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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**

**SOUTHSTREET-EAST, HATFIELD**

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**Test-day: 2025-06-03**

**Holstein Cows**

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## HERD HEALTH SUMMARY REPORT

UNIVERSITEIT VAN PRETORIA - Holstein Cows

**Table 1:** Summary for Test-day 2025-06-03 (Number of Samples Tested: 55)

| Analysis                | Results                                                                                                                                       | Norms*                                                          | % Cows outside norms*                                                                                          |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Milk Production (kg)    | Avg.: 28.3 Median: 28.2                                                                                                                       |                                                                 |                                                                                                                |
| Butterfat (%)           | Avg.: 4.85 Median: 4.64                                                                                                                       | 3.5 % - 6.0 %                                                   | Too Low: 0 %<br>Too High: 9 %                                                                                  |
| Protein (%)             | Avg.: 3.49 Median: 3.50                                                                                                                       | 3.0 % - 4.5 %                                                   | Too Low: 5 %<br>Too High: 2 %                                                                                  |
| Lactose (%)             | Avg.: 4.68 Median: 4.72                                                                                                                       | > 4.7 %                                                         | Too Low: 44 %                                                                                                  |
| MUN (mg/dl)             | Avg.: 14.97 Median: 15.10                                                                                                                     | 8 - 16 mg/dl                                                    | Too Low: 2 %<br>Too High: 29 %                                                                                 |
| SCC (x1000/ml)          | Avg.: 355 Median: 71<br>% < 100 : 56.4 %<br>% < 200 : 70.9 %<br>% < 500 : 83.6 %<br>% > 750 : 9.1 %<br>% > 1 000 : 7.3 %<br>% > 1 500 : 7.3 % | < 200<br>> 64 %<br>> 75 %<br>> 92 %<br>< 4.8 %<br>< 1 %<br>NONE | Too High: 7.6 %<br>Too High: 4.1 %<br>Too High: 8.4 %<br>Too High: 4.3 %<br>Too High: 6.3 %<br>Too High: 7.3 % |
| 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 2025-06-03

| Loss in Production due to:           |                | Avg/Median SCC (Number (n)):            |              |
|--------------------------------------|----------------|-----------------------------------------|--------------|
| SSC (kg per day):                    | 103.8 (6.7 %)  | 1st Lact Cows:                          | 282/62 (33)  |
| DIM (kg per day):                    | 752.3 (48.3 %) | 2nd Lact Cows:                          | 215/119 (12) |
| No. of Cows Under Pressure:          | 4 (7.3 %)      | 3rd Lact Cows:                          | 721/53 (8)   |
| No. Cows with SCC > 200k:            | 16 (29.1 %)    | 4th Lact Cows:                          | 925/925 (2)  |
| No. Cows with SCC > 750k:            | 5 (9.1 %)      | 5th Lact Cows:                          | 0/ (0)       |
| No. New Infections:                  | 11 (20.0 %)    | 6+ Lact Cows:                           | 0/ (0)       |
| No. Recurring Infections:            | 5 (9.1 %)      | Avg. SCC for SCC > 750k (n):            | 2513 (5)     |
| Cure Rate for SCC > 200k:            | 52.2 % (12)    | Avg. Days In Milk (DIM) for Herd:       | 313          |
| Cure Rate for SCC > 750k:            | 60.0 % (3)     | Median of DIM for Herd:                 | 330          |
| No. Chronic Infections (SCC > 200k): | 0 (0.0 %)      | Avg. DIM for SCC < 200k (n):            | 329 (39)     |
| No. Chronic Infections (SCC > 750k): | 0 (0.0 %)      | Avg. DIM for SCC > 200k and < 750k (n): | 318 (11)     |
| No. of Possible Ketosis Cases:       | 5              | Avg. DIM for SCC > 750k (n):            | 175 (5)      |
| No. of Possible Acidosis Cases:      | 0              | Avg. Parity for Herd:                   | 2            |
| Avg. Age at First Calf (Months):     | 26             | Avg. Parity for SCC < 200k:             | 2            |
| Avg. Inter-Calf Period (Days):       | 426            | Avg. Parity for SCC > 200k and < 750k:  | 2            |
| No. Flushings:                       | NA             | Avg. Parity for SCC > 750k:             | 2            |
| 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) |
|-------------------|----------------------|---------------|-------------|-------------|----------------|-------------|
| <b>Herd</b>       | 28.3                 | 4.85          | 3.49        | 4.68        | 355            | 14.97       |
| <b>Top 25%</b>    | 35.7                 | 4.89          | 3.88        | 4.78        | 40             | 19.70       |
| <b>Breed Avg</b>  | 29.0                 | 4.32          | 3.59        | 4.60        | 308            | 15.02       |
| <b>Bottom 25%</b> | 21.4                 | 3.73          | 3.28        | 4.49        | 264            | 10.30       |

