



LogixMilk Basic - Report
OAKHURST DAIRY FARM
PO BOX 25
WILDERNESS
6560

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Test day: 2024-10-30

LogixMilk Data Analytical Agent

November 5, 2024

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REPORT SUMMARY

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Table 1: Summary for Test day 2024-10-30
(Number of Samples Tested: 710)

Analysis	Result	Norms*	% Cows outside norms*
Butter fat %	5.68 % ± 1.16 STD	3.5 % - 6.0 %	Too Low: 4 % Too High: 35 %
Protein %	3.92 % ± 0.30 STD	3.0 % - 4.5 %	Too Low: 0 % Too High: 3 %
Lactose %	4.69 % ± 0.19 STD	> 4.8 %	Too Low: 72 %
MUN (mg/dl)	12.50 mg/dl ± 3.34 STD	8 - 16 mg/dl	Too Low: 9 % Too High: 15 %
SCC (1 000 /ml)	Average: 175 % < 100 : 69.9 % % < 200 : 84.2 % % < 400 : 93.0 % % > 600 : 4.1 % % > 1 000 : 2.7 % % > 1 500 : 2.0 %	< 200 > 64 % > 75 % > 90 % < 5 % < 1 % NONE	Too High: 0 % Too High: 0 % Too High: 0 % Too High: 0 % Too High: 1.7 % Too High: 2.0 %
Butter fat:Protein ratio	Average: 1.4	> 1.0	Too High: 5.6 %

*** PLEASE CONSULT YOUR VETERINARIAN, PROFESSIONAL ANIMAL SCIENTIST Stud Book TECHNICAL ADVISOR or Schalk Greyling (082 807 1544, schalk@studbook.co.za) for the interpretation of these results and professional advise.**

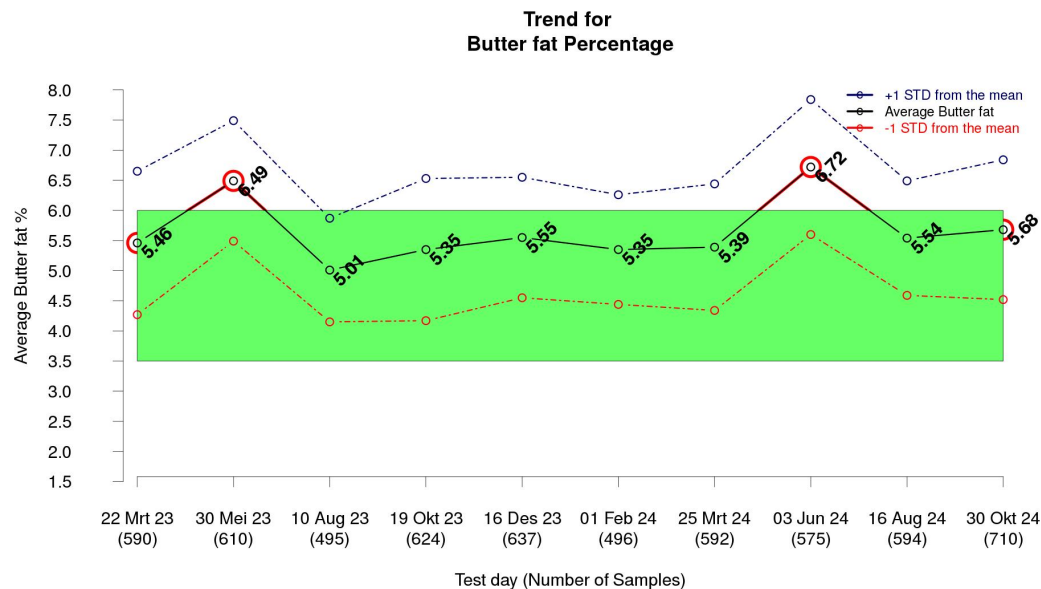


Figure 1: Butter fat % Trend

The butter fat % graph should never be evaluated in isolation as lower milk productions will inevitably lead to higher butter fat. The acceptable average butter fat % is indicated in the green area. When the average butter fat is lower than the green area, it could be because of a lack of effective fibre in the ration available to the cows. This lack of effective fibre could also be caused by a ration rapidly moving through the digestive system resulting in less effective absorption of nutrients.

