

## Agenda for Dairy Cross project meeting November 29<sup>th</sup> -30<sup>th</sup> 2023

**Location:** Vingsted Centeret, Skovvej 2, 7182 Bredsten <https://www.vingsted.dk/en/>

**Language:** English

### Wednesday November 29<sup>th</sup> 2023

**12:00 - 12:45: Lunch**

**12.45 - 13:00: Welcome / Jørn Thomasen, VG**

#### **13:00 - 14:45 AP1 Genetic values**

13:15 – 13:30 Overall project deliverables - learnings and perspectives (Ole Christensen, QGG)

13:50 - 14:20 Experiences from routine evaluations (Huiming Liu, SEGES)

14:20 - 14:50 Results from validations of new BOA model (Emre Karaman, QGG and Huiming Liu, SEGES)

14.50 - 15:00 Plan for implementation of next step for genomic breeding values (Anders Fogh, SEGES)

**14:45 – 15:15 Coffee break**

#### **15:15 - 16:20 AP2 Breeding schemes**

15:15 -15:30 Overall project deliverables - learnings and perspectives (Hanne Marie Nielsen, QGG)

15:30 - 15:50 Heterozygosity (Lisa Hein, QGG)

15:50 - 16:20 Simulation design and breeding strategies (Alban Bouquet and Margot Slagboom, QGG)

**16:20 –16:30 Break**

#### **16.30 - 17:15 AP3 Management**

16:30 - 16:45 Overall project deliverables - learnings and perspectives (Søren Østergaard, ANIVET)

16.45 - 17.15 Sector analysis (Julie Clasen, SimHerd)

**18:00 - 20:00 Dinner**

**20:00 - 21:00 Social activity**

**21:00 - The bar is open**

### Thursday, November 30<sup>th</sup> 2023

#### **8.30 - 9:10 AP4 Communication and dissemination**

8.30 - 8:50 Overall project deliverables - learnings and perspectives (Jacob Voergård, SEGES)

8:50 - 9:10 Demonstration of SimHerdCrossbred APP (Developed in AP3) and practical experiences with use of SimherdCrossbred (Julie Clasen, SimHerd)

#### **9.10 - 10.00 Did DairyCross fulfil your expectations? How to ensure maximal value creation of results? - 5-10 minutes from each partner**

Søren Borchersen (VikingGenetics), Mogens Lund (QGG, AU), Anders Fogh (SEGES)

Søren Østergård (ANIVET), Søren Østergård (SimHerd), Mads Fjordside (VikingDanmark)