**\* 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 55 Holstein Cows

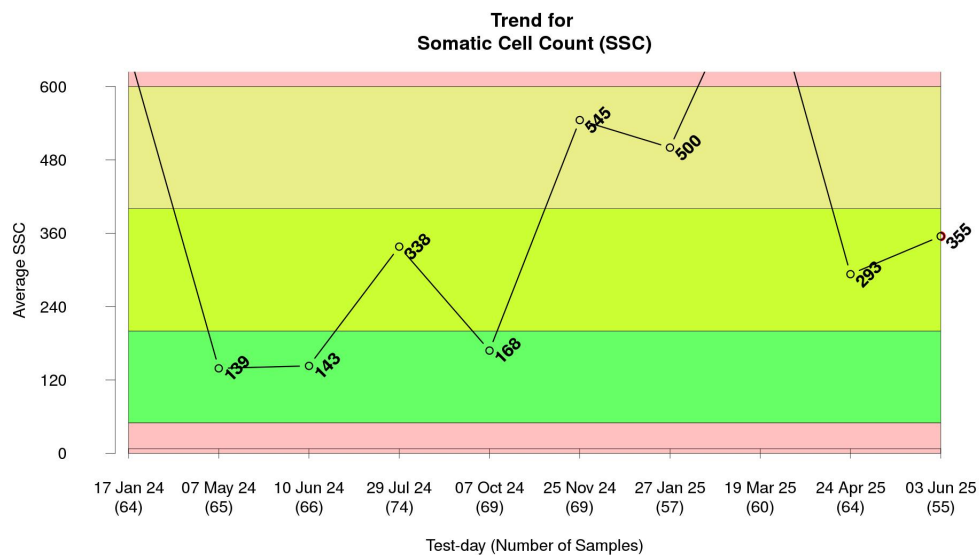
| Lactation Group | % of Herd  | Early Lactation | Mid Lactation | Late Lactation | % SCC > 200k | % SCC > 750k |
|-----------------|------------|-----------------|---------------|----------------|--------------|--------------|
| <b>1</b>        | 60.0% (33) | 7.3% (4)        | 10.9% (6)     | 41.8% (23)     | 16.4% (9)    | 5.5% (3)     |
| <b>2</b>        | 21.8% (12) | 0.0% (0)        | 0.0% (0)      | 21.8% (12)     | 7.3% (4)     | 0.0% (0)     |
| <b>3</b>        | 14.5% (8)  | 1.8% (1)        | 1.8% (1)      | 10.9% (6)      | 3.6% (2)     | 1.8% (1)     |
| <b>4</b>        | 3.6% (2)   | 1.8% (1)        | 0.0% (0)      | 1.8% (1)       | 1.8% (1)     | 1.8% (1)     |
| <b>5</b>        | 0.0% (0)   | 0.0% (0)        | 0.0% (0)      | 0.0% (0)       | 0.0% (0)     | 0.0% (0)     |
| <b>6+</b>       | 0.0% (0)   | 0.0% (0)        | 0.0% (0)      | 0.0% (0)       | 0.0% (0)     | 0.0% (0)     |
| <b>Herd</b>     | 99.9% (55) | 10.9% (6)       | 12.7% (7)     | 76.3% (42)     | 29.1% (16)   | 9.1% (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 55 Holstein Cows