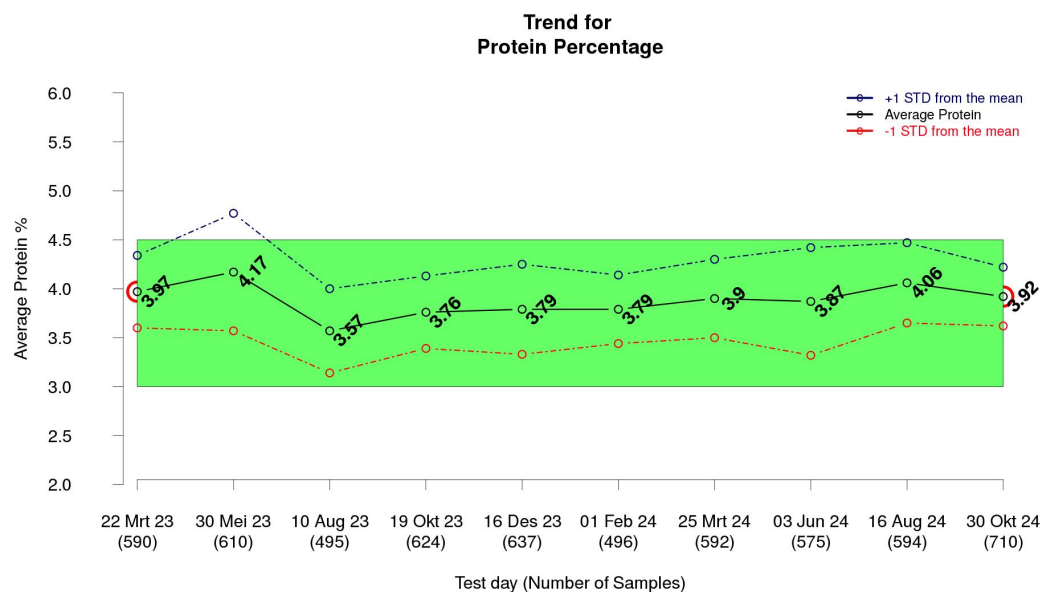


Figure 2: Protein % Trend

The protein % graph should not be seen in isolation as milk volume could play a role in the values. The protein percentage changes during the lactation with lower values in early lactation and a higher % later in lactation. A low milk protein % could be the symptom of an energy deficiency in the ration. Low milk protein % points to a negative energy balance in early lactation cows.

