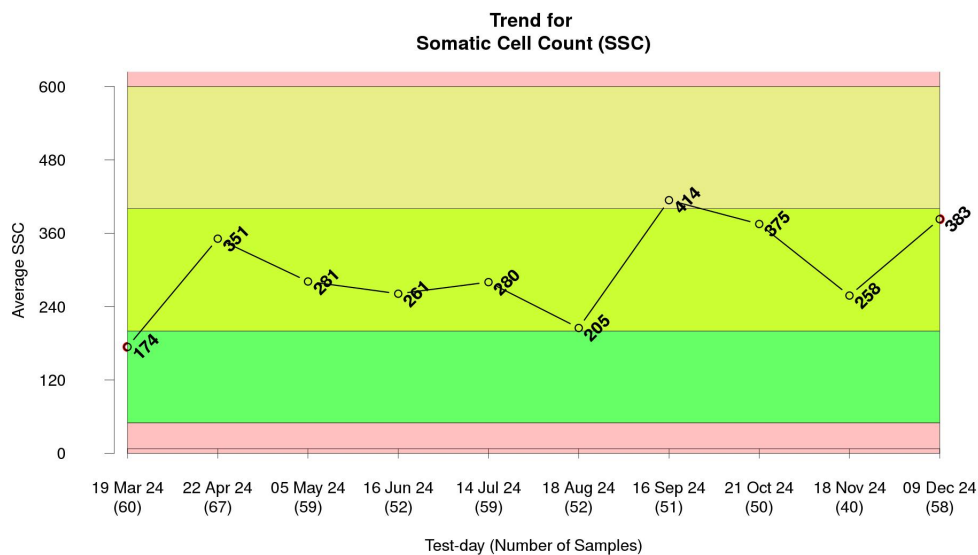
Lactation Group	% of Herd	Early Lactation	Mid Lactation	Late Lactation	% SCC > 200k	% SCC > 750k
1	10.7% (6)	5.4% (3)	1.8% (1)	3.6% (2)	1.8% (1)	1.8% (1)
2	17.9% (10)	3.6% (2)	14.3% (8)	0.0% (0)	3.6% (2)	1.8% (1)
3	39.3% (22)	7.1% (4)	12.5% (7)	19.6% (11)	12.5% (7)	3.6% (2)
4	14.3% (8)	3.6% (2)	1.8% (1)	8.9% (5)	1.8% (1)	0.0% (0)
5	16.1% (9)	3.6% (2)	5.4% (3)	7.1% (4)	8.9% (5)	3.6% (2)
6+	1.8% (1)	0.0% (0)	0.0% (0)	1.8% (1)	0.0% (0)	0.0% (0)
Herd	100.1% (56)	23.3% (13)	35.8% (20)	41% (23)	28.6% (16)	10.8% (6)

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 56 Friesland 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)	0.0% (0)	0.0% (0)	50.0% (1)	50.0% (1)
2	50.0% (1)	0.0% (0)	12.5% (1)	12.5% (1)	0% (0)	0% (0)
3	50.0% (2)	0.0% (0)	28.6% (2)	14.3% (1)	27.3% (3)	9.1% (1)
4	0.0% (0)	0.0% (0)	0.0% (0)	0.0% (0)	20.0% (1)	0.0% (0)
5	0.0% (0)	0.0% (0)	66.7% (2)	33.3% (1)	75.0% (3)	25.0% (1)
6+	0% (0)	0% (0)	0% (0)	0% (0)	0.0% (0)	0.0% (0)

Table 6: Bulk Tank Results for 2024-12-09 (Number of Samples Tested: 0)

Tank No	Butterfat (%)	Protein (%)	Lactose (%)	SCC (x1000/ml)	MUN (mg/dl)	pH
Calculated Tank	4.16	3.41	4.78	375	8	

