

FERTILITY!! “The Ultimate Management Test”



Science Driven.

Fertility

FIRST

Results Focused.



Euroopa Maaelu Arengu
Põllumajandusfond:
Euroopa investeringud
maapiirkondadesse

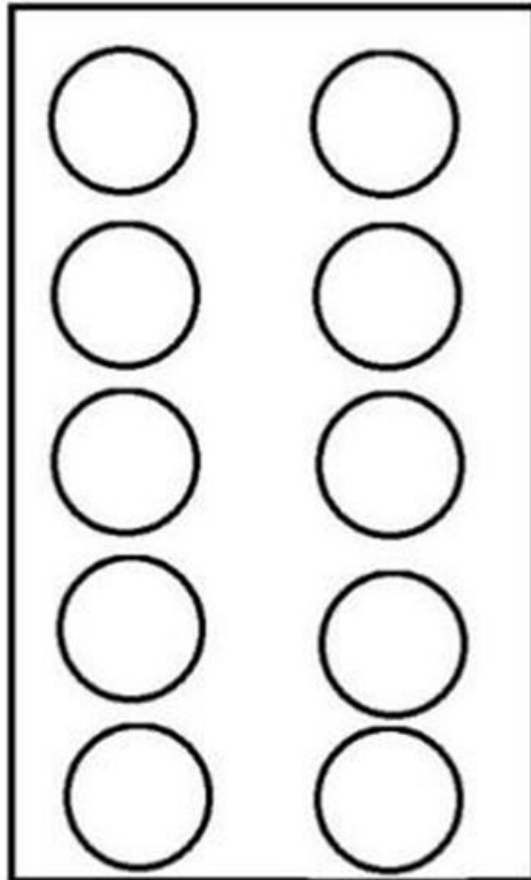
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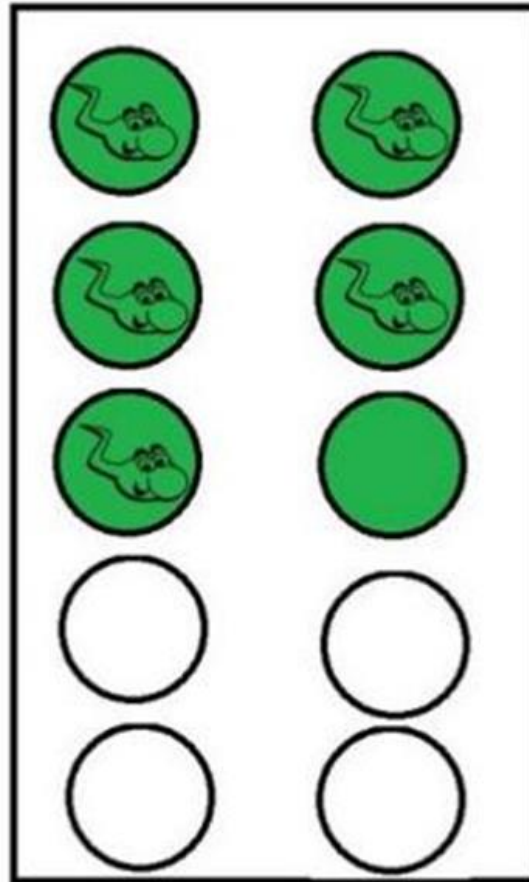
Fertility can be affected by many different Management factors. Get one factor wrong and you will “pay”.



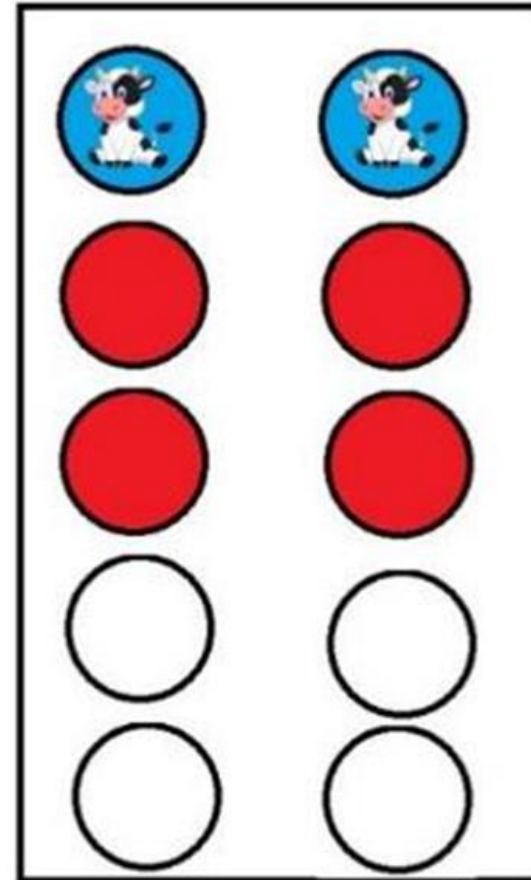
Pregnancy Rate



In 21 days you have 10 cows
Eligible to breed



You spotted 6 on heat
(heat detection=60% (6/10))
You Inseminate 5
Insemination Rate=50% (5/10)