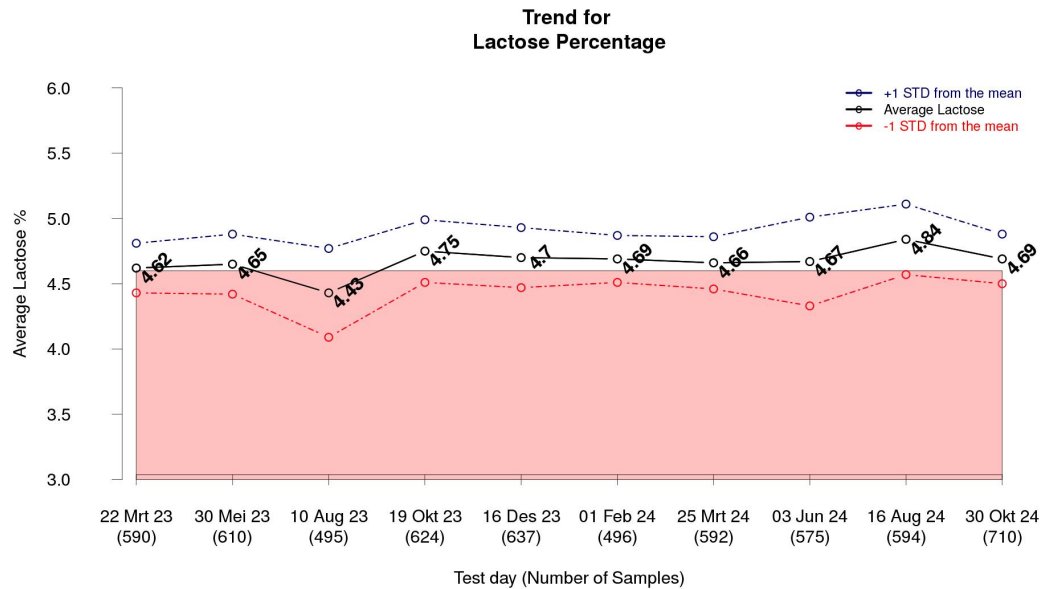


Figure 3: Lactose % Trend

Lactose in milk is usually an indicator of possible stress factors in the herd. The possible danger zone is indicated in pink. Healthy happy cows normally have a milk lactose % over 4.8 %.

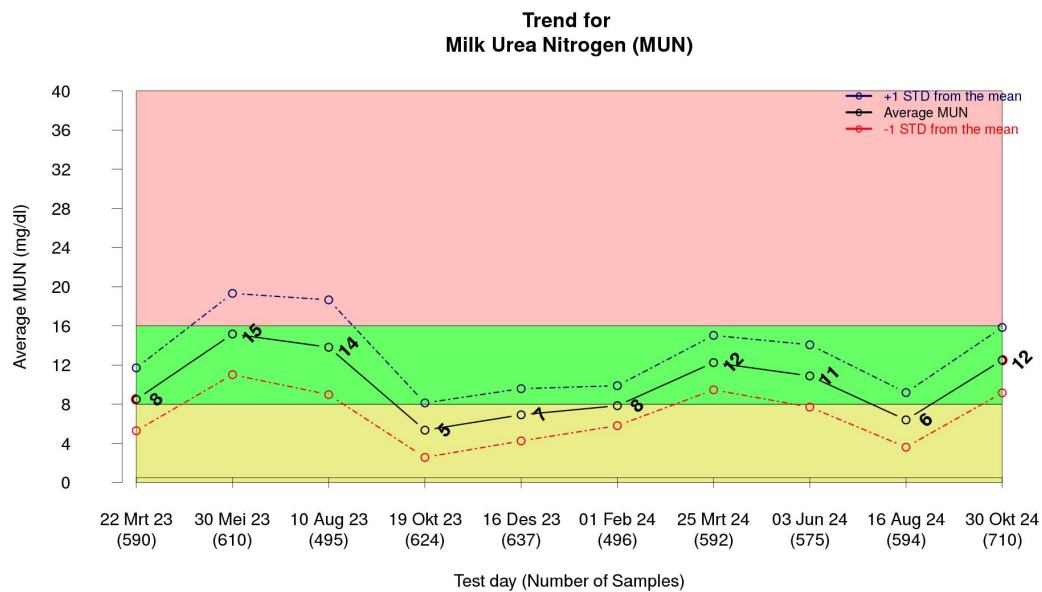


Figure 4: Milk Urea Nitrogen (MUN) Trend

The Milk Urea Nitrogen (MUN) figure is an indicator for crude protein. The ideal area for milk urea levels is between 8 and 16 mg/dl (Green area). MUN of less than 8 mg/dl usually indicates low intakes of crude protein and extremely high values of more than 16 mg/dl indicates excess crude protein intakes. High values (over 16 mg/dl) cause lower production and reproduction performances in cows as energy is needed to break down and ridding the body from the oversupply of crude protein. These processes also causes a change in the pH (acidity) of the uterus and result in embryonic loss and the a resultant longer calving interval (as well as productive herd life). High MUN values can also lead to higher Somatic Cell Counts as it effects the general well being of the cows.

