

# Extended lactation and milk yield - a randomized controlled trial in second lactation cows

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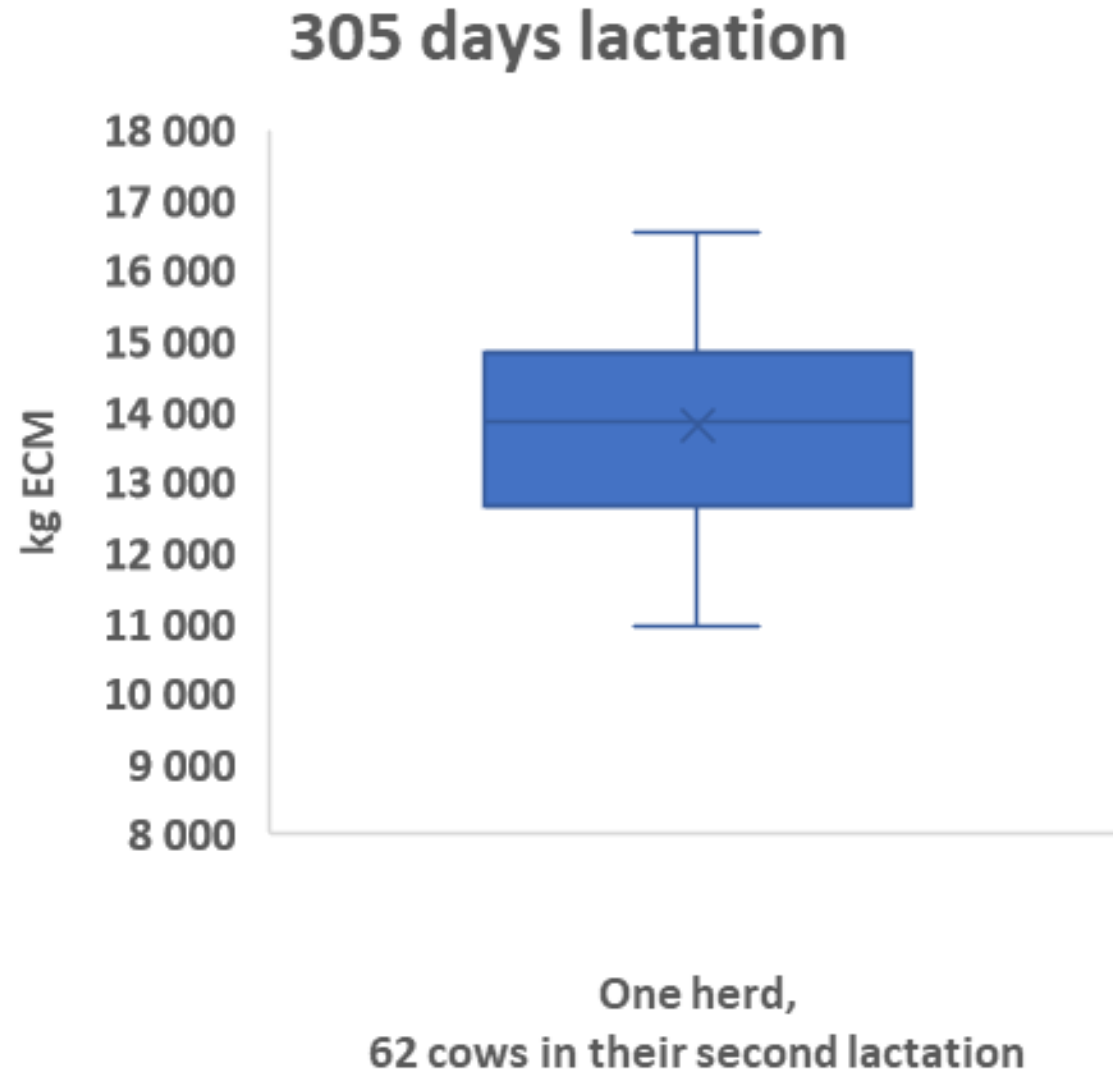
# Background

- Recommended first insemination (VWP) 50 days to reach 12 - 12.5 months calving interval
- Increased milk yield. Swedish milk recording 1990 7000 and 2022 11000 kg ECM
- Milk yield variation among cows and herds
- Lactation curve, persistency
- Heat detection rate and conception rate

→ Is 12 months calving interval optimal for all cows?!



