

**vestjysk**  
- med vilje og til gavn

Ida Ringgaard, vestjysk

**Jersey cows are not to be managed as mini HF**

# Ida Ringgaard

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- Cand. Agro (M. Sc.). Copenhagen University (1994)
- Married to a HF farmer – 160 cows
- Director of consulting, vestjysk
- 30 advisors
- Environment, plants, economics and dairy management
- I love my work 😊
- I have the most passionate farmers in DK



# The potential in a jersey cow

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- High feed efficiency
- Kg ECM/kg dry matter
- Taking care of the baby-calves
- Working with the heifers – faster growing
- Low calving age
- High amount of silage
- Less concentrate
- Only good quality of concentrate
- And then the money come... 😊



# A jersey – is something special

**It's not a Holstein**

You can't just give her 10 % less of a HF ration



**It's not a pig**

Feed your jersey with pellets – and she will die



# High efficiency = kg ECM/kg DM

## Example

- 8,7 kg DM corn silage
- 5,1 kg DM grass/hay
- 2,3 kg DM barley/soda grain
- 4,8 kg DM soja, rapsseed cake, maize60  
protected fat and Easylin

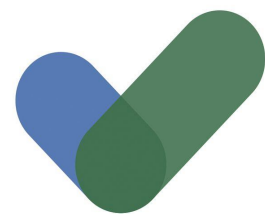
In total 21 kg DM

61,7% silage (68 % "home-made")