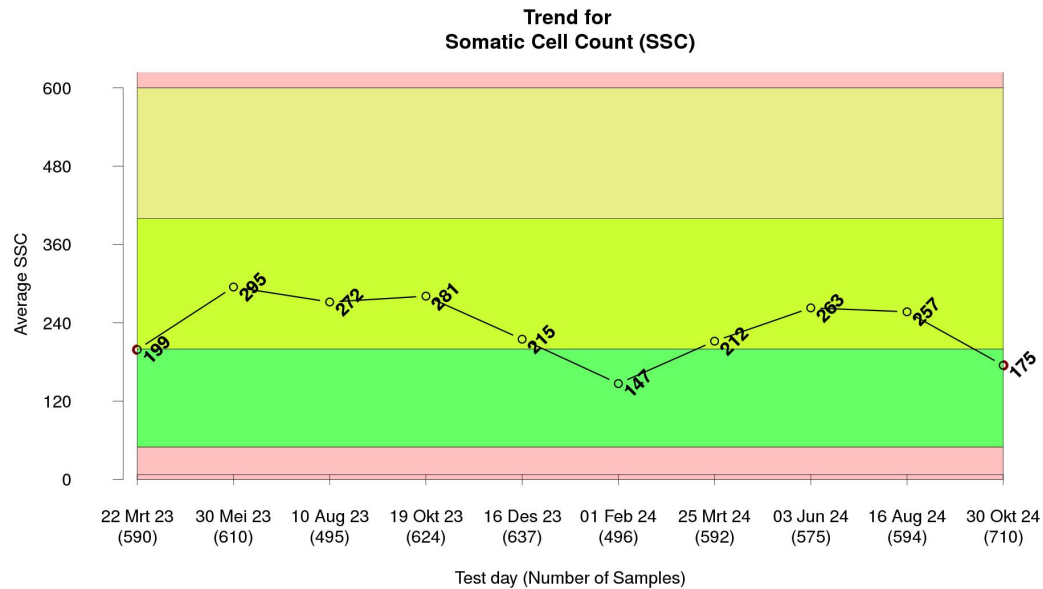


Figure 5: Somatic Cell Count (SCC) Trend

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. If animals with high SCC can be identified early they can be treated in time preventing production loss.

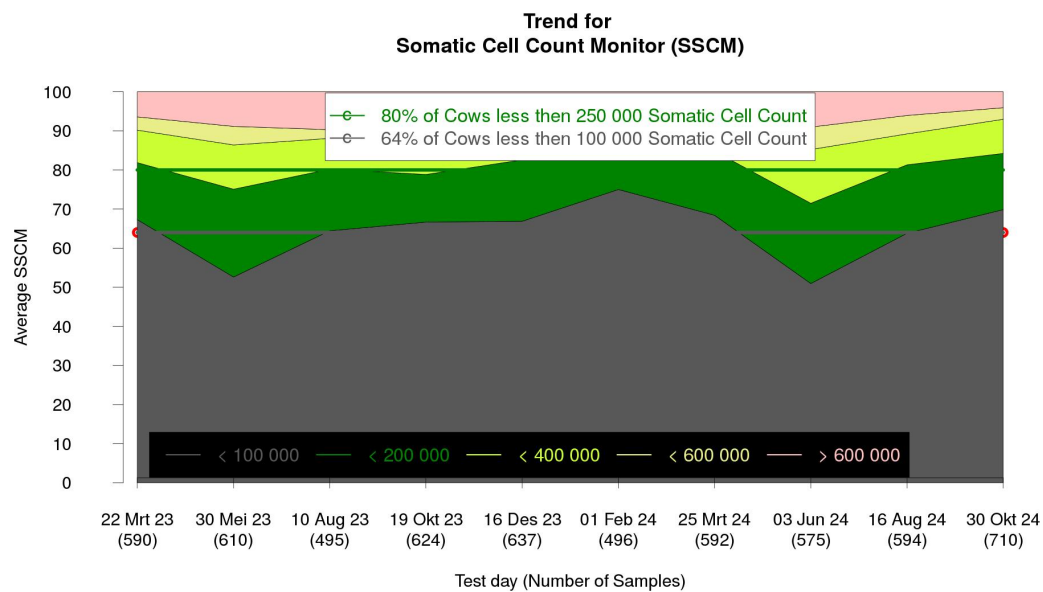


Figure 6: Somatic Cell Count (SCC) Monitor Trend

The graph shows the percentage animals within different Somatic Cell Count (SCC) levels. In an ideal situation at least 64% of the cows should have SCC less than 100 000 and 80% less than 250 000. The red area is the danger zone and should represent as few cows as possible.