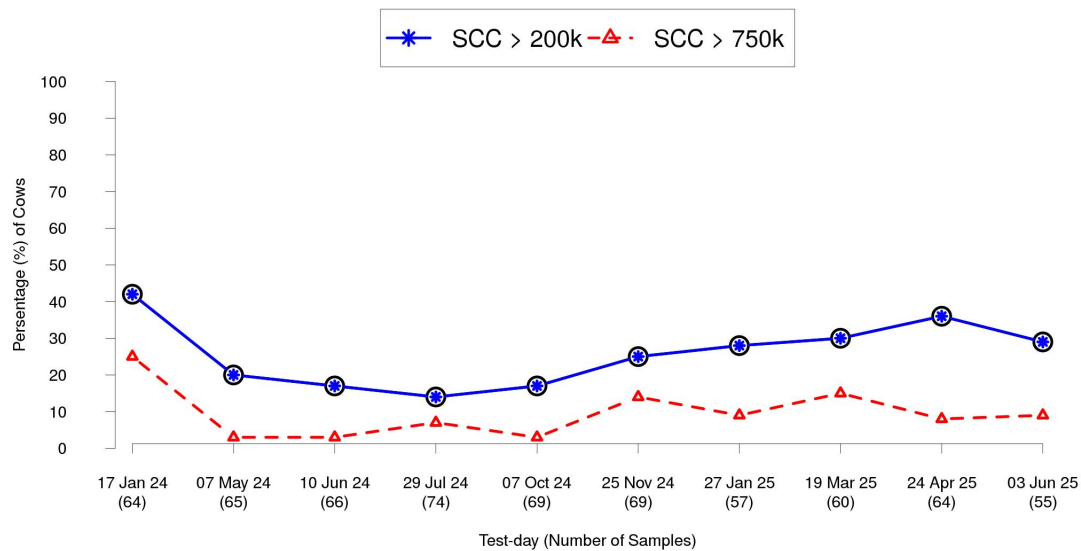
| Lactation Group | Early Lactation |              | Mid Lactation |              | Late Lactation |              |
|-----------------|-----------------|--------------|---------------|--------------|----------------|--------------|
|                 | % SCC > 200k    | % SCC > 750k | % SCC > 200k  | % SCC > 750k | % SCC > 200k   | % SCC > 750k |
| <b>1</b>        | 75.0% (3)       | 50.0% (2)    | 33.3% (2)     | 0.0% (0)     | 17.4% (4)      | 4.3% (1)     |
| <b>2</b>        | 0% (0)          | 0% (0)       | 0% (0)        | 0% (0)       | 33.3% (4)      | 0.0% (0)     |
| <b>3</b>        | 0.0% (0)        | 0.0% (0)     | 100.0% (1)    | 0.0% (0)     | 16.7% (1)      | 16.7% (1)    |
| <b>4</b>        | 100.0% (1)      | 100.0% (1)   | 0% (0)        | 0% (0)       | 0.0% (0)       | 0.0% (0)     |
| <b>5</b>        | 0% (0)          | 0% (0)       | 0% (0)        | 0% (0)       | 0% (0)         | 0% (0)       |
| <b>6+</b>       | 0% (0)          | 0% (0)       | 0% (0)        | 0% (0)       | 0% (0)         | 0% (0)       |

**Table 6:** Bulk Tank Results for 2025-06-03 (Number of Samples Tested: 1)

| Tank No         | Butterfat (%) | Protein (%) | Lactose (%) | SCC (x1000/ml) | MUN (mg/dl) | pH |
|-----------------|---------------|-------------|-------------|----------------|-------------|----|
| Calculated Tank | 4.79          | 3.45        | 4.69        | 375            | 15          |    |
| 58 Tank         | 4.13          | 3.47        | 4.65        | 352            | 12.4        |    |