**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.

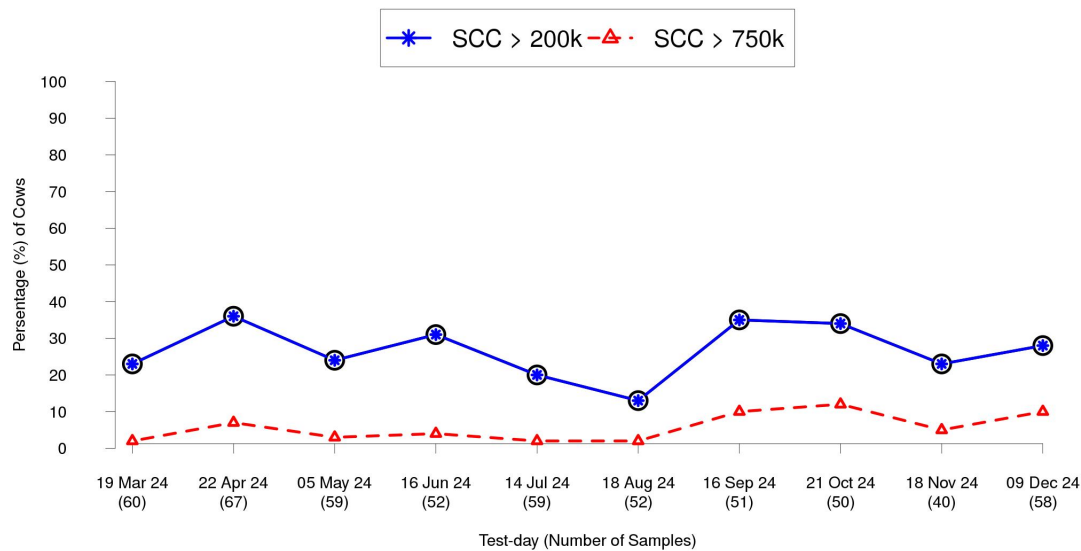


Figure 2: Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day

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.

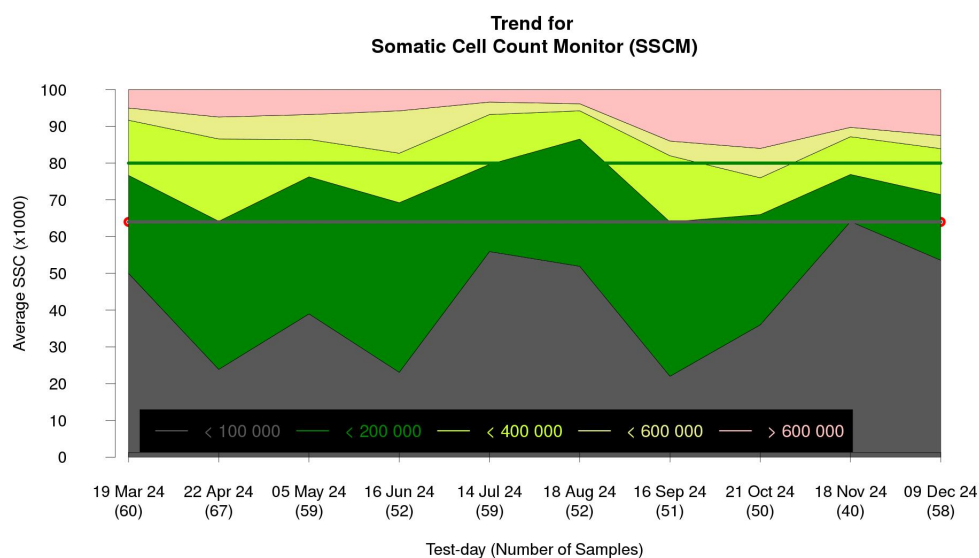


Figure 3: Somatic Cell Count (SCC) Monitor Trend

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.

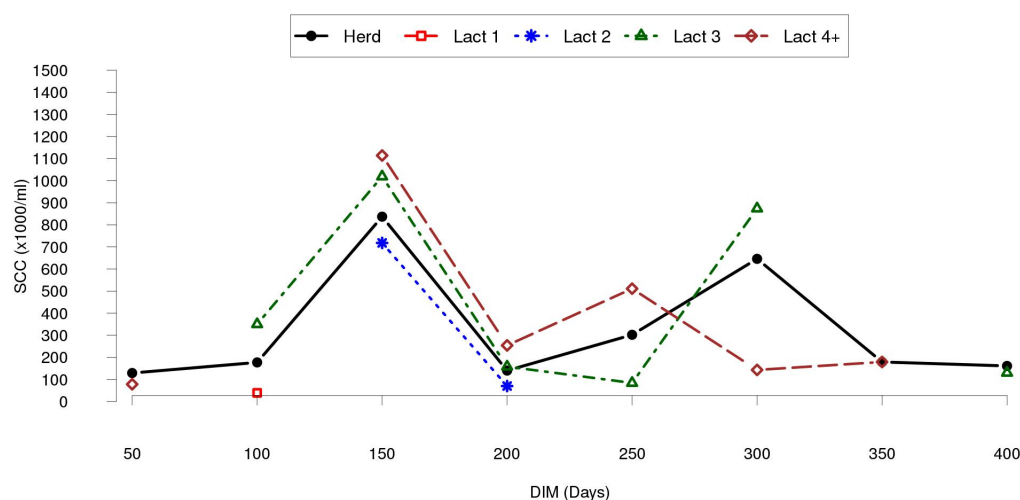


Figure 4: Average Somatic Cell Counts (SCC, x1000/ml) per Day In Milk (DIM)

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.