# Individual milk yield variation within herd





# Aim

To evaluate the effects on milk production of extended voluntary waiting period (VWP)

- Kg ECM/day
- 305 days milk yield
- Total milk yield
- Milk yield at dry off

in cows in their 2<sup>nd</sup> lactation



# A field study in 12 Swedish dairy herds

Herd size: > 100 cows

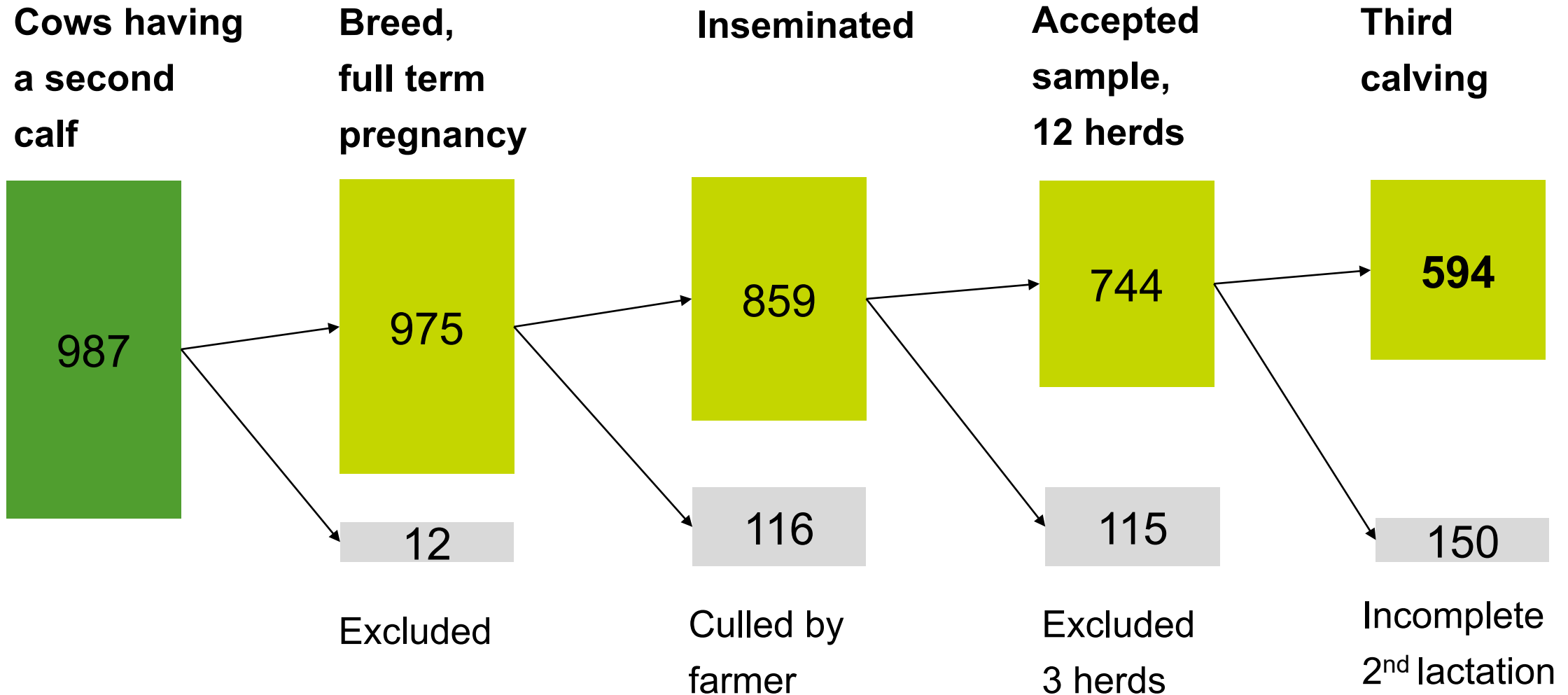
Average production: > 10 800 kg ECM/cow/year

Cows were randomly divided in to two groups:

- **Traditional** calving interval (aiming at 12 months CI):  
voluntary waiting period of **50 days (VWP50)** (n=321)
- **Extended** calving interval (expecting 15 months CI):  
voluntary waiting period of **140 days (VWP140)** (n=273)



# Inclusion criteria



## Second lactation

	VWP50	VWP140	P value
Cows, no.	321	273	
VWP, d	69	124	< 0.001
Calving interval, d	383	424	< 0.001
Dry period, d	64.2	65.7	0.34

## Milk yield in second lactation

Item	VWP50	VWP140	P value
Cows	321	273	
Milk yield/d	34.0	34.6	0.13



## Milk yield 14 - 44 days before dry off

	VWP50	VWP140	P value
<b>Cows</b>	<b>321</b>	<b>273</b>	
<b>Milk yield/d</b>	<b>34.2</b>	<b>33.3</b>	<b>0.03</b>
<b>Dry period, d</b>	<b>64.2</b>	<b>65.7</b>	<b>0.34</b>

## Milk yield third lactation, first 100 days, kg ECM

	VWP50	VWP140	P value
Cows	321	273	
Milk yield	4528	4524	0.84

# Conclusions

## VWP140 vs VWP50 indicate

- no difference in kg ECM/day
- higher 305 day lactation yield
- higher total milk yield
- lower milk yield before dry off

*Thank you for your attention!*



# Thank's for your attention

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