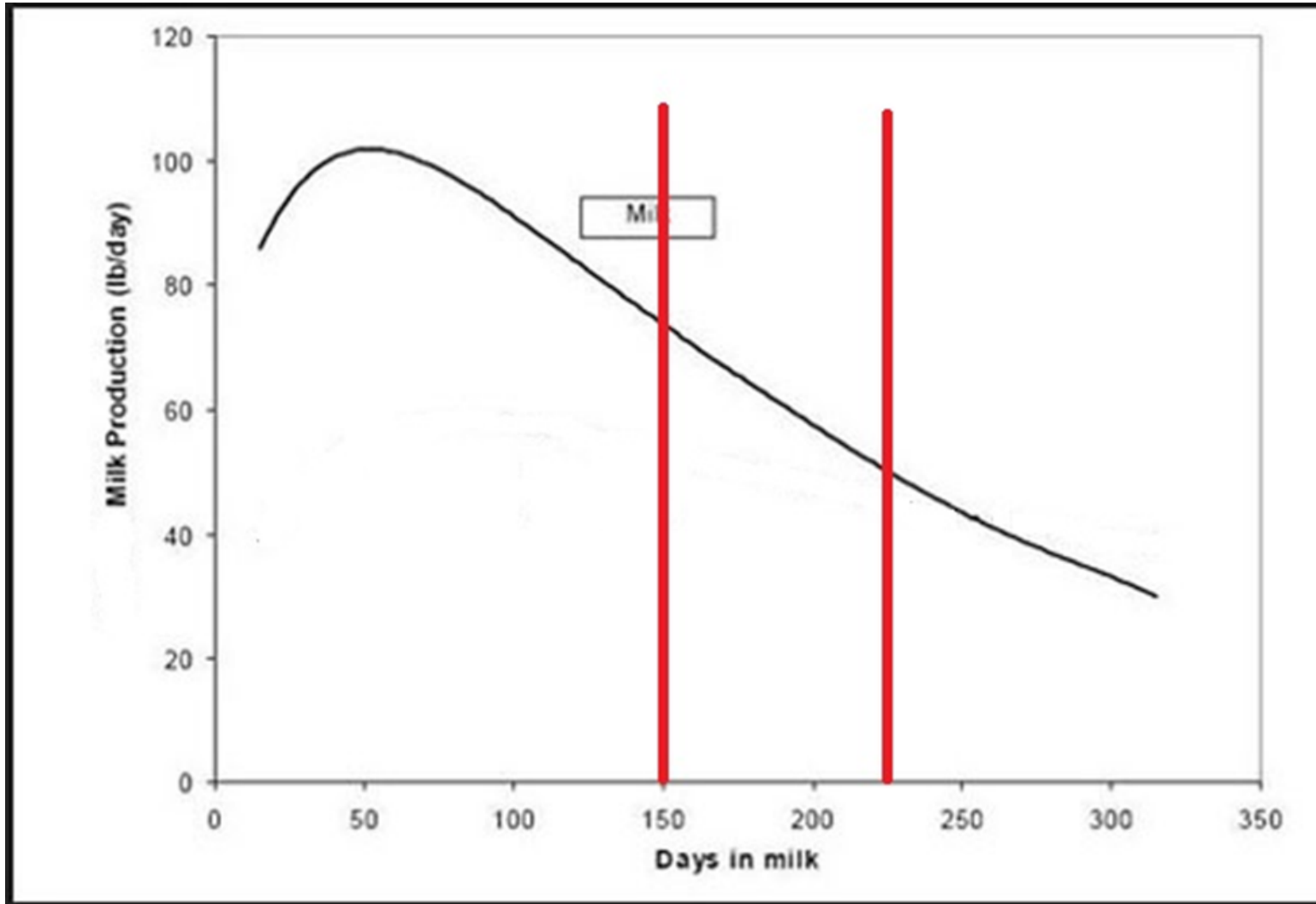


Two cows fall pregnant:
Conception Rate=2/5= 40%.
Pregnancy Rate=
AI Rate x Concep. Rate= 20%

