

# Effect of diet on reproductive response of cows

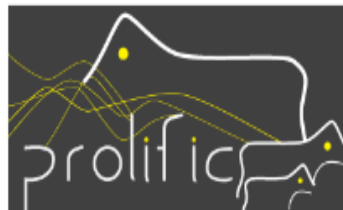
Bertebos conference

New Ruralities – Changing Agendas for Research and Practices

August 2014

Theodoros Ntallaris, spec, DVM

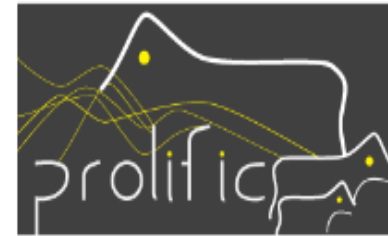
PhD student



Pluridisciplinary study for a **RO** bust and sustainable **Le** Improvement of Fertility In  
Cows

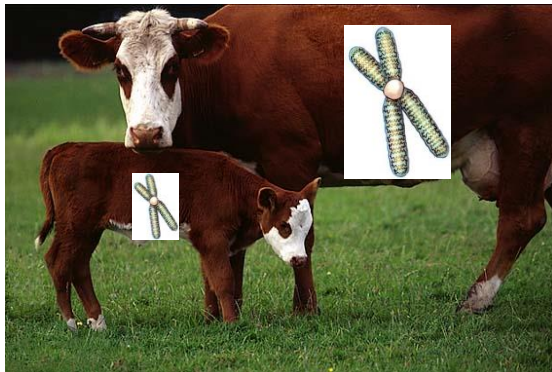


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**13 organisations in  
8 countries:**