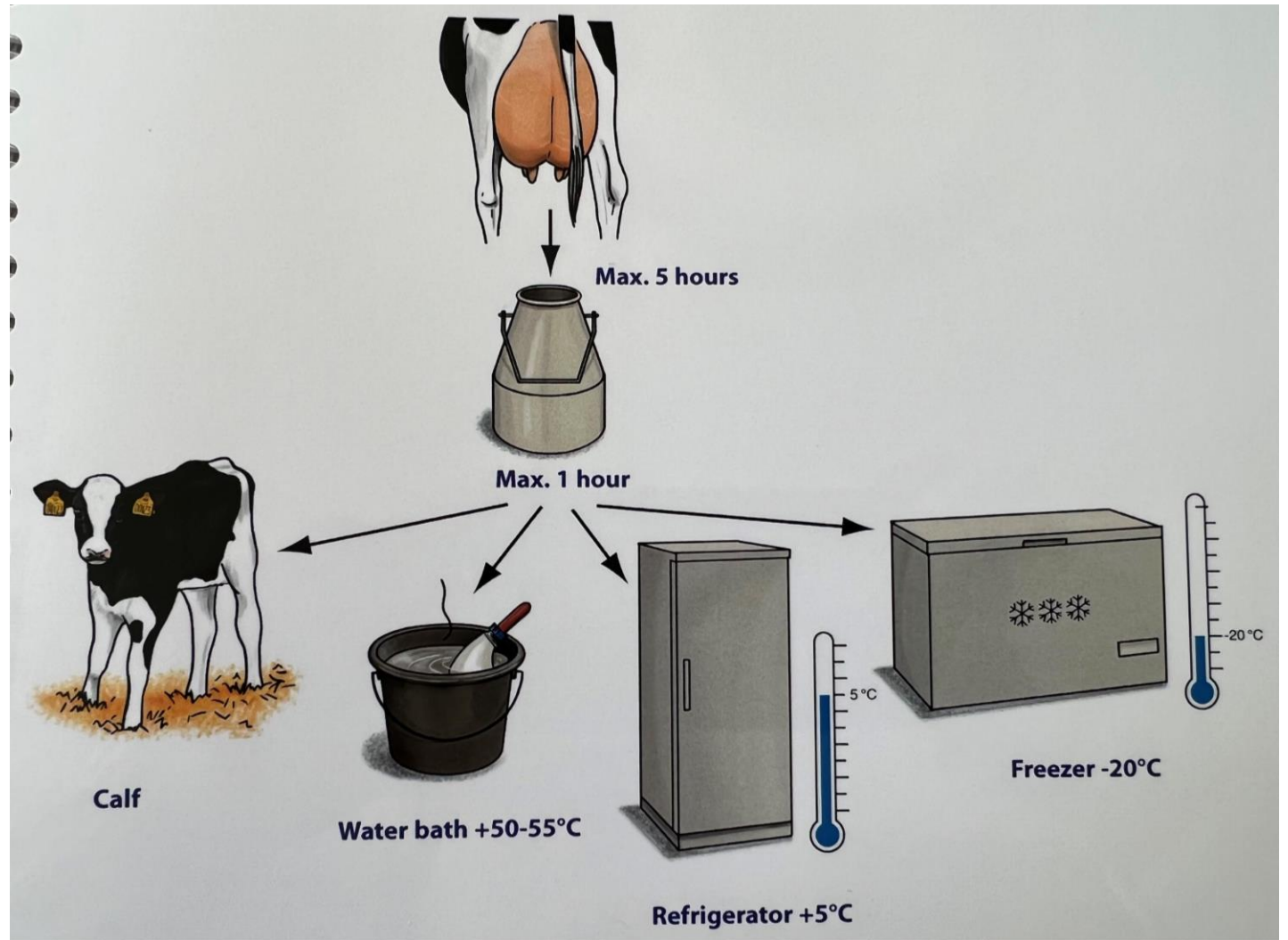
# The baby-calf

- Colostrum – 3 L (or more) brix >22
- Dip the navel (10 % alcohol of iodine)
- Dry the baby (the cow lick the calf, dry with towel or in a drying box)
- Place the calf on clean, dry bedding



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# Colostrum

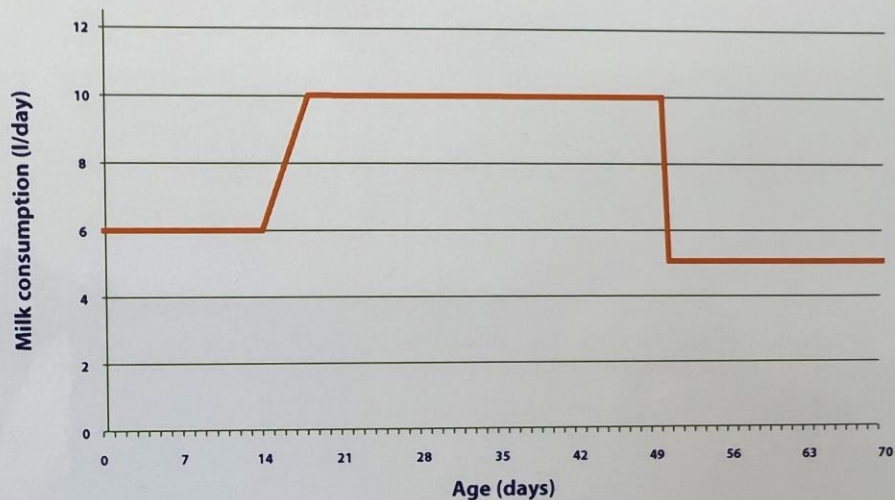


# Milk feeding

6-10 l/day

## High milk feeding

- Single pen (max. 3 weeks): feed a minimum of 6 l/calf/day.
- Group pen: feed a minimum of approx. 10 l/calf/day to double the weight at weaning depending on the milk source/quality.
- 2 feedings/day.