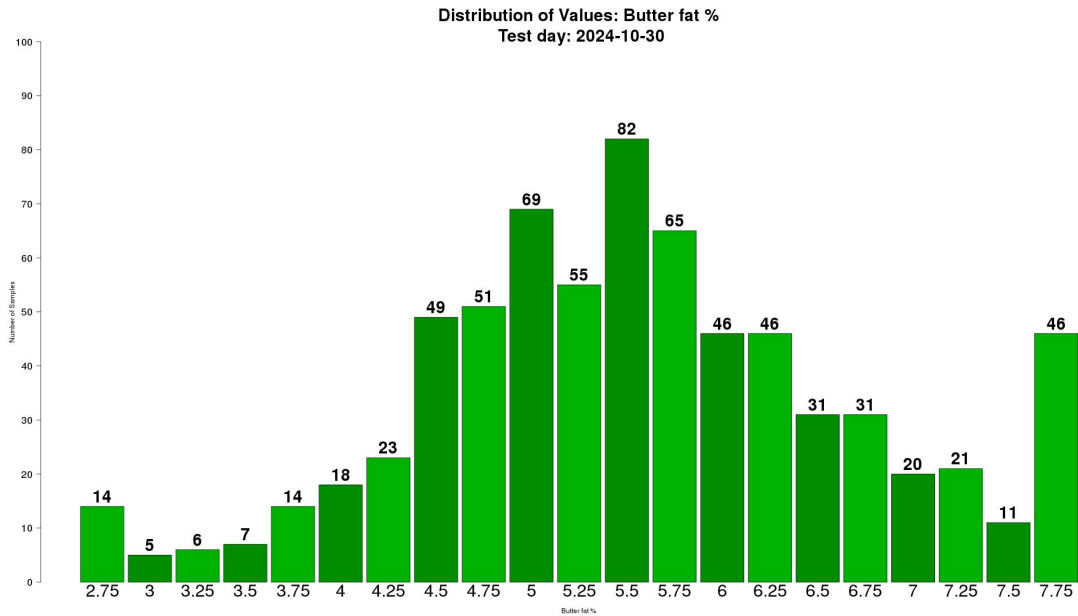


Figure 7: Butter fat % Distribution for Test day (2024-10-30)

The graph shows the number of animals within certain Butterfat % limits. It should be noted that late lactation animals might produce less milk per day resulting in higher butter fat percentages.

