

The Cow-Calf Relationship - its Developmental and Fostering:
from Maternal Responsiveness to the Maternal Bond

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Short Title: The Cow - Calf Relationship

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Summary

The relationship between the cow and calf develops over time after birth. The behavioural mechanisms underlying its development are important and comparisons with other species will increase our understanding.

In nature the cow will separate herself from the herd to give birth and then the cow - calf relationship develops with the ability to recognise each other. While twinning levels are low in cow's they do rear their twin calves. If the calf is lost at or after birth the cow can be responsive towards other calves and in specific circumstances the cow can develop a maternal bond with an alien calf ie. foster. A distinction is made between the development of 1. maternal responsiveness that is, the tendency of the cow to care for a calf which occurs before birth and 2. the development of the maternal-filial bond or relationship which is reciprocal, occurs after birth and is characterised by the ability to discriminating own from alien. These processes can overlap and the relationship between cow and calf in this 'hider' species is more plastic than in some other mammals. For example, a cow might form an attachment with an alien calf before she gives birth. After the cow has given birth the loss of her own calf may result in the state of maternal responsiveness being maintained, and the developing a maternal bond with an appropriate alien calf(s) is possible.

Viable fostering techniques are possible. If a maternal relationship has developed then fostering will be more difficult. If the cow's relationship with her own calf is not exclusive, and she is in a state of maternal responsiveness then fostering of calves of an appropriate age and status can be achieved.