



The twin problem

November 17th 2022

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STØTTET AF

Mælkeafgiftsfonden

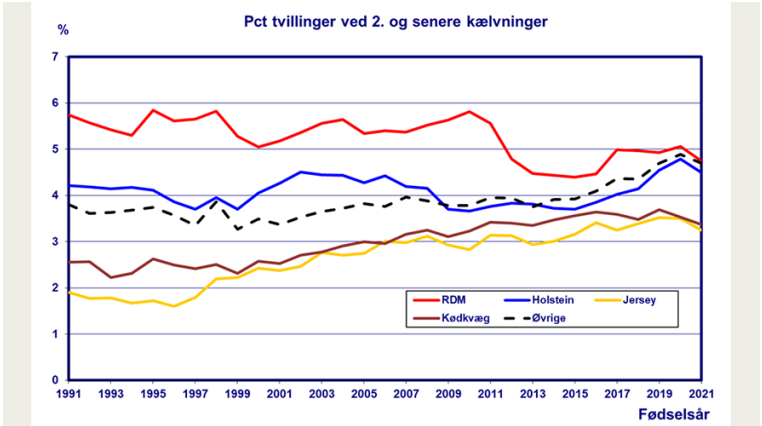
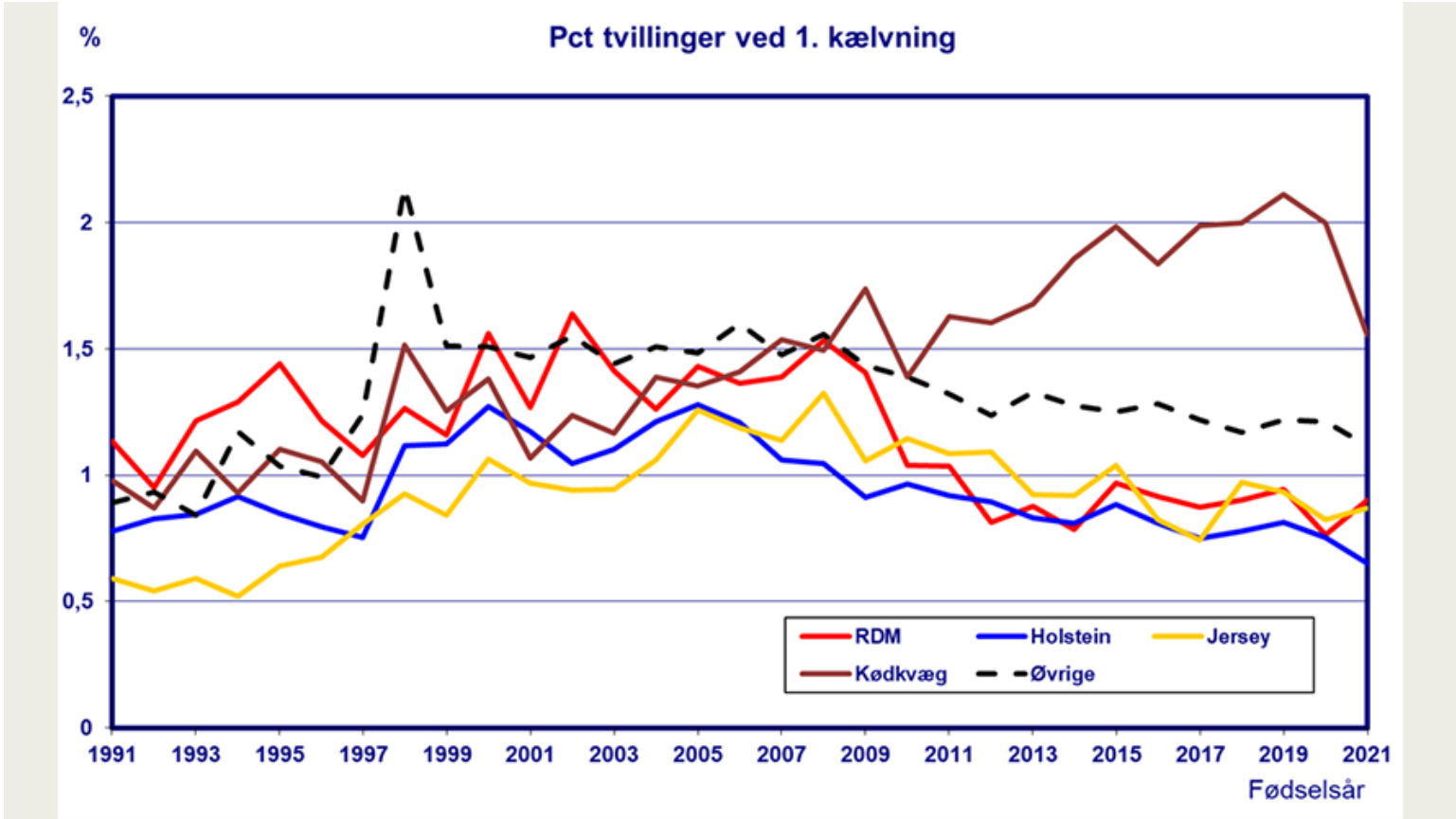
SEGES
INNOVATION