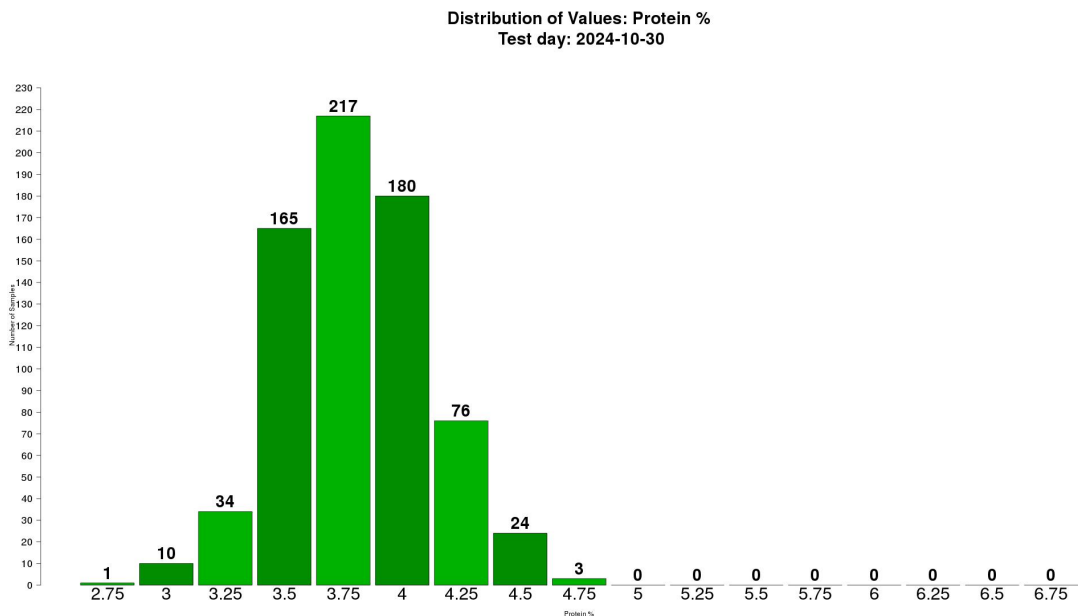


Figure 8: Protein % Distribution for Test day (2024-10-30)

The graph depicts the number of animals within certain levels of Protein %. It should be noted that late lactation animals might produce less milk resulting in higher Protein percentage in their milk. Extremely low protein percentage might also be an indicator of inadequate energy available for lactating cows.

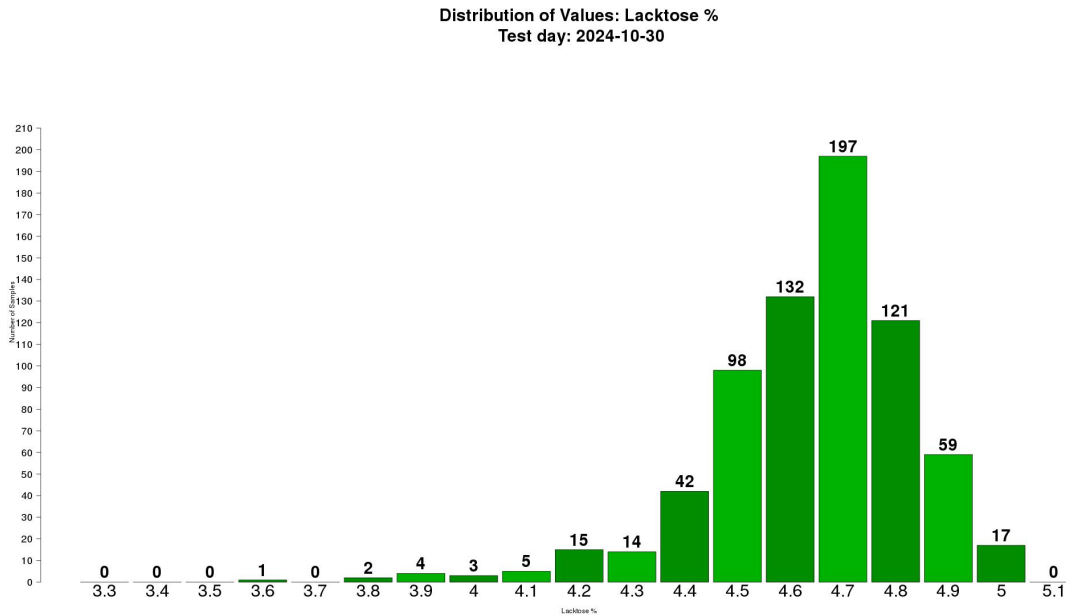


Figure 9: Lacktose % Distribution for Test day (2024-10-30)

The graph depicts the number of animals within certain levels of lactose in their milk. Lactose % less than 4.6% could indicate stress in the herd.