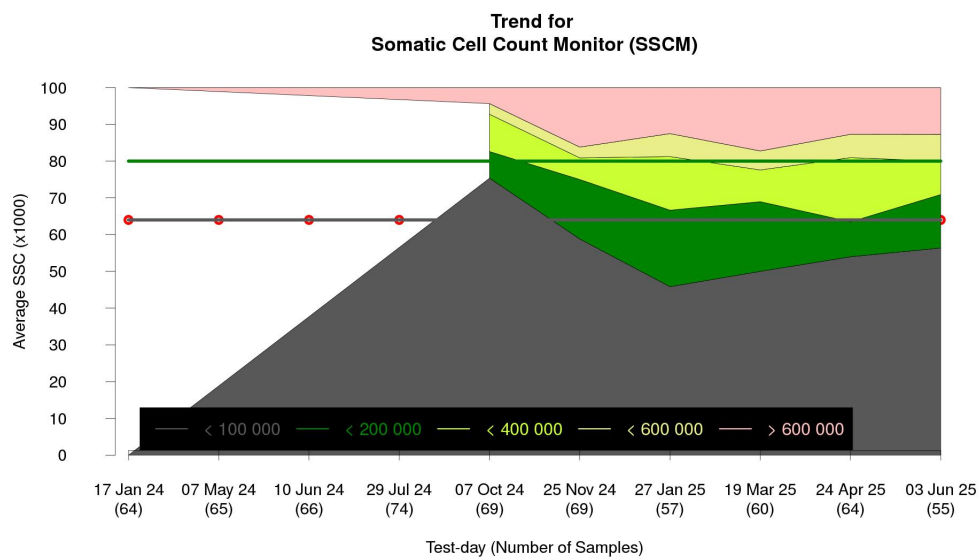
**Figure 1:** Somatic Cell Count (SCC) Trend

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.



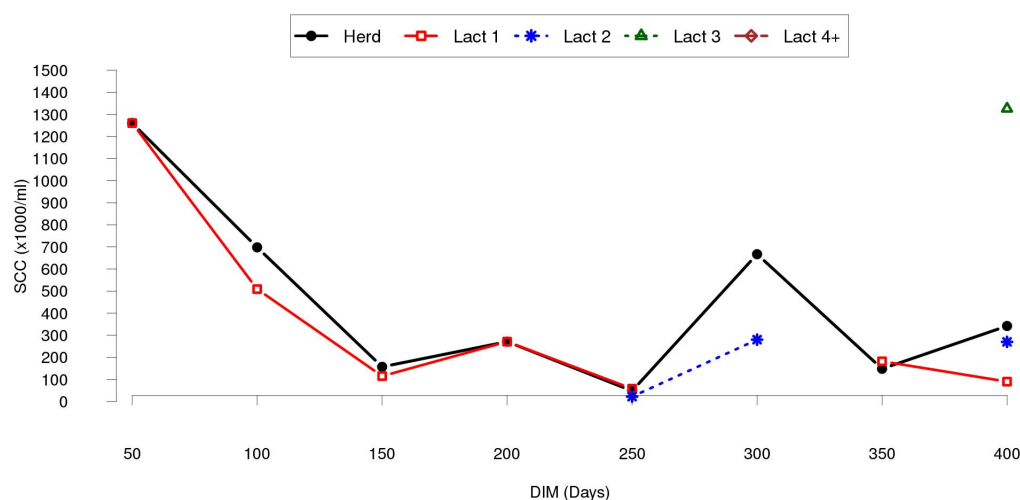
**Figure 2:** Percentage (%) of Cows with Somatic Cell Counts (SCC) more than 200k and 750k, respectively, per Test-day

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.



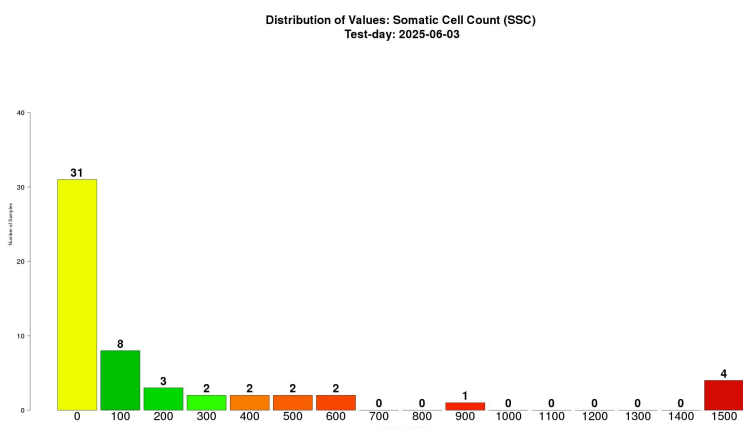
**Figure 3:** Somatic Cell Count (SCC) Monitor Trend