Brush up on knowledge and "black holes"

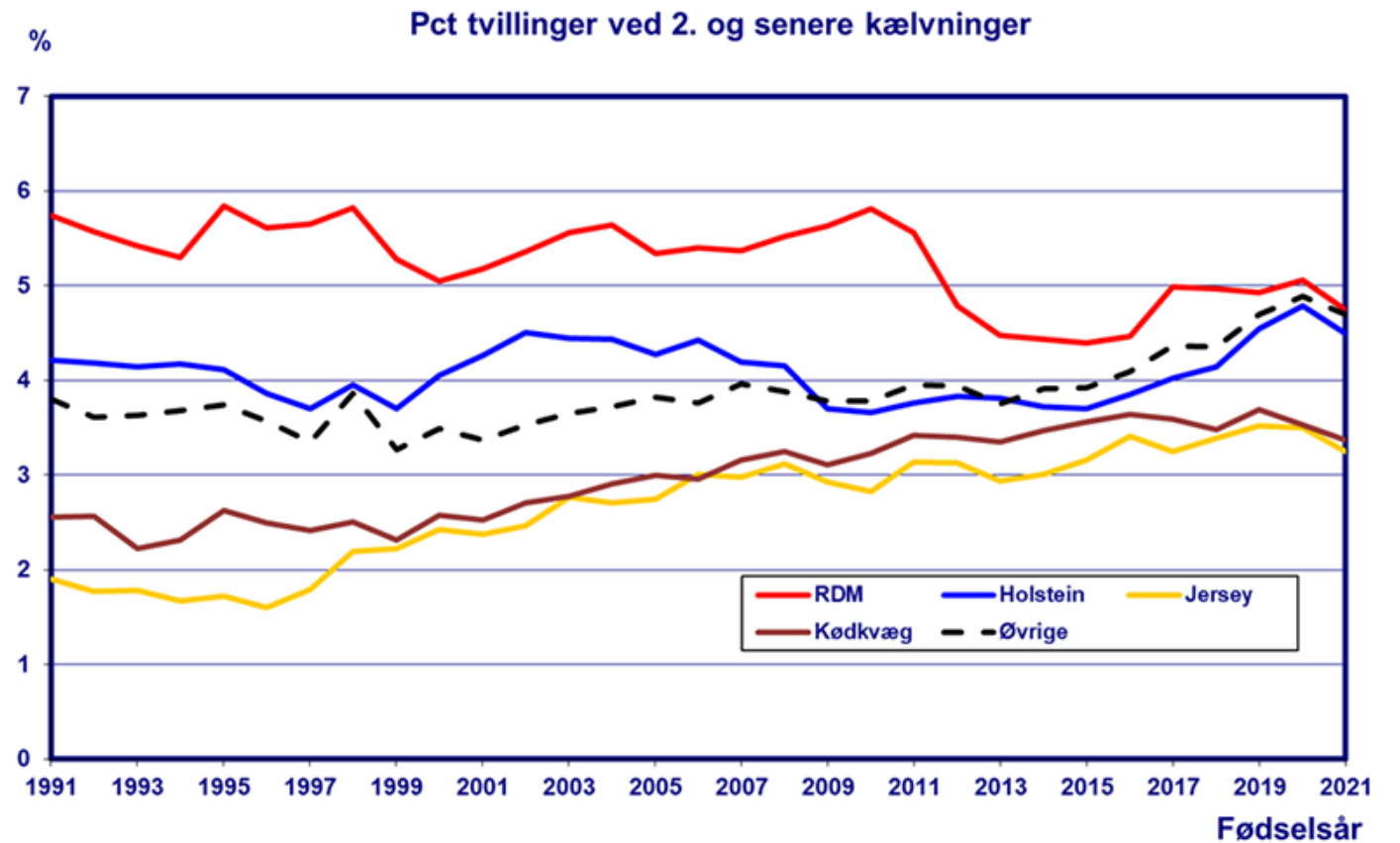
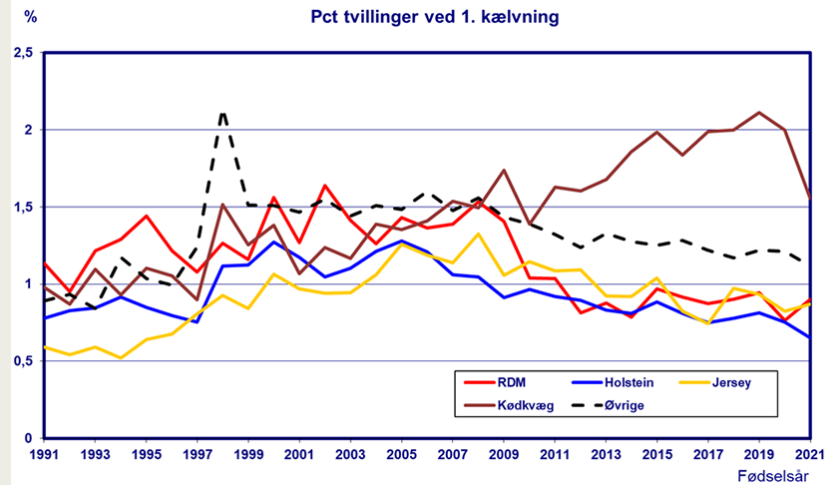
- Status in Denmark
- How come the cows have twins
- Desirable or undesirable?
- Management
- "Black holes"