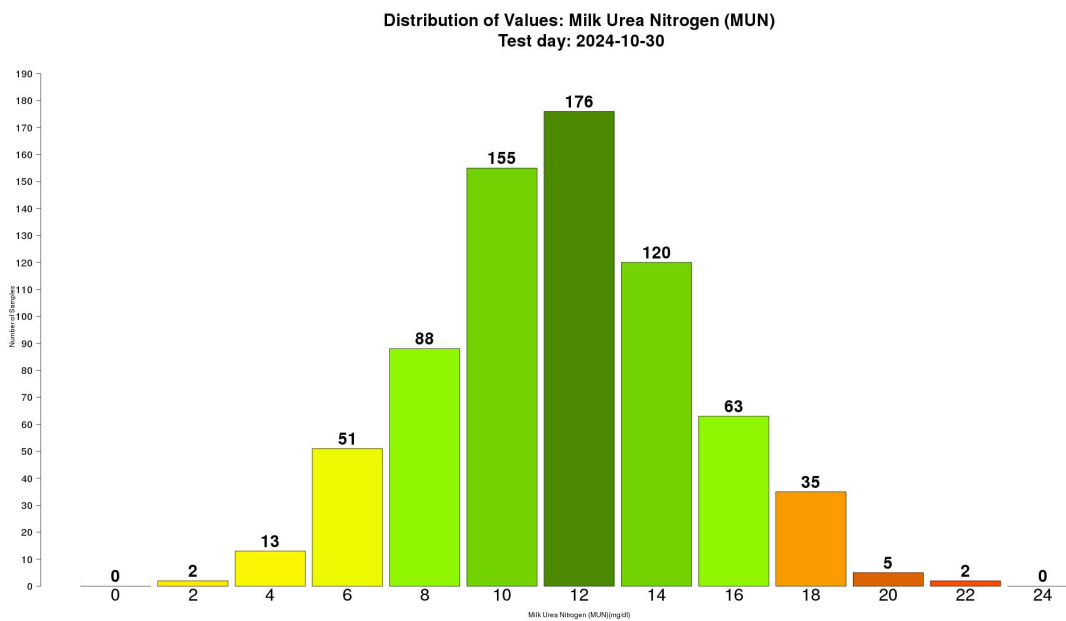


Figure 10: Milk Urea Nitrogen (MUN) Distribution for Test day (2024-10-30)

The graph depicts the number of animals differing in the Milk Urea Nitrogen in their milk. A bigger number of animals with MUN levels higher than 16 mg/dl could result in negative effects on milk production as well as on herd fertility. Other factors could be the type of protein fed, energy balance and wastage of expensive feed.

Distribution of Values: Somatic Cell Count (SCC)
Test day: 2024-10-30

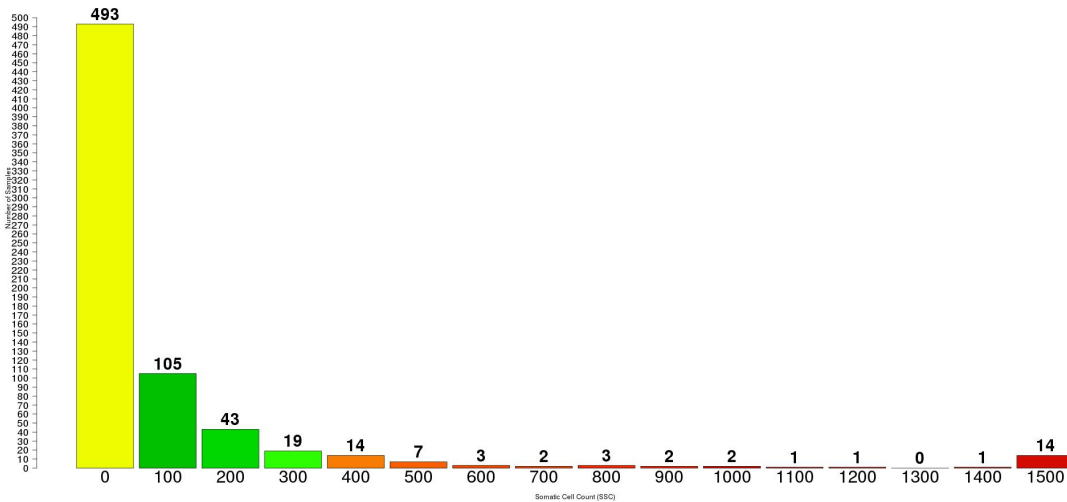


Figure 11: Somatic Cell Count (SCC) Distribution for Test day (2024-10-30)

