Implications of cow-calf contact for dairy calf welfare

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BACKGROUND

On dairy farms calves are withheld from maternal care, which can result in:

✦ Reduced welfare: unfulfilled needs (e.g. suckling)
✦ Societal concerns

Might compromise dairy farmers’ license to produce

Knowledge on long-term effects of cow-calf contact and suckling on behavioural and biological functioning of dairy calves is lacking.

OBJECTIVES

Investigate the effect of rearing methods with different levels and components of maternal care on calf welfare.

i) Determine the most relevant cow-factors (e.g. maternal licking, suckling) for calf welfare.

ii) Examine if these cow-factors can be implemented or mimicked in practice.

iii) Investigate the least stressful method for weaning and separation.

METHODOLOGY

✦ Follow female calves (N = 120) from birth to early adulthood on one Dutch dairy farm.
✦ Assess behavioural, physiological, immunological, and microbiological indicators for welfare in cow and calf using a multifactorial experimental design.

Treatments

i/ii) Three groups with different levels of cow-calf contact:

✦ No contact
✦ Physical contact but no suckling
✦ Full contact including suckling

Within those three groups several cow-factors vary accordingly:

✦ Intake of colostrum (administering vs. suckling)
✦ Tactile stimulation (brushing vs. maternal licking)
✦ Milk source (milk replacer vs. cow milk)

iii) After 8 weeks calves within the two groups with cow-calf contact will either undergo:

✦ First separation from cow, then weaning off milk.
✦ First weaning off milk, then separation from cow.

SOCIETAL IMPACT OF MY RESEARCH

There is a public opposition to the early separation of cow and calf and a social demand for farming systems that allow maternal care. This study will:

✦ Provide insight in pro’s and con’s of cow-calf contact during the first 8 weeks of life.
✦ Identify potential welfare enhancing farm practices.