#### **10.00- 10.15: Introduction to group work and Coffee**

#### **10.15 - 11:15 Group work – Groups within each workpackage**

-Learnings, -Knowledge gaps - collaboration

11:15 - 11:45 Summary of group work

11:45 - 12:00 Concluding remarks

12:00: Lunch

# Work pack 4

Jakob Lykke Voergaard

SEGES Innovation

Projekt: DairyCross



STØTTET AF  
Mælkeafgiftsfonden

**SEGES**  
INNOVATION

## Where stand workpack 4?

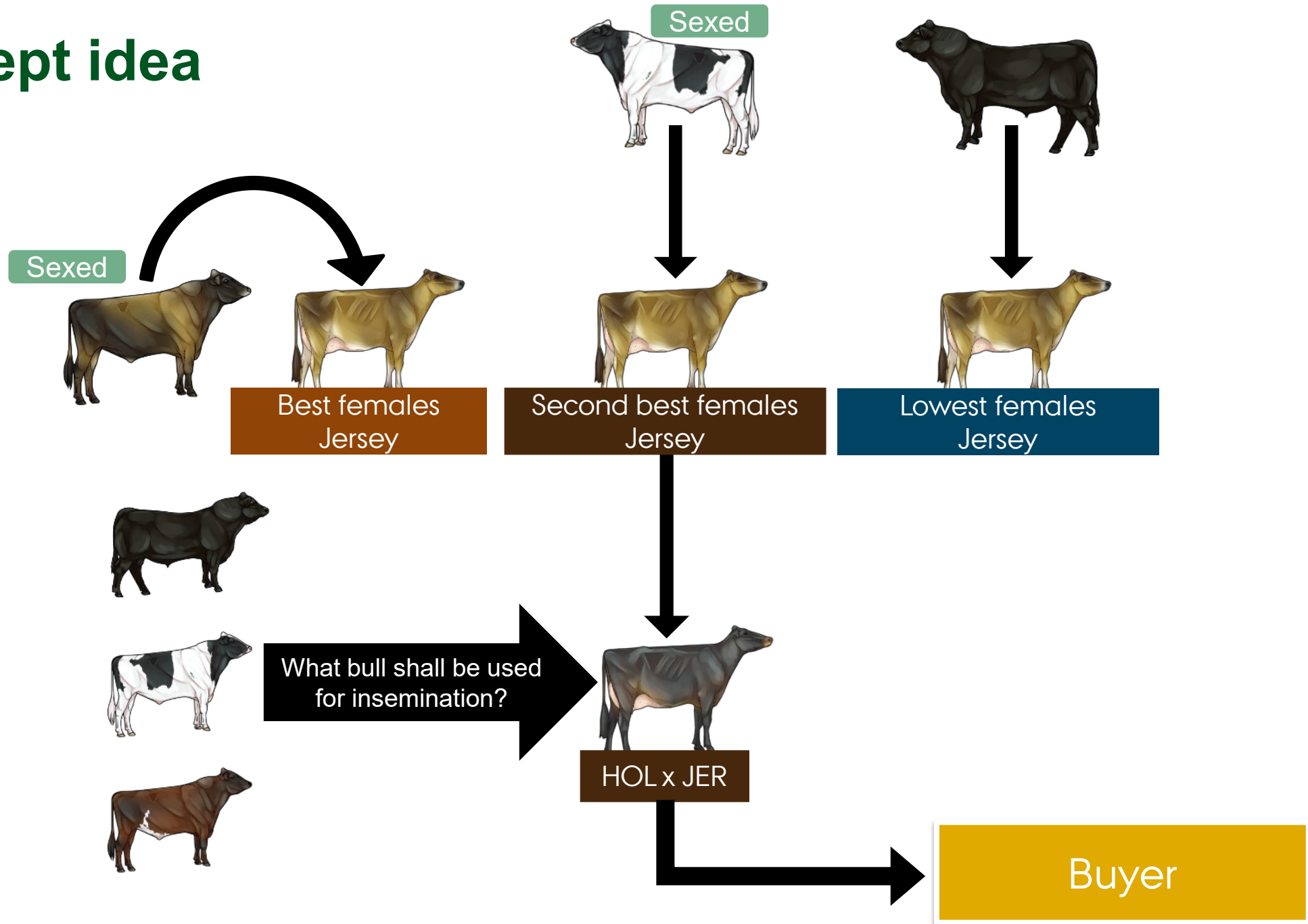
- Work pack 4 is communication of knowledge mainly from the other work packs
- Mainly active in 2022 and 2023
- Depended on the other work packs
- Activities
  - Calculation and information about genomic breeding values
  - Demo-herds
  - Inform about specialized lines
  - Inform about results from Simherd
  - Cattle congress and seminars
  - Articles in general about the work in the project

# 2020

- Two articles
  - About the Dairy Cross project
  - Collecting of genomic test of crossbreeding cows
- Started the process to find Demo-herds
- New crossbreeding concept was started up
  - Looking of herds



# Concept idea



# 2021

- Articles about introduction of genomic values for crossbreeding
  - Breeds: Holstein, RDC and Jersey
- Articles about new cross breeding concept
  - started up at Palle Bjerregård
- Barrier analyze was made
- Demo-herds were found