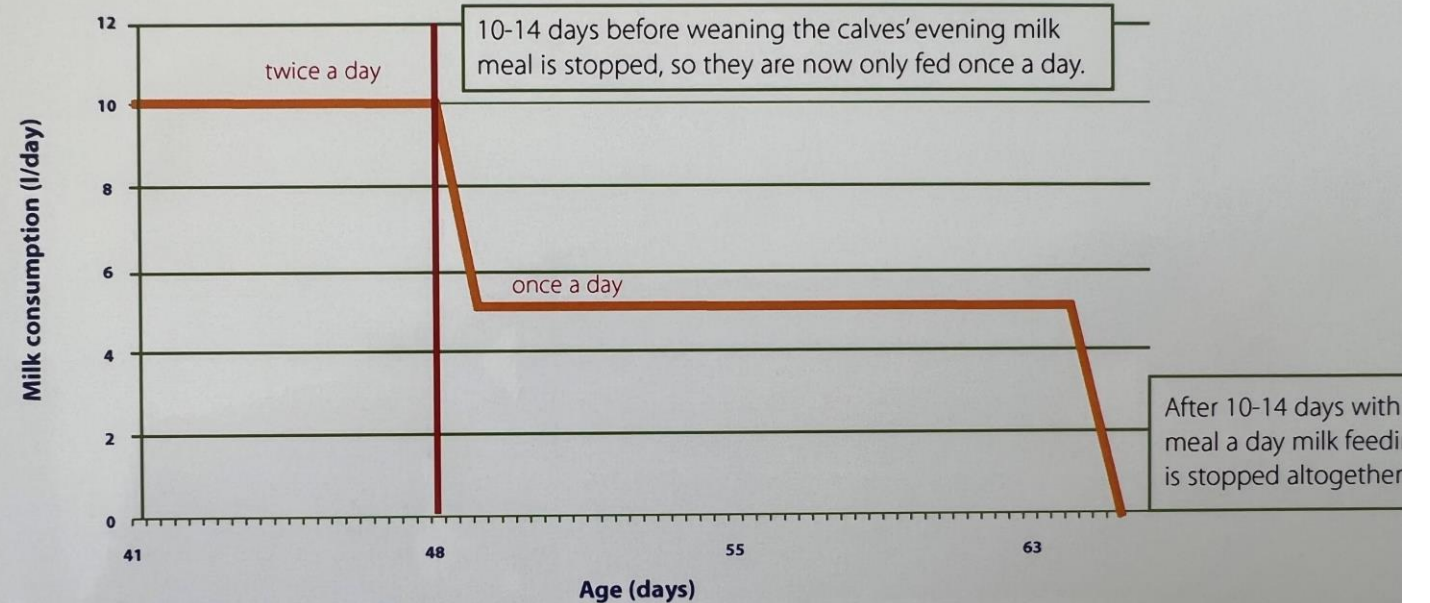
- Calves fed high quantities of milk have a growth rate of 960-1300 g/day depending on the temperature in the surroundings.
- The calves are better protected and therefore healthier.
- They will have a 10% higher milk yield in their first lactation.
- At weaning after 60 days, a calf fed a high milk allowance will typically weigh 10 kg more than a calf fed a traditional/restricted milk allowance.





# Weaning

## Weaning with accelerated milk feeding



Weaning with full quantity of milk once a day rather than half quantity twice a day is only considered for calves on a high-milk diet. However, in this case it had a very positive effect on the calf's health and growth in the period during and after the milk-feeding period.

# The young calf – accelerated growing

- Muesli the first weeks – no pellets (need structure)
- Introduce silage early
- Diarrhoea
- Lung disease
- Fast growing:
  - 900-1100 g/day

## Checklist: Calf muesli

Don't feed calves the cows' ration! Calf muesli should be a fresh mixture, high in fibre, at least 22% protein and moist, as calves produce little saliva. Calves eating muesli are easier to wean gradually without suffering deprivation. Give the starter from day 1. 1-2 weeks before weaning the feeding plan for young heifers should be introduced.



Purchased muesli. The mixture must be appealing and tasty, so that the calves will want to nibble the feed.



A homemade muesli should include hay, silage; possibly alfalfa, barley, molasses, soya protein; possibly maize, minerals and vitamins.



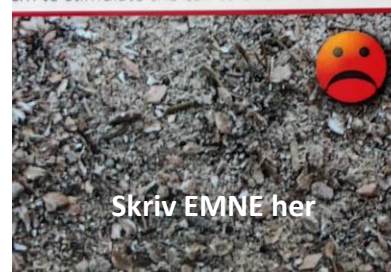
A concrete mixer is suitable for making homemade calf muesli.



Muesli should have some structure that is achieved with a particle size of at least 1-1.5 cm to stimulate the calf to chew the cud.