Pregnancy Rate

| Period | | Heat Detection | | | Pregnancy Rate | | |
|--------------------------------|----------|----------------|-------------|------------|----------------|------------|------------|
| Start Date | End Date | Eligible | Detected | HDR % | Eligible | Pregnant | PR% |
| <i>11/12/2020 - 31/12/2020</i> | | 125 | 75 | 60% | 139 | 25 | 18% |
| <i>01/01/2021 - 21/01/2021</i> | | 135 | 101 | 75% | 147 | 29 | 20% |
| <i>22/01/2021 - 11/02/2021</i> | | 136 | 79 | 58% | 148 | 12 | 8% |
| <i>12/02/2021 - 04/03/2021</i> | | 160 | 108 | 68% | 172 | 25 | 15% |
| <i>05/03/2021 - 25/03/2021</i> | | 174 | 123 | 71% | 185 | 39 | 21% |
| <i>26/03/2021 - 15/04/2021</i> | | 171 | 124 | 73% | 182 | 48 | 26% |
| <i>16/04/2021 - 06/05/2021</i> | | 160 | 114 | 71% | 166 | 38 | 23% |
| <i>07/05/2021 - 27/05/2021</i> | | 165 | 137 | 83% | 170 | 41 | 24% |
| <i>28/05/2021 - 17/06/2021</i> | | 152 | 121 | 80% | 155 | 38 | 25% |
| <i>18/06/2021 - 08/07/2021</i> | | 135 | 108 | 80% | 138 | 35 | 25% |
| <i>09/07/2021 - 29/07/2021</i> | | 149 | 115 | 77% | 150 | 23 | 15% |
| | | 1662 | 1205 | 73% | 1752 | 353 | 20% |

Average Days in Milk



The Lower we can get our “Average Days in Milk” the more on average we produce per cow per day.

10 Days = 1 Litre



Fertility Summary

| Description | Value | Percentage% |
|--------------------------------|-------|-------------|
| <i>Total # Cows</i> | 1208 | 100% |
| <i>Total # Heifers</i> | 827 | 68% |
| <i>Currently in Milk</i> | 1005 | 83% |
| <i>Average Days In Milk</i> | 151 | |
| <i>Average ICP</i> | 384.0 | |
| <i>Average Days Open</i> | 104.0 | |
| <i>% Cows Pregnant</i> | 53.6% | |
| <i>Cow Pregnancy Rate</i> | 23.0% | |
| <i>Cow Heat detection Rate</i> | 50.0% | |
| <i>VWP</i> | 50 | |

| Description | Value | Percentage% |
|--------------------------------|-------|-------------|
| <i>Total # Cows</i> | 1358 | 100% |
| <i>Total # Heifers</i> | 815 | 60% |
| <i>Currently in Milk</i> | 1190 | 88% |
| <i>Average Days In Milk</i> | 191 | |
| <i>Average ICP</i> | 409.3 | |
| <i>Average Days Open</i> | 129.3 | |
| <i>% Cows Pregnant</i> | 36.5% | |
| <i>Cow Pregnancy Rate</i> | 17.0% | |
| <i>Cow Heat detection Rate</i> | 67.0% | |
| <i>VWP</i> | 45 | |