France  
Sweden  
Ireland  
The Netherlands  
Denmark  
U.K  
Spain  
Italy





# overview

Background

Aims

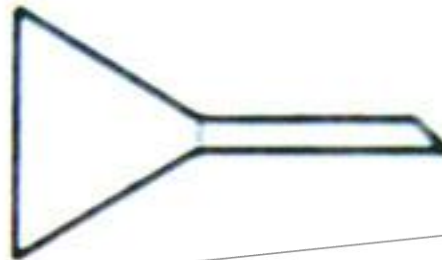
Study Design

Site and Models

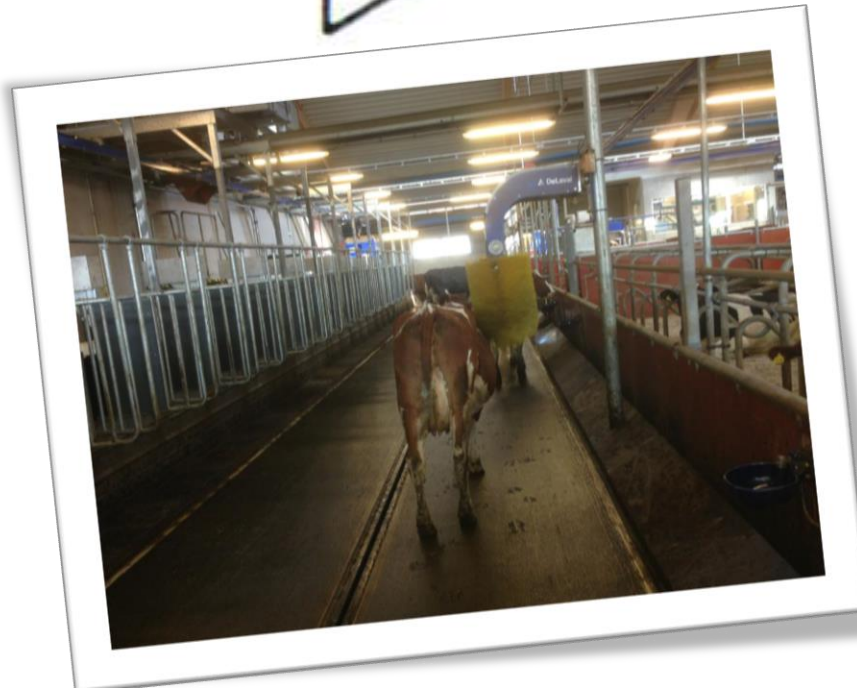
Preliminary Results

# Background

Metabolic disorders  
Negative energy balance  
Milk production



Reproductive function



# Background

Milk production  
vs  
fertility



submitted to a more or less pronounced  
metabolic imbalance

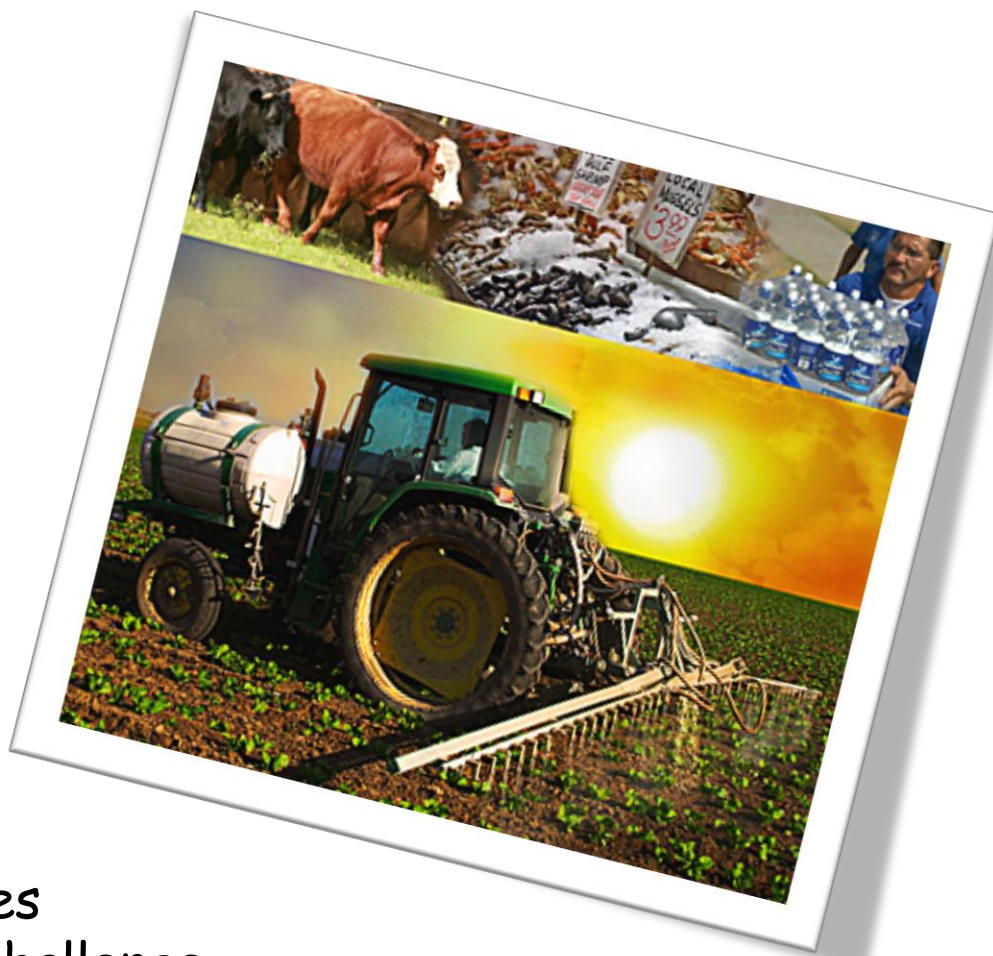
Negative Energy Balance



Fertility

# Background

The impact of the future climatic changes



Climatic changes  
A future nutritional challenge

# Aims

To improve dairy cow fertility / “an easy and robust cow of the future”.

