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SOCIAL GROOMING PATTERNS OF DAIRY CATTLE

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The social grooming behaviour of two herds of cows was observed over an 11-week period, (a) to give better descriptive information of herd parameters with relation to social grooming, (b) to correlate the giving and/or receiving of social grooming with the individual cow measurements such as size, age, and production, and (c) to ascertain what function social grooming might play in cattle herds. Both herds were composed of twin pairs.

Inter-cow suckling, though noted, was not considered social grooming, nor was licking which was confined to the anal region. For licking to be considered grooming, it had to begin around the head and forequarters.

The daylight herd social grooming cycle for 104 milking cows showed a mid-morning peak and another in late afternoon. Both milking times and consequent grazing periods influenced the times of bouts of social grooming. The 40 non-lactating heifers showed a mid-morning quiescent period building up to a mid-afternoon to evening peak of grooming activity. Eighteen percent of milking cows and 2½% of the heifers did not groom.

The number of times grooming was given correlated with the groomer's age ($r = 0.25$) and body weight ($r = 0.22$) in non-twins, as did the time spent grooming age ($r = 0.28$) and body weight ($r = 0.22$). The number of non-twins a cow received grooming from correlated with her age ($r = 0.35$), body weight ($r = 0.29$), and milking order ($r = 0.30$), and the amount of time that a cow received grooming from non-twins related to age ($r = 0.37$), body weight ($r = 0.24$), milk weight ($r = 0.20$), and milking order ($r = 0.26$). The place in the milking order correlated with both the time cows spent grooming their twin ($r = 0.23$) and the amount of time cows received grooming from their twin ($r = 0.23$).

As giving and receiving within twin pairs was highly correlated ($r = 0.44$ in cows and $r = 0.55$ in heifers), these findings reinforce the idea that social grooming is an index of "friendliness". As grooming is important as a behaviour leading to social stability

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within a herd, it could well have a role in eliciting high herd milk production. When good social groomers are culled, the whole herd harmony may suffer. As the number of cows grooming and the number of seconds given was highly correlated ($r = 0.87$), and the number of cows grooming was received from correlated highly with the number of seconds received ($r = 0.69$), either measure may be used as an index of herd "harmony".

The nutritional hypothesis for the causation of social grooming does not adequately explain the relationships found in these data.

The use of social grooming for the ingestion of anti-bloat materials by strong groomers would seem feasible as grooming patterns are regular between specified cows, especially among twins, and at least 80% of herd members are involved in social grooming.