# 2022

- Cattle congress 1 session
  - Crossbreeding systems and barrier analyze
  - Including five videos / interviews
- Comparison of Holstein and F1 cows
- Articles about:
  - The development in the new cross breed concept
    - Farm day at Palle Bjerregård
  - Strategi made from Simherd Crossbred
  - Heterozygosity calculations
  - Genomic values of crossbreeding animals
- Starting up meeting for the demo-herds



# 2023

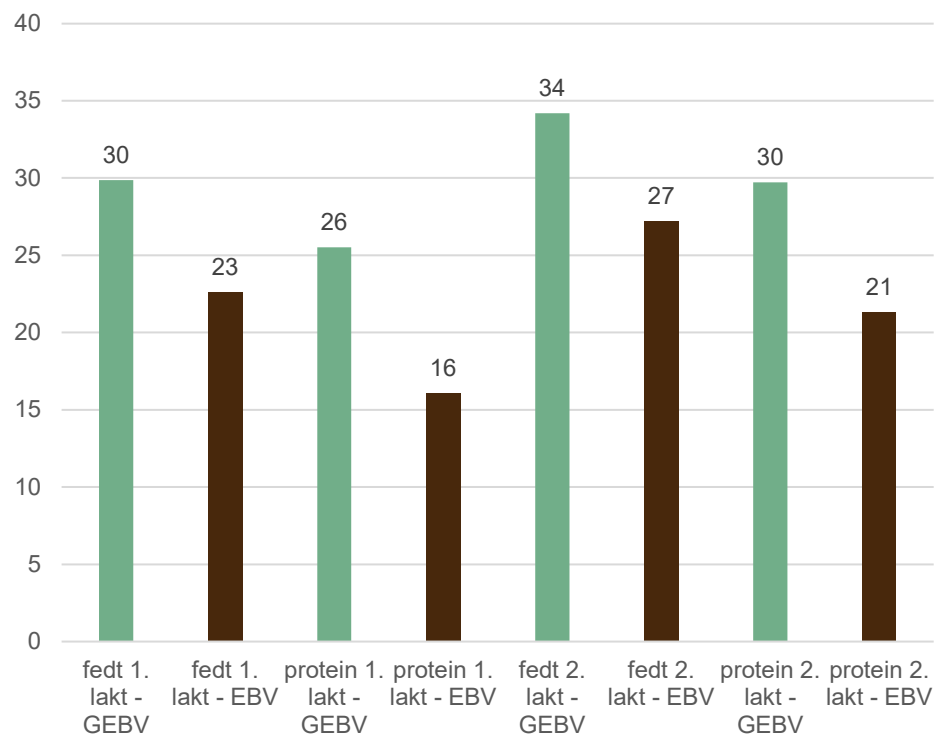
- Cattle congress 1 session
  - The value of crossbreeding
  - Genomic breeding values
  - New cross breeding concept
- Two farm days
  - Torben Due Mikkelsen
  - Sjaak Bosma
- Ending meeting for the demo-herds
- Five podcast (1 is in process)
- Landbrugs Avisen follow 7 herds that will crossbreed → 5 are back
- Articles with Simherd
  - Better economy with cross breeding
  - Less methane from crossbred cows
- Articles about:
  - The development in the new cross breed concept
  - Heterozygosity in the breeding plan
  - Genomic values of crossbreeding animals
  - Cross breeding systems