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 (2025-06-03)

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 2025-06-03

| SSC Levels          | < 100k    | 100k - 200k | 200k - 500k       | 500k - 800k | 800k - 1 500k | > 1 500k |
|---------------------|-----------|-------------|-------------------|-------------|---------------|----------|
| Number Cows         | 31        | 8           | 7                 | 4           | 1             | 4        |
| % Cows              | 56.4 %    | 14.5 %      | 12.7 %            | 7.3 %       | 1.8 %         | 7.3 %    |
| 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 2025-06-03 for the herd, was 355 000. 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)

| <b>Cow ID</b> | <b>Name</b>   | <b>SCC</b> | <b>Lactose %</b> | <b>DIM</b> | <b>Parity</b> | <b>Production</b> |
|---------------|---------------|------------|------------------|------------|---------------|-------------------|
| 1940          | 1940 DUNHILL  | 5235       | 4.57             | 456        | 3             | 42.5              |
| 23002         | 23002 FF TWIN | 686        | 4.28             | 168        | 1             | 27.8              |
| 21007         | 21007 INTACT  | 671        | 4.56             | 272        | 2             | 29.4              |
| 1945          | 1945 DUNHILL  | 569        | 4.37             | 401        | 2             | 14                |

**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<br>2025-06-03 | SCC<br>2025-04-24 | SCC<br>2025-03-19 | Production | DIM | Parity | Status |
|--------|------------------|-------------------|-------------------|-------------------|------------|-----|--------|--------|
| 1940   | 1940 DUNHILL     | 5235              | -                 | -                 | 42.5       | 456 | 3      | R      |
| 22024  | 22024LUNAR       | 2426              | 30                | 2497              | 26.2       | 256 | 1      | R      |
| 23010  | 23010 LUNAR      | 2216              | 646               | -                 | 16.6       | 50  | 1      | N      |
| 1936   | 1936 MEGAMAN     | 1741              | 384               | -                 | 25.4       | 61  | 4      | N      |
| 23012  | 23012LUNAR       | 948               | 238               | -                 | 29.3       | 51  | 1      | N      |
| 23002  | 23002 FF TWIN    | 686               | 168               | 32                | 27.8       | 168 | 1      | N      |
| 21007  | 21007 INTACT     | 671               | 52                | 2057              | 29.4       | 272 | 2      | R      |
| 22003  | 22003 LIWAY      | 590               | 75                | 69                | 31.5       | 516 | 1      | N      |
| 1945   | 1945 DUNHILL     | 569               | 119               | 427               | 14         | 401 | 2      | R      |
| 22016  | 22016 VEKOMO     | 486               | -                 | 28                | 13.7       | 335 | 1      | N      |
| 21003  | 21003            | 432               | 46                | 726               | 38.1       | 466 | 2      | R      |
| 20031  | 20031            | 324               | 3674              | -                 | 30.2       | 468 | 2      | N      |
| 23011  | 23011LUNAR       | 306               | 437               | -                 | 25.6       | 50  | 1      | N      |
| 20033  | 20033MOVER       | 281               | 25                | 21                | 34.8       | 119 | 3      | N      |
| 21028  | 21028 FOXCATCHER | 237               | 28                | 134               | 29.5       | 559 | 1      | N      |
| 23007  | 23007            | 201               | 633               | 194               | 20.7       | 149 | 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 |
|--------|--------------|------------|-----|--------|-----------------|-------|
| 23011  | 23011LUNAR   | 25.6       | 50  | 1      | 0.63            | HST   |
| 23010  | 23010 LUNAR  | 16.6       | 50  | 1      | 0.68            | HST   |
| 23012  | 23012LUNAR   | 29.3       | 51  | 1      | 0.69            | HST   |
| 21004  | 21004        | 7.8        | 69  | 3      | 0.69            | HST   |
| 1936   | 1936 MEGAMAN | 25.4       | 61  | 4      | 0.74            | HST   |

