

# The effect of **Dry Period Length** on **Udder Health**

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**WAGENINGENUR**  
*For quality of life*

# 1. Introduction

- ❖ Shorter DP -> Improved NEB<sup>1</sup>
- ❖ Glucogenic diet -> Improved NEB<sup>1</sup>
- ❖ Improved NEB -> Better immune function
- ❖ Immune function -> Low IMI & mastitis

Shorter DP -> Low IMI & mastitis?

<sup>1</sup> Van Kneegsel, 2014

# 1. Introduction

The effect of DP length and dietary energy source on:

❖ SCC of lactation



❖ SCC elevations



❖ Clinical mastitis



## 2. Experimental set-up

- ❖ 168 cows
- ❖ Dry period length: 0, 30, 60 days
- ❖ Ration: glucogenic (G) or lipogenic (L)
- ❖ Drying off (30-d or 60-d dry cows):
  - 7 days before DP: dry cow ration
  - 4 days before DP: 1x daily milking
  - Drying off: intramammary antibiotic (Supermastidol)

## 2. Experimental set-up

### ❖ Concentrates (glucogenic/lipogenic):

- 10 days prepartum: 1 kg
- Postpartum: +0.5kg/d
- 17 - 100 days postpartum: max 8.5 kg

### ❖ Concentrates (lactation)

- 100 – 305 days postpartum

### ❖ Forages

# 3. Measurements

❖ Data: available on every dairy farm

- Prepartum monthly milk production registration
- Postpartum daily milk production, and weekly milk components

## 4. Results prepartum (complete lactation)

- SCC



**105.000**

## 4. Results prepartum (complete lactation)

- Elevations

- ( $>200.000$  cells/mL after 2 months  $SCC < 200.000$  cells/mL)



83



65



## 4. Results prepartum (complete lactation)

- Clinical mastitis



39



33

## 4. Results postpartum (complete lactation)

- SCC was different for dry period length 0 vs. 30 vs. 60

**0**



**232.200**

**30**



**177.800**

**60**



**141.400**

## 4. Results postpartum (complete lactation)

- SCC was not different for ration

**G**



**181.700**

**L**



**184.100**

## 4. Results postpartum (complete lactation)

- Elevations of SCC was not different for dry period length

— (>200.000 cells/mL after 2 weeks SCC<200.000 cells/mL)

0



2.36



80%

30



2.33



82%

60



1.80



83%

## 4. Results postpartum (complete lactation)

- Elevations of SCC was not different for rations
  - ( $>200.000$  cells/mL after 2 weeks  $\text{SCC} < 200.000$  cells/mL)

**G**



**2.13**



**76%**

**L**



**2.20**



**80%**

Ration  $p=0.53$

Ration  $p=0.60$

## 4. Results postpartum (complete lactation)

- Mastitis was not different for dry period length

**0**



**1.46**



**27%**

**30**



**1.29**



**27%**

**60**



**1.21**



**26%**



## 4. Results postpartum (complete lactation)

- Mastitis was not different for ration

**G**



**1.29**



**25%**

**L**



**1.45**



**27%**

DPL  $p=0.75$

DPL  $p=0.82$

## 5. Conclusions

- Ration -> no effect on udder health
- Cows with 0-d DP-> SCC higher
- DPL -> no effect on mastitis or elevations of SCC



# TAKE HOME MESSAGE

Shortening DP



↑ NEB

&

No negative effect  
on udder health

