

# Foster cows and calves in co-grazing systems in Norway

## Problem

Cow-calf contact systems contribute to natural behaviour, positive effect on physiology and animal welfare. Early separation of the calves is debated, and it is important to find practical solutions to cow-calf contact in co-grazing systems.

## Solution

We have interviewed farmers, tested a nurse cow system at a summer pasture on a farm in the Middle of Norway and collected information from literature studies and face-book groups, and share some recommendations.

## Impact

The main impact is well nourished and healthy calves, less work with calf feeding and care and a step towards a more natural behaviour for the calves and cows.

## Practical recommendation

In our grazing experiment crossbred nursing cows (Norwegian Red × Limousine) were selected for nursing. The cows were given one foster calf in addition to their own calf.

By literature review and interview of farmers with long experience, we give some recommendations for different practical solutions for nurse-cow systems.

It seems that both dairy cows and cross breeds very well can feed at least two calves on outrange grazing area and without any concentrate if the grazing area has pretty good production.

One of the most experienced farmers recommend separating the calf from their mothers at 5 days, then move them to a pen with 3-4 nursing cows and calves of about same age, and then they can go to pasture together. Some farmers take the foster calves from their own mother at once they are born and let them stay together with the foster mother and her own calf in a separate pen for 5- 7 days, to make a family bond between the foster calf and the foster mother.

Each nursing cow can have 2-4 calves, and they suckle until they are 3-4 months of age. Some farmers allow suckling up to 6 months. The nursing cows are selected for caring ability and are often cows with udders not fit for the AMS.

It is important that the calves get enough colostrum during the first few hours. If necessarily give them at least 4 litres x 2 within the first 12 hours by a stomach tube.

In our experiment the calves spent nine weeks on pasture together with their respective (foster) mothers. The pasture was very poor that year and we had to separate three foster calves due to undernourishing. The other calves were healthy and well nourished. In our experiment cows and calves had shelter in the nearby wood, but if not, calf shed must be built. We also surveilled the cows and calves with GPS-collars with position and accelerometer data, so we could follow the

## Applicability box

### Theme

Animal welfare

### Keywords

Cow, calf, co-grazing

### Geographical coverage

Northern countries

### Application time

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### Required time

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### Period of impact

Grazing season

### Equipment

Fencing systems, calf shed, surveillance sensors (GPS, accelerometer, fencing systems; Nofence)

position from an app on the mobile phone. This equipment also has an electric fencing system which can help the farmer to use even larger grazing areas. Weaning was abrupt, and cows and calves stopped bawling after 3-4 days.



Picture 1 (left): Foster calf and own calf suckling, own calf in front



Picture 2 (right): Foster calf suckling random cow

Period	Own calves Limousine crosses	Foster calves NRF	Control group calves NRF
	n=5	n=5	n=5
0-35 days	1239 g/day	554 g/day	761 g/day
	SD= 106,8	SD=124,6	SD= 261,4
0-120 days	SD=192,7	SD=100,4	SD=272,7
	1131 g/day	784 g/day	1036 g/day

Figure 1: Daily weight gain for the calves up to the age of 35 and 120 days.

## Further information

**Further readings:** Kalvelykke & Grazy Daisy, short report Norsøk

**Weblinks:** [www.agropub.no](http://www.agropub.no)

## About this practice abstract

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**Project website:** <http://projects.au.dk/coreorganiccofund/research-projects/GrazyDaisy/>

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