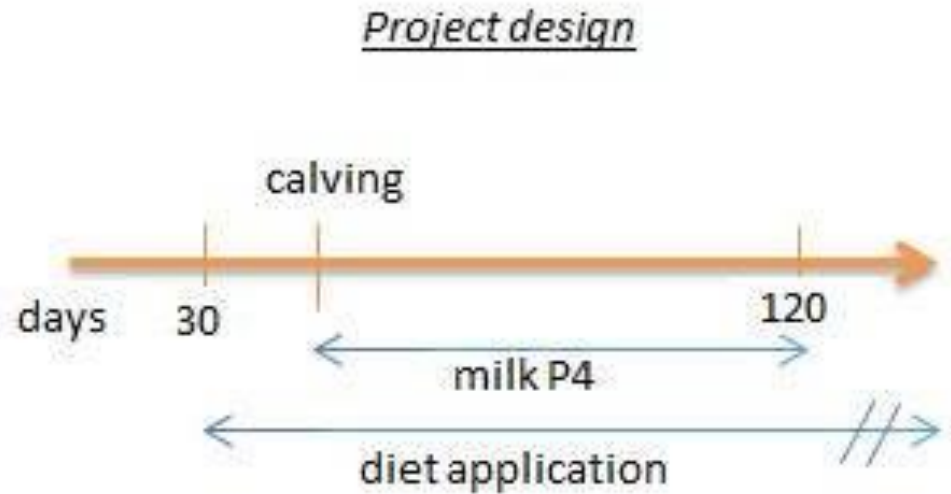
To investigate the influence of feed intensity level and breed on the interval from calving to initiation of luteal activity.

We are interested in the effect of management system on milk production, body reserves and into different indicators of metabolic status in lactating cows.

Compares the effects of different sustainable feeding management systems on reproductive performance and indicators of fertility and nutritional status.

# Study Design

- 27 primiparous dairy cows
- Kept in a loose housing system and milked in a voluntary milking system (DeLaval, Sweden).
- The control group (n=13) normal diet for high producing cows (expected production: 35kg Energy-Corrected Milk,(ECM)).
- The low diet group (n=14) -50% concentrate and +24% silage in the diet when compared to control (expected production 25kg ECM).
- 3 times/week milk samples collected and milk P4 was



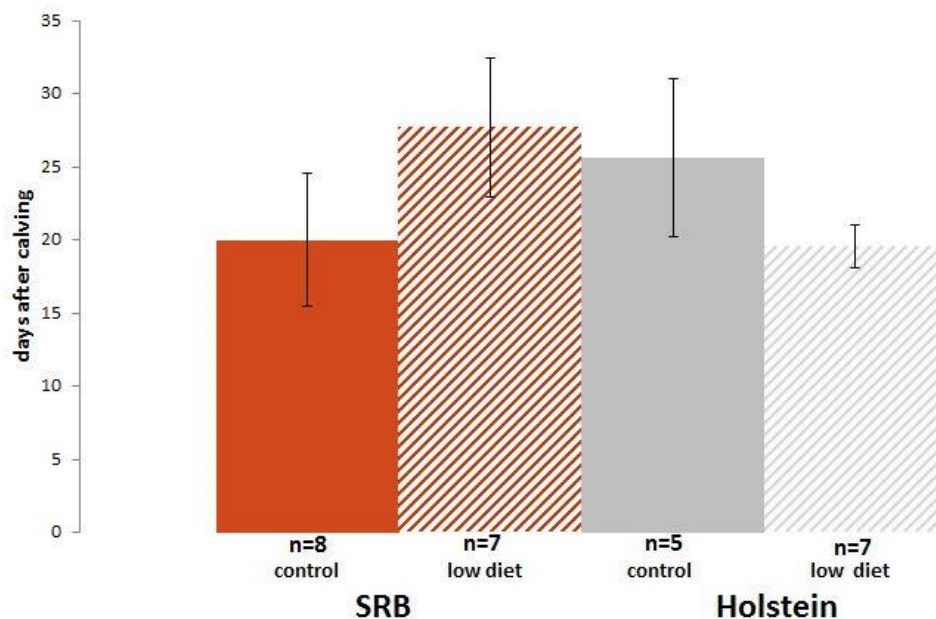


# Preliminary results

No significant effects of breed and diet on initiation of luteal activity found.

Tendency for more normal cycle lengths in SRB.

The initiation of luteal activity (mean  $\pm$  se)



# Location



2 Genotypes in same conditions

Lövsta

**Thank you for your attention**