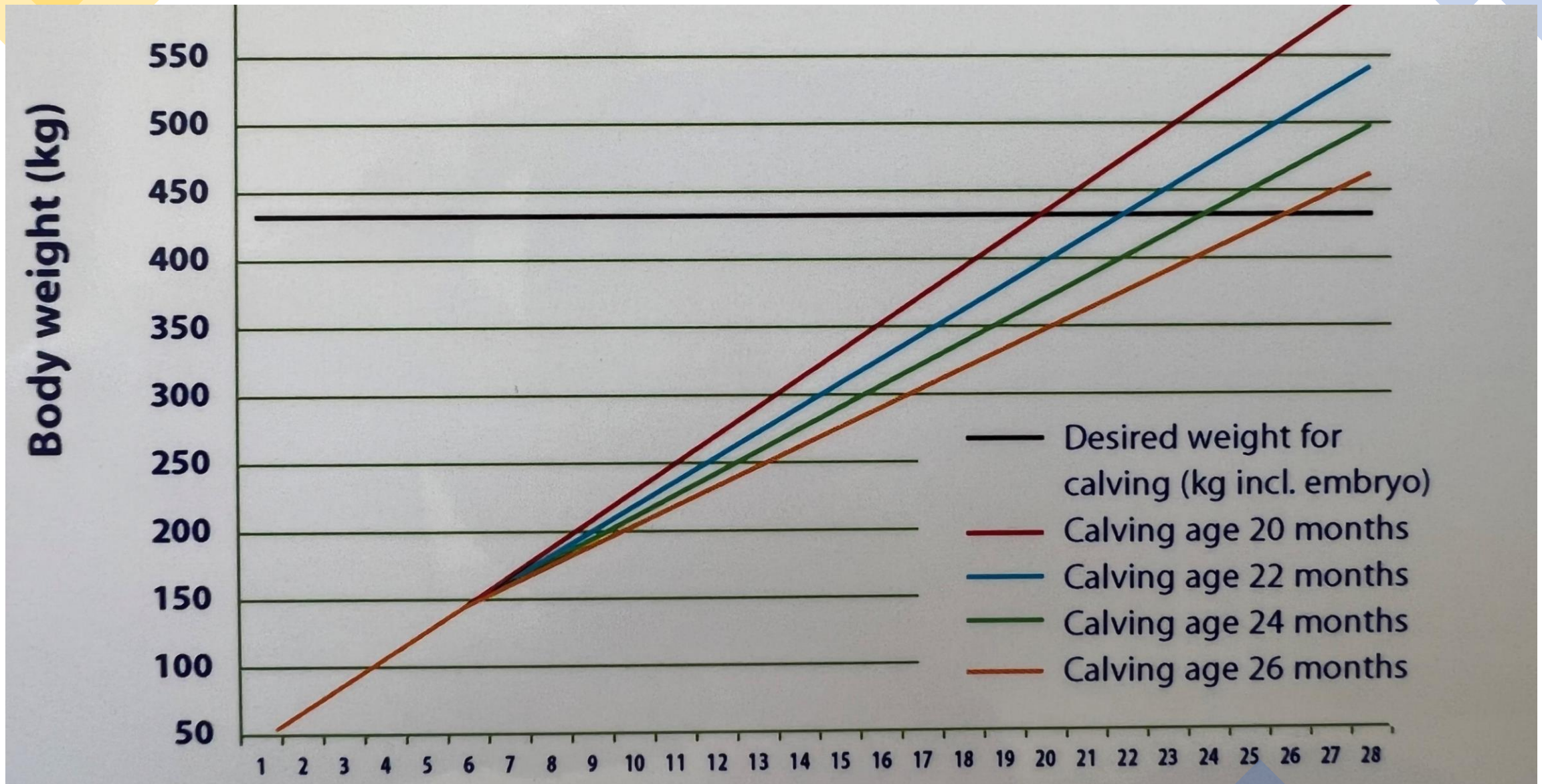
Maize and grain must not be whole but should be processed, so that the calf can utilise the nutrients.



Skriv EMNE her



# Calving age





# Clover-grass silage – both protein and sugar (4-5 kg dm)

- White clover – taste good, high protein – but it need water (no red clover to a Jersey)
- Grass – rye grass – not growing to fast (more days to harvest)
- Crude protein between 14-18 %, sugar 10-15 % - dry matter 30-35 %
- Structure – remember a jersey cow are still a ruminant
- The 1.-3. cut to the cows – the 4. (or 5.) cut to the heifers
- Do dry cows need grass?

# Corn silage – both starch and fibers (7-9 kg dm)

- Dry matter 30-32 %
- Length 10-20 mm – rumination – don't forget it
- NDF – quality of the fibers – it give a higher fat %



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Skriv EMNE her

# TMR system (total mixed ration)

- Mix like you make a cake (water, molasse, dry ingredients, silage)
- If a Jersey can select – **she will select**
- Dry matter 40-42 %
- And remember the structure!

A Jersey should ruminate

- Rumination >50 times between swallows
- Check minutes to eating and minutes to chewing



# Adelgaard – feed plan (september 2023)

- Why do Ida like those components?