**1 Open day can =
\$4**



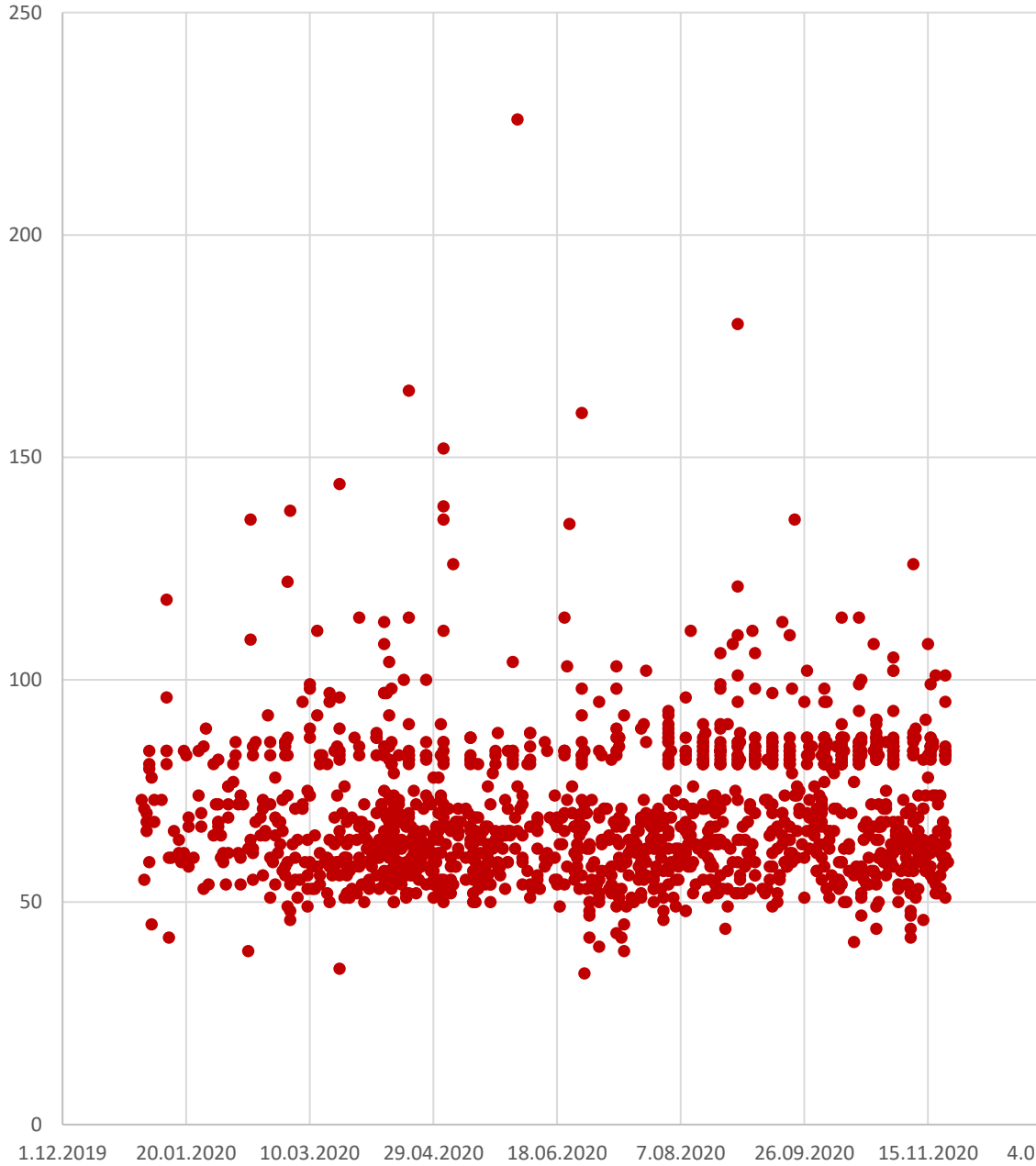


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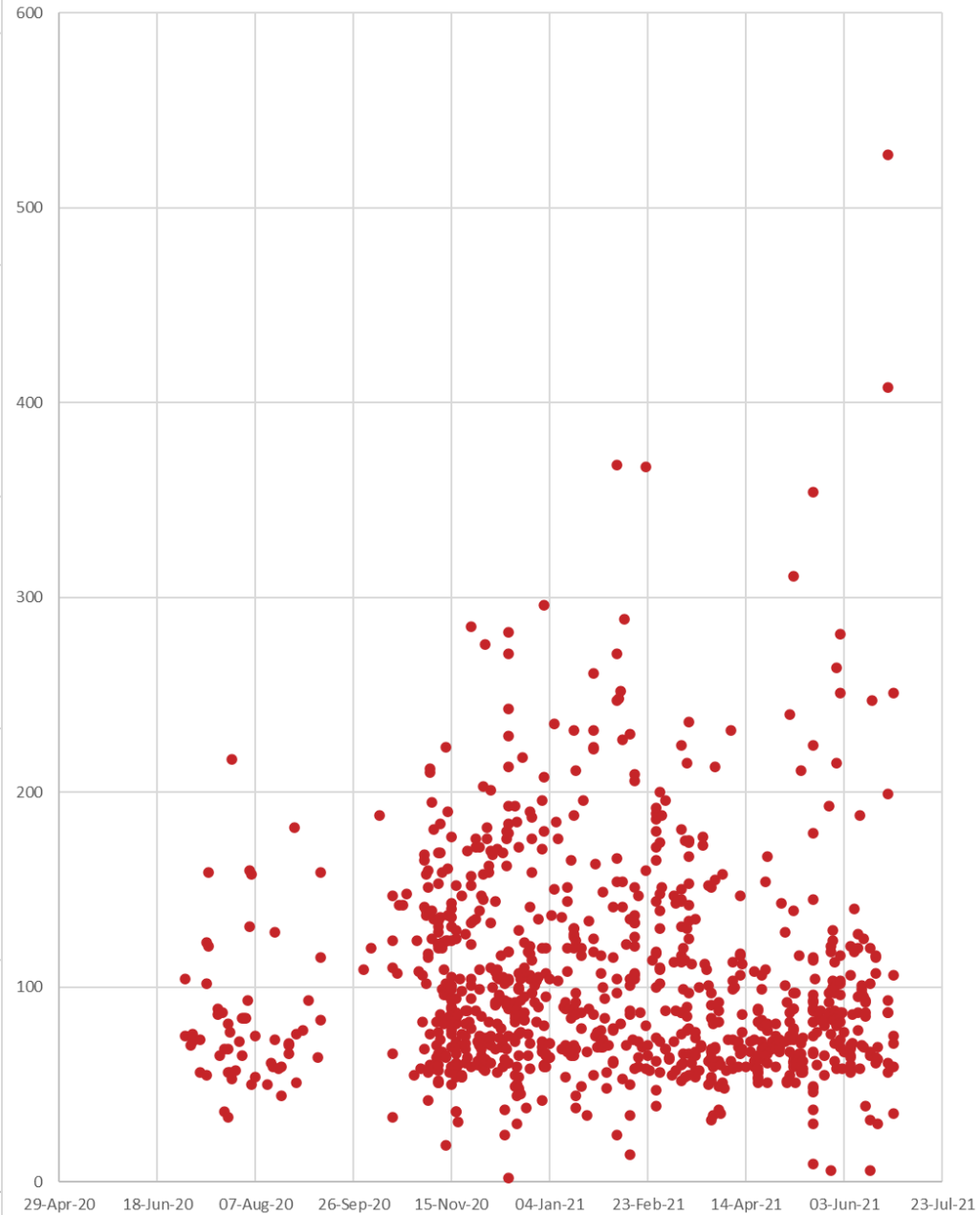
Days To 1st AI