The graph depicts the number of animals within certain boundaries of Somatic Cell Counts (SCC). If the animals with SCCs higher than 600 000 can be identified in time, they can be treated or even culled from the herd.

Table 2: Somatic Cell Count (SCC) distribution and Milk Loss
Monitor 2024-10-30

SSC Levels	< 100k	100k - 200k	200k - 500k	500k - 800k	800k - 1 500k	> 1 500k
Number	493	105	76	12	10	14
Percentages	69.4 %	14.8 %	10.7 %	1.7 %	1.4 %	2.0 %
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 2024-10-30 for the herd, was 175 000. This figure places the herd in the Light Green SCC Zone and the milk quality is Very Good. Milk loss due to SCC is between 2 and 4 %.

Udder Health: You do not have a major mastitis problem but there may be problems with individual cows. Assess your mastitis control procedures.

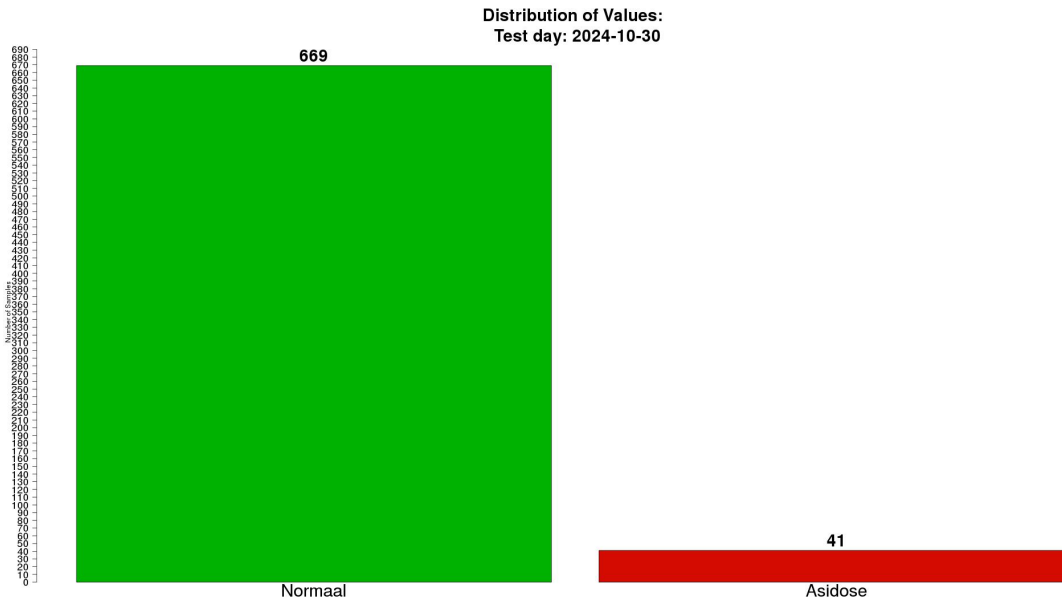


Figure 12: Butter fat::Protein Ratio for Test day (2024-10-30)

The graph depicts the Butterfat:Protein ratio. As soon as the percentage protein of a particular cow's milk exceeds the percentage butterfat (butterfat:protein ratio less than 1), she is in danger of being in a state of Acidosis. The pH in the rumen drops (acid) due to lower quality roughage. Milk production will drop and in extreme cases the cow's life is also in danger. This will obviously lead to financial loss. In these cases, please contact your registered animal scientist/nutritional consultant.

On the 2024-10-30, 41 cows were in a state of Acidosis.