- Water
- Molasse
- Barley
- Soda grain
- Rapeseed cake
- Non GM Soja
- Maize60% protein
- Easyline (linseed)
- Calcium
- Mineral (design to the farm)
- Protected fat
- Hay or straw (only structure)
- 1 +2 cut clover grass
- Corn silage

## Mælkeproduktion

| Parameter          | Enhed     | Malkende |
|--------------------|-----------|----------|
| Mælk mejeri        | Liter/dag | 7.764    |
| Mælk hjemmeforbrug | Liter/dag | 35       |
| Fedtpct.           | Pct.      | 5,74     |
| Proteinpct.        | Pct.      | 4,15     |
| Mælkepris          | Kr pr. Kg | 4,11     |

## Fodertildeling

| Antal dyr                          |        |            | Malkende        |                  |
|------------------------------------|--------|------------|-----------------|------------------|
|                                    |        |            | 269             |                  |
| Fodermiddel                        | Øre/kg | Enhed      | Tildelt dyr/dag | Tildelt i alt kg |
| Vårbyg                             | 189,0  | Kg TS (kg) | 1,2 (1,5)       | 395              |
| Majsgluten 60%                     | 730,0  | Kg TS (kg) | 0,2 (0,2)       | 66               |
| Rug, NaOH ludet, 75% TS            | 193,0  | Kg TS (kg) | 1,1 (1,5)       | 395              |
| Rapskagefoder, 10,5% fedt, DK alnr | 259,0  | Kg TS (kg) | 2,2 (2,5)       | 680              |
| Non-GM HP Sojaskråfoder, afskalle  | 460,0  | Kg TS (kg) | 2,1 (2,4)       | 644              |
| Majs 21 S3 bag                     | 34,9   | Kg TS (kg) | 8,7 (22,3)      | 5.990            |
| Vårbyghalm                         | 50,0   | Kg TS (kg) | 0,3 (0,4)       | 110              |
| Græshø, wrap                       | 58,7   | Kg TS (kg) | 0,1 (0,1)       | 25               |
| 5904 1+2 sl. 23 silo 6             | 46,5   | Kg TS (kg) | 5,1 (15,2)      | 4.082            |
| Rørmelasse                         | 141,0  | Kg TS (kg) | 0,3 (0,5)       | 129              |
| Kridt                              | 110,0  | Kg TS (kg) | 0,29 (0,29)     | 79               |
| Magnesiumoxyd                      | 595,0  | Kg TS (kg) | 0,00 (0,00)     | 1                |
| Bergafat                           | 942,0  | Kg TS (kg) | 0,15 (0,15)     | 40               |
| Komix 319-363 27 kg 283 g 3 sæk    | 493,0  | Kg TS (kg) | 0,25 (0,25)     | 68               |
| Easylin 48 Protect                 | 968,0  | Kg TS (kg) | 0,4 (0,4)       | 106              |
| Total                              |        | Kg TS (kg) | 22,6 (47,6)     | 12.812           |

# Adelgaard Jersey – september 2023

## Rationsparametre

| Rationsparametre     | Enhed       | Malkende |         |       |
|----------------------|-------------|----------|---------|-------|
|                      |             | Min.     | Tildelt | Maks. |
| Tørstofprocent       | %           |          | 47,4    |       |
| Foderoptagelse       | kg TS/dag   |          | 22,6    |       |
| Grovfoderandel       | % af TS     |          | 63,2    |       |
| Krafftoder           | kg TS/dag   |          | 8,3     |       |
| Energioptagelse      | MJ/dag      | 150      | 154     |       |
| Energi               | MJ/kg TS    |          | 6,81    |       |
| Energibalance        | %           | 100,0    | 102,3 * | 101,0 |
| Råprotein            | g/kg TS     |          | 172 *   | 170   |
| AAT til mælk         | g/MJ        | 15,00    | 16,18   | 16,50 |
| AAT                  | g/kg TS     |          | 110     |       |
| PBV                  | g/kg TS     | 5        | 9       | 15    |
| Fedtsyrer            | g/kg TS     | 20       | 34      | 45    |
| NDF                  | g/kg TS     |          | 293     |       |
| Stivelse             | g/kg TS     | 0        | 201     |       |
| Sukker               | g/kg TS     |          | 54      |       |
| Vombelastning        | Ingen enhed |          | 0,49    | 0,60  |
| Fylde i alt          | FV          | 7,5      | 8,5 *   | 7,7   |
| Tyggetid             | min./kg TS  | 26       | 32      |       |
| Calcium              | g/kg TS     |          | 8,4     | 15,0  |
| Fosfor               | g/kg TS     |          | 3,8     | 7,0   |
| Magnesium            | g/kg TS     |          | 3,3     | 6,0   |
| Kalium               | g/kg TS     |          | 14,9    | 175,4 |
| Natrium              | g/kg TS     |          | 4,0     | 12,0  |
| Kation-anion balance | meq/kg TS   | 200      | 255     | 450   |