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Date of 1st AI and Days to 1st AI



Date of and Days to 1st AI



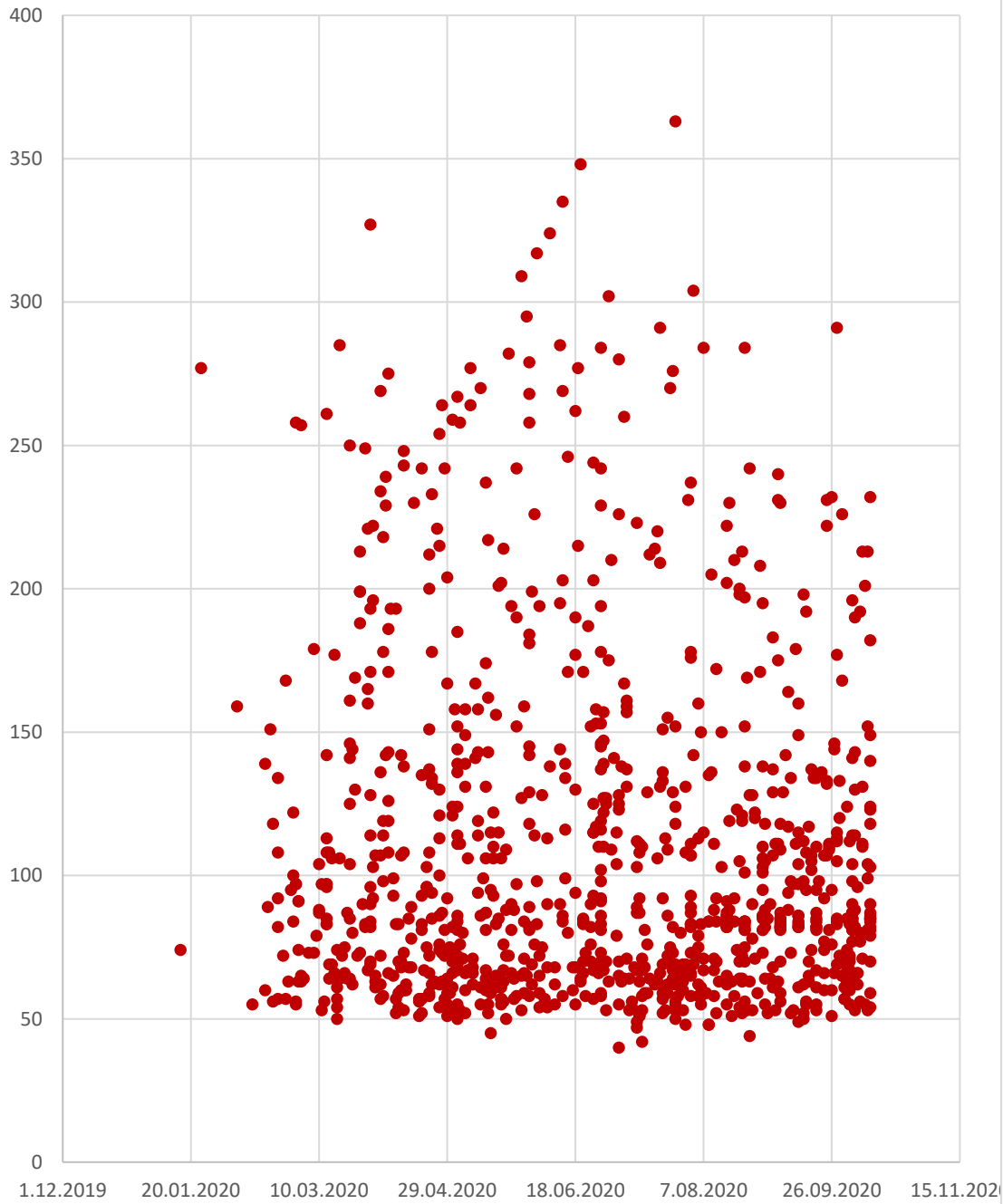