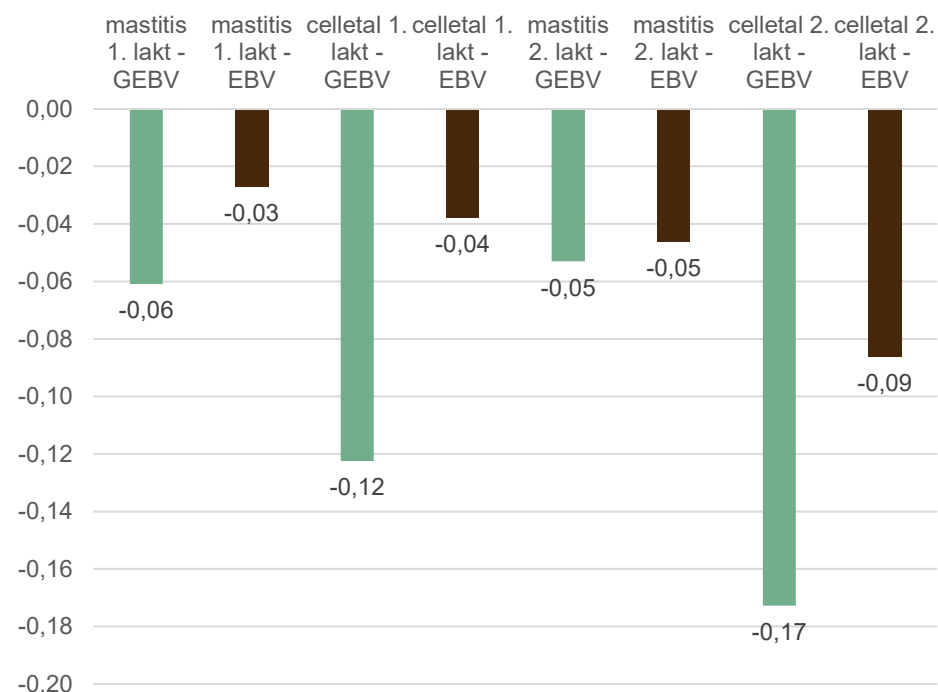


# High low index – Yield and udder health GEBV against EBV(pedigree)

Phenotypic different kg fat and protein  
High vs low index group



Phenotypic different for  
mastitis and cell count  
High vs low index group



Not all animals change group. E.g. approximated 70% of the animals stay in the same group no matter they are split on EBV(pedigree) or GEBV for protein yield in 1. lactation

# Effect of GS test on Cross-animals on herd level

Chr	11111								
Number of animals	93			Heifers born in the herd and tested in the last two rounds					
	Average on sub indexes								
	before GS	After GS	Diff.	Highest before GS	Highest after GS	Lowest before GS	Lowest after GS	Increase	Decrease
NTM	10	12	2	23	30	-8	-8	21	-18
Yield	105	108	3	119	127	91	90	18	-15
Growth		92			115		68		
Fertility	104	103	-1	110	119	98	89	13	-15
Birth		101			114		93		
Calving		102			121		93		
Udder health	104	103	-1	113	119	97	86	12	-21
General health		102			121		80		
Claw health		110			140		86		
Frame		97			132		70		
F & L		103			122		84		
Udder		104			132		76		
Milking speed		103			126		83		
Temperament		101			121		85		
Longevity		105			124		91		

# Megatrend Clima

Production systems  
Optimizations: Specializations

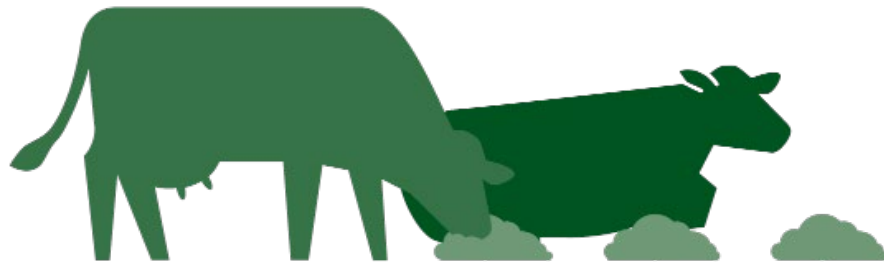
- Only milk production – no heifers
- Milk production with sale of heifers

Kvægkæden (cattle ring)  
SimHerd



# 2024

- Cattle congress 1 session
  - How to manage crossbred cows
  - Results from crossbreeding project at KFC
- Article
  - Four prejudices about crossbreeding
- ???



**TAK**  
for opmærksomheden