**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

| <b>Cow ID</b> | <b>Name</b> | <b>Breed</b> | <b>Last ICP</b> | <b>Avg. ICP</b> | <b>No. ICPs</b> | <b>Days Since Last Calf</b> | <b>Days Open</b> |
|---------------|-------------|--------------|-----------------|-----------------|-----------------|-----------------------------|------------------|
| 1745          | 1745        | HST          | -               | -               | -               | 2001                        | 1707             |
| 21006         | 21006       | HST          | -               | -               | -               | 844                         | 541              |
| ZNDP200029    | 20029       | HST          | -               | -               | -               | 926                         | 441              |
| -             | 21005       | HST          | 342             | 342             | 1               | 493                         | 284              |
| -             | 20023       | HST          | 367             | 367             | 1               | 576                         | 214              |

**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   | -        | -        | -        | 2001                 | -          |
| ZNDP150019 | 1519             | HST   | 500      | 401      | 5        | 973                  | -          |
| ZNDP200029 | 20029            | HST   | -        | -        | -        | 926                  | -          |
| 21006      | 21006            | HST   | -        | -        | -        | 844                  | -          |
| 1932       | 1932 DUNHILL     | HST   | 350      | 350      | 1        | 665                  | -          |
| 21031      | 21031 MOVER      | HST   | -        | -        | -        | 584                  | -          |
| -          | 20023            | HST   | 367      | 367      | 1        | 576                  | -          |
| -          | 21028 FOXCATCHER | HST   | -        | -        | -        | 564                  | 29.5       |
| -          | 21037 MOVER      | HST   | -        | -        | -        | 564                  | 29.3       |
| 20016      | 20016            | HST   | 520      | 520      | 1        | 552                  | -          |
| 21027      | 21027            | HST   | -        | -        | -        | 546                  | 35.2       |
| -          | 21039 MOVER      | HST   | -        | -        | -        | 546                  | -          |
| -          | 20024            | HST   | 389      | 389      | 1        | 538                  | 34.6       |
| -          | 20033            | HST   | -        | -        | -        | 523                  | -          |
| -          | 22003 LIWAY      | HST   | -        | -        | -        | 521                  | 31.5       |
| 22001      | 22001            | HST   | -        | -        | -        | 516                  | 24.7       |
| -          | 21005            | HST   | 342      | 342      | 1        | 493                  | -          |
| 1938       | 1938 DUNHILL     | HST   | 344      | 354      | 2        | 487                  | 33.6       |
| 1917       | 1917 INTACT      | HST   | 441      | 471      | 2        | 483                  | 39.3       |
| 20031      | 20031            | HST   | 424      | 424      | 1        | 473                  | 30.2       |
| ZNDP210003 | 21003            | HST   | 388      | 388      | 1        | 471                  | 38.1       |
| ZNDP190040 | 1940 DUNHILL     | HST   | 409      | 391      | 2        | 461                  | 42.5       |
| 1904       | 1904 IKEA        | HST   | 374      | 380      | 3        | 456                  | 36.9       |
| 21038      | 21038 LIWAY SIL  | HST   | -        | -        | -        | 453                  | 25.7       |
| ZNDP190019 | 1919             | HST   | 763      | 763      | 1        | 446                  | 39.4       |
| -          | 22002 LIWAY      | HST   | -        | -        | -        | 444                  | 38         |
| 1835       | 1835             | HST   | 445      | 422      | 3        | 436                  | -          |
| ZNDP200021 | 20021            | HST   | 593      | 593      | 1        | 433                  | 36.7       |
| 22011      | 22011 MIGNON     | HST   | -        | -        | -        | 418                  | 29.9       |
| 20015      | 20015            | HST   | 339      | 354      | 2        | 417                  | 38.6       |
| 22009      | 22009 LIWAY SIL  | HST   | -        | -        | -        | 415                  | -          |
| -          | 22005 MOVER      | HST   | -        | -        | -        | 408                  | 22         |
| -          | 1945 DUNHILL     | HST   | 765      | 765      | 1        | 406                  | 14         |
| -          | 22007 MOVER      | HST   | -        | -        | -        | 400                  | 35.8       |