- 22,6 kg dry matter
- 8,3 kg dm in concentrate (37%)
- 154 MJ i average
- 17,2% crude protein
- 34 g fatty acid/kg dm
- 201 g starch/kg dm
- 54 g sugar/kg dm



# Efficiency control – Adelgaard september 2023

- 1,68 kg ECM/kg dm
- 37,9 kg ECM/milking cow
- Feed cost 47,54 DKK (6,38 euro)
- Milk minus feed cost: 75,20 DKK
- = 10,1 euro/cow/day



## Nøgletal

| Nøgletal                           | Enhed      | Malkende |        |       |
|------------------------------------|------------|----------|--------|-------|
|                                    |            | Min.     | Opnået | Maks. |
| Energiudnyttelse                   | %          |          | 97,8   |       |
| EKM pr. kg tørstof                 | kg/kg TS   |          | 1,68   |       |
| Dagsydelse pr. malkende ko, opnået | kg EKM/dg. |          | 37,9   |       |
| Dagsydelse pr. malkende ko, mål    | kg EKM/dg. |          | 34,7   |       |
| Mælkeindtægt pr. kg EKM            | kr./kg EKM |          | 3,24   |       |
| Foderomkostning pr. EKM            | kr./kg EKM |          | 1,25   |       |
| Kraftfoderomkostning pr. kg EKM    | kr./kg EKM |          | 0,86   |       |
| Grovfoderomkostning pr. kg EKM     | kr./kg EKM |          | 0,40   |       |
| Mælk minus foder pr. kg EKM        | kr./kg EKM |          | 1,98   |       |
| Mælkeindtægt pr. ko                | kr./dag    |          | 122,73 |       |
| Foderomkostning pr. dyr            | kr./dag    |          | 47,54  |       |
| Mælk minus foder pr. ko            | kr./dag    |          | 75,20  |       |
| Grovfoderpris                      | øre/FEN    |          | 120    |       |
| Grovfoderpris, std. priser         | øre/FEN    |          | 128    |       |

- **How to get high de novo fatty acids in milk:**
  - A healthy rumen (TMR – no pellets – no automat)
  - Positive energy balance (no loose of weight)
  - Barley/wheat in the TMR
  - Sugar-level in the TMR (50-60 g/kg dm)

## Fedtsyre målinger

De novo fedtsyre målinger (g fedtsyrer / 100 g totale fedtsyrer) på kontroldato (5344)