**Semex
Solutions**

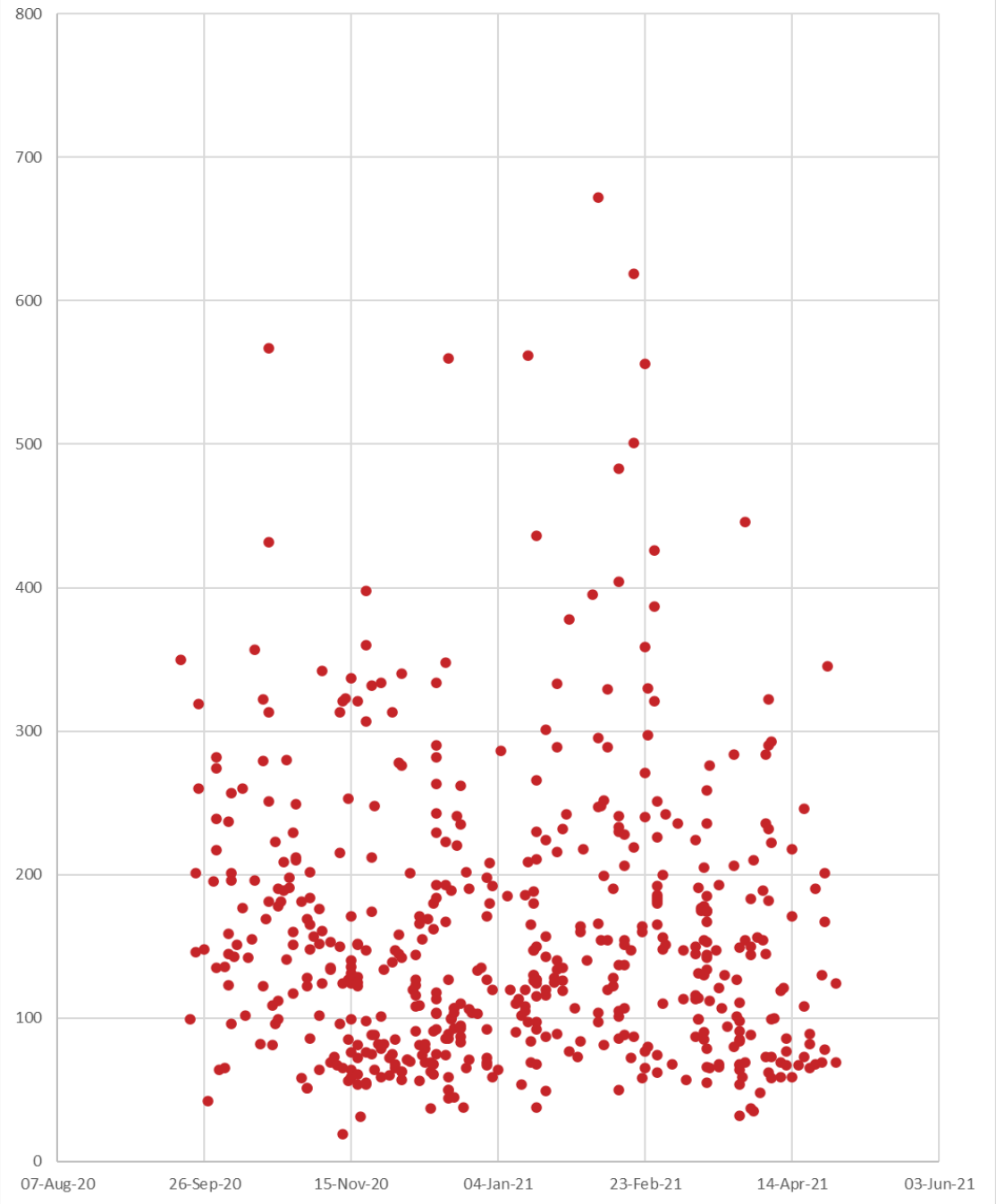
Days Open Over Time


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Days Open at Date of Conception