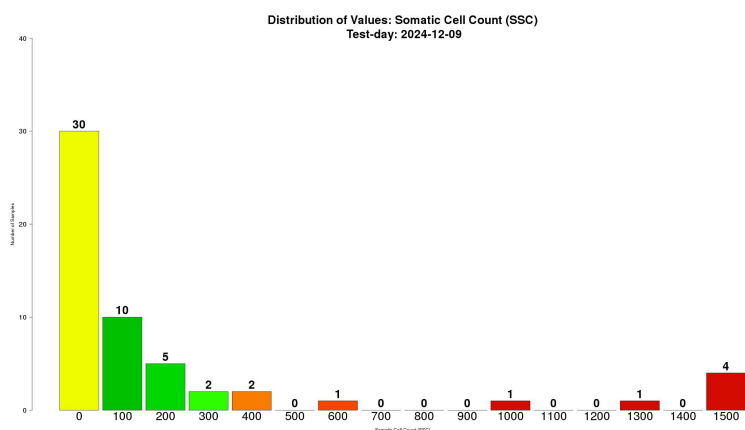


Figure 5: Somatic Cell Count (SCC) Distribution for Test-day (2024-12-09)

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 2024-12-09

SSC Levels	< 100k	100k - 200k	200k - 500k	500k - 800k	800k - 1 500k	> 1 500k
Number Cows	30	10	9	1	2	4
% Cows	53.6 %	17.9 %	16.1 %	1.8 %	3.6 %	7.1 %
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 2024-12-09 for the herd, was 383 000. This figure places the herd in the "Yellow" SCC Zone and the milk quality Needs Improvement. Milk loss due to SCC is between 4 and 8 %.

Udder Health: Mastitis infections are evident and needs slight improvement. Check all management and control measures.

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

Cow ID	Name	SCC	Lactose %	DIM	Parity	Production
201710	201710	2040	4.59	108	5	18.6
201626	201626	1375	4.48	225	5	19

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 2024-12-09	SCC 2024-11-18	SCC 2024-10-21	Production	DIM	Parity	Status
201921	201921	3843	701	225	17	296	3	C
201807	201807	3785	-	92	22	124	3	N
202029	202029	2644	2044	1957	16.8	116	2	C
201710	201710	2040	2988	2688	18.6	108	5	C
201626	201626	1375	-	708	19	225	5	N
202124	202124	1018	-	127	15.4	293	1	N
201809	201809	630	743	3210	22.2	65	3	C
202018	202018	419	-	-	20	18	2	N
201632	201632	417	112	231	19	171	5	R
201819	201819	384	-	100	11	182	3	N
201619	201619	321	386	683	19.2	313	5	CR
201829	201829	290	-	579	17	292	3	R
201629	201629	288	33	-	18.6	364	5	R
201713	201713	286	471	420	16.2	262	4	C
201811	201811	257	-	-	24.6	390	3	R
202005	202005	237	33	339	22.2	54	3	R

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
202031	202031	23	64	2	0.73	FLD

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

Cow ID	Name	Production	DIM	Parity	Prot % to Fat %
--------	------	------------	-----	--------	-----------------

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
VKL 180008	201808	FLD	651	651	1	834	516
VKL 170017	201717	FLD	435	426	3	553	201
VKL 160036	201636	FLD	372	332	4	694	201
VKL 190015	201915	FLD	466	466	1	551	201
VKL 200027	202027	FLD	-	-	-	354	201
VKL 170002	201702	FLD	424	470	3	617	188
201805	201805	FLD	380	438	2	612	188
201722	201722	FLD	288	457	2	464	188
VKL 210012	202112	FLD	-	-	-	412	89
VKL 220014	202214	FLD	-	-	-	103	63

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
VKL 180008	201808	FLD	651	651	1	834	-
VKL 160036	201636	FLD	372	332	4	694	-
VKL 170002	201702	FLD	424	470	3	617	-
201805	201805	FLD	380	438	2	612	-
202018	202018	FLD	-	-	-	565	20
VKL 200019	202019	FLD	-	-	-	563	-
VKL 170017	201717	FLD	435	426	3	553	-
VKL 190015	201915	FLD	466	466	1	551	-
202107	202107	FLD	-	-	-	550	-
201818	201818	FLD	456	456	1	539	18
VKL 160016	201616	FLD	331	345	5	504	-
VKL 170012	201712	FLD	485	366	4	464	-
201722	201722	FLD	288	457	2	464	-
201708	201708	FLD	376	388	4	459	-
201902	201902	FLD	540	540	1	443	-
201802	201802	FLD	460	520	2	443	15
VKL 190026	201926	FLD	543	543	1	440	-
VKL 180020	201820	FLD	-	-	-	418	-
VKL 190044	201944	FLD	614	614	1	416	-
202111	202111	FLD	-	-	-	413	-
VKL 210012	202112	FLD	-	-	-	412	-