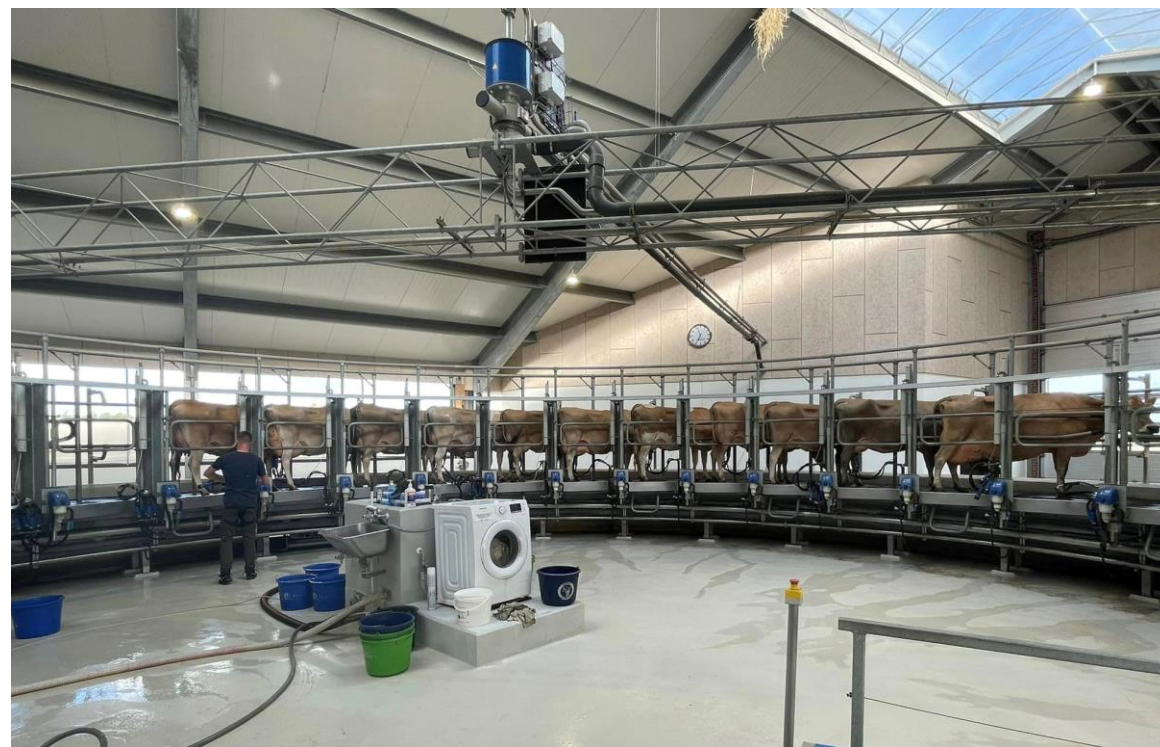
|                                      | 5/7       | 9/8       | 6/9       |
|--------------------------------------|-----------|-----------|-----------|
| Gns. de novo, alle køer 120-250 dage | 28,9 (99) | 28,2 (93) | 28,5 (87) |
| - 1. kalvs 120-250 dage              | 28,7 (28) | 27,7 (20) | 28,0 (22) |
| - 2. kalvs 120-250 dage              | 28,8 (17) | 28,0 (19) | 28,0 (16) |
| - Øvrige kalvs 120-250 dage          | 29,0 (54) | 28,6 (54) | 28,8 (49) |



| Non-GM    | Non-GM    | Non-GM | Øko       | GM        |
|-----------|-----------|--------|-----------|-----------|
| Stor race | Stor race | Jersey | Stor race | Stor race |
| 12.000    | 10.500    | 10.000 | 10.500    | 12.000    |

