

Low stress and safe handling of outdoor cattle - effective measures to improve work environment and avoid dangerous situations

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Implications

Grazing cattle are needed to preserve 450 000 hectares of semi-natural grasslands of high biodiversity in Sweden. Keeping cattle outdoors promotes their health and possibilities to conduct natural behaviors. Working with cattle on pasture however, can increase accident rates (Health and Safety Authority, 2011). During the last two years, five fatalities and several accidents have occurred during handling of cattle in Sweden. A method, based on knowledge of the animals' natural behavior, referred to as low stress stock handling (LSS-method), has been introduced to Sweden for cattle handling (Atkinson, 2011). A handler who consistently uses this method prevents the use of hits, sticks, harsh voice or negative forceful handling techniques. A consistent predictable approach from the handler creates consistent and predictable animal behavior in return. Cattle become more trusting with their handlers and consequently more cooperative. This positive interaction between human being and animal can lead to both a safer work situation and a better animal welfare. On two of five studied farms so far, the LSS-method was actually intervened during the observations, resulted in a successful reversal of conflict behaviour. On farm1, a highly stressed heifer took over three hours in attempt to load into a transport. It was successfully loaded within an hour after the intervention. On another farm, five escaped cows that the farmer had attempted to capture unsuccessfully for three consecutive weeks were successfully captured through using the LSS-method.

Background

Sweden has one of the highest accident rates related to cattle handling, compared to Norway, Finland and Australia, although those countries have more beef producers. In Australia, regular courses on low stress stock handling are given to farmers by professionals working in this field. Anecdotal evidence suggests farmers who have completed the LSS courses in Australia, handle their cattle more effectively and safely.

Objectives

This project aims to educate a group of Swedish farmers with cattle on pasture to use the LSS-method of handling, in order to improve safety and reduce stress in both human being and animal. A further objective is to test and evaluate the training of the LSS-method to develop a corresponding course adapted to Scandinavian farmers.

Preliminary results and discussion

Table 1 shows information about farms, the tasks studied and working consumption expressed in man hours. On farm1, work consumption was considered particularly high. The farmers mentioned that the task performed on the day was rather difficult due to two heifers being highly stressed when attempting to capture and load them on to a transport from the field. Moving cattle by transport trailers required a high consumption of man hours and number of people. Some of the cattle did several turn backs, escapes, jumps, kicks and falls when cattle were loaded into the trailers in the field. Physical forceful pushes (or hits) towards the cattle with hands, body or by gates by the handlers frequently occurred on all farms where cattle were transported.

Several dangerous risk incidents occurred at the farms, e.g., when standing in front of a heifer using feed to encourage forward movement, a person was hit in the forehead by her horn; a heifer jumped over a man during an escape attempt before transport loading, a heifer ran through the handlers while they were attempting to block her from an escape attempt, and a person tumbled while trying to block a cow from escaping during transport loading.

Table 1. Information about the farms, tasks and working time consumption per person studied

Farm nr	No. of cattle/(bull)	Pasturing period	Tasks studied	Worker (no.)	Time (hour)*
Farm1	30 (1)	Whole year	Transporting 4 highland cattle from forest grazing to farm pasture(2 trips at driving distance of 6 km)	5	11,3
Farm2	181 (1)	May-Oct	Transporting 7 cattle from forest grazing to barn; moving a cattle group, sorting out 2 young bulls	2	2,6
Farm3	306 (6)	May-Oct	Transporting 17 cattle from forest grazing to barn (3 trips at driving distance of 2 km)	3	5,0
Farm4	434 (6)	May-Oct	Sorting & transporting 40 cattle to barn from a pastureland (3 trips at driving distance of 5 km)	3	7,6
Farm5	81 (1)	Whole year	Moving & spraying medicine on 51 cattle on pastureland and moving them to a near pasture	3	6,4

*Calculated as time consumption per person

In general the farmers visited had a positive attitude towards their animals, and were keen to learn tips on alternative handling methods. It is expected that the farmers will be able to move groups or individual cattle to new paddocks, pens or into transports by walking them with less physical force, through training in the LSS-method. Refusal, flee, fright or fight behaviours in the cattle should also be reduced and achieved with less need for handling devices/transports, less conflict, time consumption and fewer handlers.

How work was carried out

Field studies have been conducted on 5 beef farms with at least 20 cattle and one bull. The work tasks investigated were: moving to and from pastures, sorting and transportation of cattle from summer pastures to winter areas. Interaction between human being and animal (stress levels: heart frequency, behavior and working time) were recorded during the animal handling in the field. The field studies comprise three phases as follows:

Phase 1. Observation of animal and farmer behavior during handling of cattle on farm and interviews with the farmers regarding their work environment.

Phase 2. Theoretical and practical training of the LSS-method with the farmers studied;

Phase 3. Evaluation of training effect on the farmer's animal handling.

Note that part of phase 1 has already been carried out and phases 2 and 3 will be performed in the coming year.

References

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