Status in Denmark



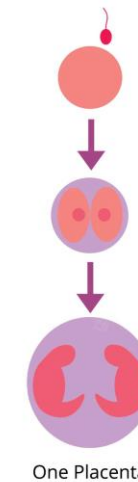
Status in Denmark



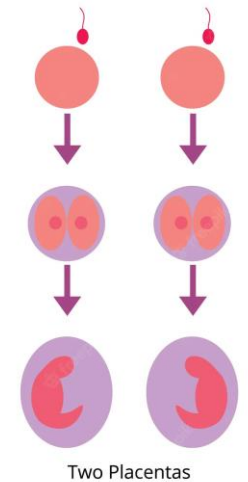
Why it happens?

- 95% of twin pregnancies is caused by double ovulation
 - Hormone disturbances
 - High production
 - High feed intake
 - Heritability
 - Breed
 - Parity
 - Season
 - Colder periods causes more double ovulations (light?)

**Identical Twins
(Monozygotic)**

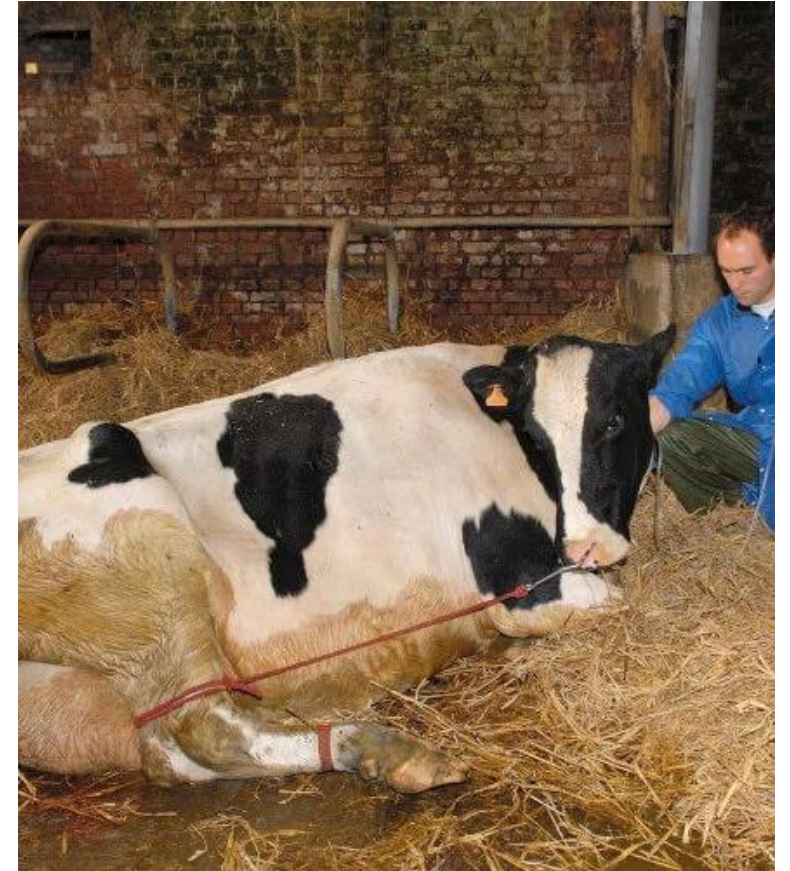


**Fraternal Twins
(Dizygotic)**



Why are twin undesirable?

- Higher risk for both cow and calves
 - Periparturient reproductive and metabolic disorders
 - Abortion, still birth, neonatal calf mortality, and reduced birth weight
 - Freemartins
- ECONOMICS!
 - \$59 - \$161 (study from 2021)



Diagnosis – its twins!

- Discover it early
 - Embryo reduction
 - Pregnancy termination
 - Culling of the cow
-
- Keep the twins and manage



Pregnant with twins

- Reduced gestation length (-5 days)
- Lose weight/stay the same in the last trimester (Energy demands are 50% - 70% higher)
- Lower DMI prepartum
- Lower BCS prepartum

Earlier dry-off

Higher plane of nutrition

Assistance at calving

Feeding – more energy in late pregnancy?

- Bell et al., 2006

- High vs low concentrate
- Low concentrate

Investigations in the future

- Cabrera et al.

- Close-up (mo
- No effect of longer close-up period
- No difference between cows with twins and singletons

- **Feeding in late pregnancy**

- Silva-del-Río et al., 2010

- Close-up for 8W vs far-off (60-21 d before ECD) and Close-up for 3W. Both twins and singles
- Energy balance was greater for cows on 8W compared to 3W