Days Open at Date of Conception



Straws in Relation to Pregnancies:

| Description | # Animals | % | #AI | Days Open |
|------------------------------|------------|-------------|------------|--------------|
| Total | 489 | 100% | 2.1 | 130.9 |
| <i>1 AI to get in calf</i> | 241 | 49% | 1 | 90.8 |
| <i>2 AI to get in calf</i> | 116 | 24% | 2 | 134.6 |
| <i>3 AI to get in calf</i> | 64 | 13% | 3 | 172.8 |
| <i>4 AI to get in calf</i> | 36 | 7% | 4 | 188.0 |
| <i>5 AI to get in calf</i> | 5 | 1% | 5 | 280.6 |
| <i>6 + AI to get in calf</i> | 27 | 6% | 7.1 | 269.5 |
| In Calf Over 200 DIM | 59 | 12% | 5.0 | 271.4 |
| In Calf Below 200 DIM | 430 | 88% | 1.7 | 111.6 |

| Description | # Animals | % | #AI | Days Open |
|------------------------------|------------|-------------|------------|--------------|
| Total | 426 | 100% | 4.2 | 176.1 |
| <i>1 AI to get in calf</i> | 123 | 29% | 1 | 81.8 |
| <i>2 AI to get in calf</i> | 70 | 16% | 2 | 99.8 |
| <i>3 AI to get in calf</i> | 56 | 13% | 3 | 144.4 |
| <i>4 AI to get in calf</i> | 36 | 8% | 4 | 151.0 |
| <i>5 AI to get in calf</i> | 23 | 5% | 5 | 218.3 |
| <i>6 + AI to get in calf</i> | 118 | 28% | 9.2 | 334.0 |
| In Calf Over 200 DIM | 142 | 33% | 8.2 | 326.4 |
| In Calf Below 200 DIM | 284 | 67% | 2.2 | 100.9 |

“Manage your herd on distribution rather than averages”



Mark Cows for Cull:

| Description | # Animals | % | #AI | DIM |
|-------------------------|------------|-------------|--------------|--------------|
| Total | 499 | 100% | 2.3 | 131.2 |
| 0 AI s | 300 | 60% | 0 | 41.3 |
| 1 AI s | 25 | 5% | 1 | 142.3 |
| 2 AI s | 17 | 3% | 2 | 166.4 |
| 3 AI s | 39 | 8% | 3 | 172.4 |
| 4 AI s | 29 | 6% | 4 | 191.4 |
| 5 AI s | 14 | 3% | 5 | 242.8 |
| 6 + AI s | 75 | 15% | 10.6 | 413.3 |
| 150 DIM NIC | 157 | 31% | 6.7 | 306.3 |
| % cows below VWP | 149 | | 15.3% | |

75 cows use 795 straws of semen and are not Pregnant

| Description | # Animals | % | #AI | DIM |
|-----------------------------|-----------|-------------|-------------|--------------|
| Total | 50 | 100% | 6.8 | 366.5 |
| 0 AI s | 9 | 18% | 0 | 146.9 |
| 1 AI s | 1 | 2% | 1 | 160.0 |
| 2 AI s | 4 | 8% | 2 | 254.3 |
| 3 AI s | 3 | 6% | 3 | 250.3 |
| 4 AI s | 4 | 8% | 4 | 313.3 |
| 5 AI s | 1 | 2% | 5 | 396.0 |
| 6 + AI s | 28 | 56% | 10.8 | 479.6 |
| % Cull of Total Herd | | | 5.1% | |

Lactation Fertility Performance:

| #Lactations | Total Herd | | Pregnant | |
|-----------------|-------------|-------------|-------------|------------|
| | # Cows | % of Herd | #AI | Days Open |
| 1 | 370 | 31% | 1.9 | 98.1 |
| 2 | 255 | 21% | 2.3 | 105.3 |
| 3 | 235 | 19% | 2.1 | 101.5 |
| 4+ | 348 | 29% | 2.4 | 112.8 |
| Averages | 1208 | 100% | 2.14 | 104 |

We always want our 1st Calvers to have the best fertility figures and fertility to regress gradually as cows get older



Heifer Mortalities Paint a Picture:

| Year Born | Estimated to have been born | Still Alive | Alive | Mortality |
|--------------------------------|-----------------------------|-------------|--------------|-------------|
| 2018 | 129 | 116 | 89.9% | 10.1% |
| 2019 | 155 | 139 | 89.7% | 10.3% |
| 2020 | 166 | 164 | 98.8% | 1.2% |
| 2021 | 70 | 69 | 98.6% | 1.4% |
| Average of last 3 years | 391 | 372 | 95.1% | 4.9% |

| Year Born | Estimated to have been born | Still Alive | Alive | Mortality |
|--------------------------------|-----------------------------|-------------|--------------|--------------|
| 2018 | 300 | 182 | 60.7% | 39.3% |
| 2019 | 245 | 201 | 82.0% | 18.0% |
| 2020 | 295 | 214 | 72.5% | 27.5% |
| 2021 | 178 | 152 | 85.4% | 14.6% |
| Average of last 3 years | 718 | 567 | 79.0% | 21.0% |

Farms with low mortalities often will have better fertility, better 1st lactation production and can save money on heifer rearing.