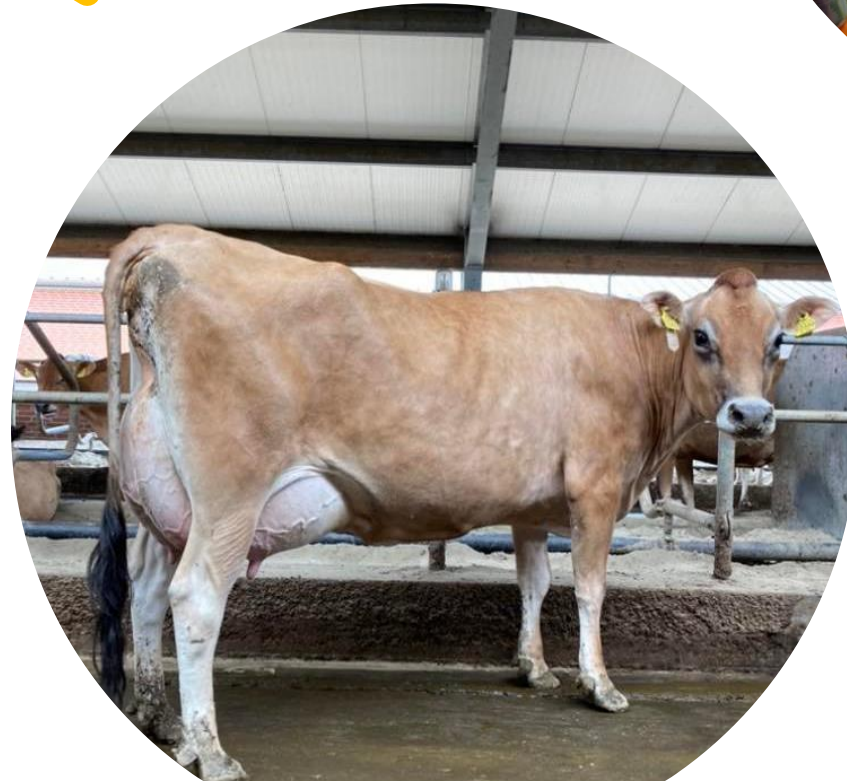
|  |            | 12.000 | 10.500 | 10.000 | 10.500 | 12.000 |
|--|------------|--------|--------|--------|--------|--------|
| Antal opdræt                                     | Stk./årsko | 0,80   | 0,80   | 0,80   | 0,80   | 0,80   |
| Kælvningsalder                                   | Mdr.       | 24,0   | 24,0   | 23,0   | 25,0   | 24,0   |
| Mælkeydelse, leveret                             | Kg EKM     | 12.000 | 10.500 | 10.000 | 10.500 | 12.000 |
| Fedtprocent                                      | %          | 3,90   | 4,05   | 5,85   | 4,00   | 3,90   |
| Proteinprocent                                   | %          | 3,30   | 3,40   | 4,05   | 3,30   | 3,30   |
| Mælkepris  | Kr./kg     | 3,58   | 3,70   | 4,87   | 4,09   | 3,47   |
| Mælkepris  | Kr./kg EKM | 3,66   | 3,68   | 3,82   | 4,12   | 3,54   |
| Mælkeindtægt i alt                               | Kr./årsko  | 43.899 | 38.612 | 38.173 | 43.255 | 42.527 |
| Tilvækstværdi i alt                              | Kr./årsko  | 3.517  | 3.517  | 1.695  | 3.737  | 3.517  |
| Udbytte i alt                                    | Kr./årsko  | 47.416 | 42.129 | 39.868 | 46.992 | 46.044 |
| Korn og tilskudsfoder total pr. årsko inkl. kvie | FEN        | 3512   | 2952   | 2802   | 3134   | 3405   |
| Korn og tilskudsfoder total pr. årsko inkl. kvie | %          | 38%    | 35%    | 38%    | 36%    | 37%    |
| Grovfoder total pr. årsko inkl. kvie             | FEN        | 5693   | 5559   | 4611   | 5581   | 5789   |
| Grovfoder total pr. årsko inkl. kvie             | %          | 62%    | 65%    | 62%    | 64%    | 63%    |
| Foder total pr. årsko inkl. kvie                 | FEN        | 9205   | 8512   | 7413   | 8715   | 9194   |
| Foder total pr. årsko pr. dag inkl. kvie         | FEN        | 25,2   | 23,3   | 20,3   | 23,9   | 25,2   |
| Korn og tilskudsfoder pr. årsko inkl. kvie       | Kr.        | 13.584 | 10.729 | 10.800 | 15.441 | 11.255 |
| Grovfoder total pr. årsko inkl. kvie             | Kr.        | 7.036  | 6.913  | 5.694  | 6.732  | 6.998  |
| Gns. FEN pris på grovfoder inkl. afgræs          | Kr.        | 1,24   | 1,24   | 1,23   | 1,21   | 1,21   |
| Mineraler total pr. årsko inkl. kvie             | Kr.        | 978    | 917    | 882    | 982    | 978    |
| Mineraler, hjælpestoffer, mælkepulver total      | Kr.        | 2.180  | 2.145  | 1.970  | 1.925  | 2.180  |
| Dyrlæge  | Kr.        | 675    | 675    | 675    | 675    | 675    |
| Avl  | Kr.        | 600    | 600    | 650    | 600    | 600    |
| Strøelse   | Kr.        | 500    | 500    | 500    | 500    | 500    |
| Diverse  | Kr.        | 1.100  | 1.100  | 1.100  | 1.100  | 1.100  |
| Dyrlæge og diverse vedr. husdyr total            | Kr.        | 2.875  | 2.875  | 2.925  | 2.875  | 2.875  |
| Stykomkostninger i alt                           | Kr.        | 25.675 | 22.662 | 21.389 | 26.973 | 23.307 |
| DB i alt   | Kr.        | 21.741 | 19.467 | 18.479 | 20.019 | 22.736 |
| DB pr. kg EKM                                    | Kr.        | 1,81   | 1,62   | 1,85   | 1,91   | 1,89   |

**Contribution margin 18.479 DKK/cow  
and 1,85 DKK/kg EKM  
(-result ex capacity cost)**



# Take home message

- Best quality of silage
- Max of silage
- Concentrate – good quality
- Baby calf – "take care"
- Young heifers – good health
- Calving age 21-23
- High milk production
- High efficiency



# Questions?

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**Christian Givskov Petersen**

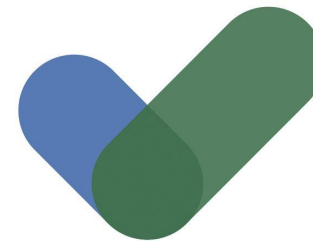
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