Heifer Fertility:

| Description | # Animals | % | Age @ Conc(M) | Calving down Age | #Ins |
|-------------------------------------|-----------|------|---------------|------------------|------|
| Total | 484 | 100% | 14.90 | 24.08 | 1.42 |
| 1 Insemination to Conceive | 350 | 72% | 14.45 | 23.63 | 1 |
| 2 Inseminations to Conceive | 89 | 18% | 15.72 | 24.90 | 2 |
| 3 Inseminations to Conceive | 29 | 6% | 16.38 | 25.56 | 3 |
| 4+ Inseminations to Conceive | 16 | 3% | 17.50 | 26.68 | 4.56 |

| Description | # Animals | % | Age @ Conc(M) | Calving down Age | #Ins |
|-------------------------------------|-----------|------|---------------|------------------|------|
| Total | 92 | 100% | 21.19 | 30.37 | 1.75 |
| 1 Insemination to Conceive | 42 | 46% | 20.66 | 29.84 | 1 |
| 2 Inseminations to Conceive | 33 | 36% | 21.17 | 30.35 | 2 |
| 3 Inseminations to Conceive | 16 | 17% | 22.34 | 31.52 | 3 |
| 4+ Inseminations to Conceive | 1 | 1% | 25.79 | 34.97 | 5.00 |

We would like to see age at 1st calving as close to 24 months as possible but ensure heifers are at 85% of mature cow weight when calving.



Monitor Bull Fertility:

| Period | | 30-Dec-20 | to | 30-Apr-21 |
|-------------------|-----------|------------|---------|-----------|
| Bull Name | # Heifers | Heifers CR | # Cows | Cows CR |
| <i>Moonbeam</i> | | | 125 | 56% |
| <i>Butterfly</i> | | | 300(58) | 48% |
| <i>Haroldo</i> | | | 98(15) | 43% |
| <i>Bloomfield</i> | | | 567(90) | 42% |
| <i>Mookie</i> | | | 518(56) | 40% |
| <i>Lottomax</i> | | | 186 | 38% |
| <i>Bouncer</i> | | | 90 | 30% |
| <i>Petrone</i> | | | 54 | 28% |

| Period | | 5-May-21 | to | 16-Jul-21 |
|------------------|-----------|------------|--------|-----------|
| Bull | # Heifers | Heifers CR | # Cows | Cows CR |
| <i>DEFINITE</i> | | | 136 | 31% |
| <i>BULL</i> | | | 85 | 35% |
| <i>PULLMAN</i> | | | 285 | 24% |
| <i>BUTTERFLY</i> | 102 | 56% | 210 | 16% |
| <i>LOGO</i> | 35 | 46% | 40 | 15% |



Make sure bulls are compared over the same period, I like 4 months.

Inseminator Fertility:

| Period | | 5-May-21 | to | 16-Jul-21 |
|------------------|-----------|------------|--------|-----------|
| Inseminator Name | # Heifers | Heifers CR | # Cows | Cows CR |
| <i>ZAMO</i> | 195 | 44% | 416 | 15% |
| <i>JOSEPH</i> | 60 | 63% | 522 | 32% |
| <i>ZWELITINI</i> | | | 45 | 18% |
| <i>MLU</i> | | | 39 | 18% |

| Period | | 6-Nov-20 | to | 6-Mar-21 |
|------------------|-----------|------------|--------|----------|
| Inseminator Name | # Heifers | Heifers CR | # Cows | Cows CR |
| <i>Loyiso</i> | | | 38 | 42% |
| <i>Madondo</i> | | | 140 | 43% |
| <i>Wiseman</i> | | | 102 | 41% |

| Period | | 15-May-21 | to | 15-Sep-21 |
|----------------------|-----------|------------|--------|-----------|
| Inseminator Name | # Heifers | Heifers CR | # Cows | Cows CR |
| <i>Loyiso</i> | | | 45 | 47% |
| <i>Derek Cameron</i> | | | 27 | 33% |
| <i>Madondo</i> | | | 219 | 41% |
| <i>Wiseman</i> | | | 196 | 20% |





Science Driven.

Fertility
FIRST

Results Focused.

**WE'RE PUTTING
FERTILITY FIRST**

From the barn, to the lab, to the tank and to
the farm gate, we are
Science Driven and Results Focused.



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Thank you



HanHopman