

Cow Behaviour

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The modern dairy cow is coming under increasing stress with growing herd sizes and greater demands to produce. With the demands of the daily running of a dairy farm it is possible that our dairy cows are being stressed by not allowing natural behaviours. The outcome – whether it be a drop in production, infertility, infection or pain - may be the first sign to the farmer that things are not right.

In order to ensure that cows have the freedom to behave normally, we first need to have an understanding of what is normal behaviour for a cow, what is natural.

Where managers understand the basics of human behaviour when dealing with animals – in our case dairy cows – adjustments to facilities and procedures can be made to make milking an "exercise in contentment".

Not only will people perform better, the content cows will respond by flowing more smoothly. A content herd will have better milk let down, produce more, have a lower cell count and less foot damage.

Cow behaviour:

Good cow - human relations start with an understanding of the cow and how she normally behaves. We can adjust what we are doing to fit in with these behaviours and the cow will respond and do what we want. We can adjust our facilities to make allowances for these and the cow will behave "better". We can notice the signs - "cow signals" when a cow is behaving abnormally and find the causes.

Following is a list of some of the normal cow behaviours that we see (and with each one suggested responses in the cow / human relationship.)

The Individual Animal

1. Large and heavy, not athletic:

- a) therefore not fast moving (some humans expect fast movement) Cows walk at 2-4 km/hr.
- b) has large turning circle (watch facilities should be designed for "truck and trailer")
- c) likes flat surfaces can handle slopes up and down but not sideways. Tends to face uphill, if the slope is greater than 3-4%.
- d) <u>normal walking</u> back foot follows front in full stride (if the cows are not bunched together when walking).
- e) <u>head down</u> to maintain balance, vision, and for damage control (to handle a stone under a foot the cow lifts or lowers her head depending on which foot is affected)
- f) <u>normally walks forward</u> going backward means that a cow is trying to escape from something (eg slippery concrete, a dominant cow or a frightening person or noise).

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2. Balance points:

- a) shoulder –in order to "escape" a cow goes forward away from someone standing behind the shoulder. So in order to get a cow to walk forward, walk past it, going to its rear ie in the opposite direction to the one you want it to go)
- b) backbone side to side movement. If you are standing behind a cow you can cause her to move to the left by standing to the right of her midline and vice versa.

3. Learns certain things, especially routines, well:

- a) The cow is a <u>creature of habit</u> changes will confuse her, so therefore we need to maintain the same routines every day.
- b) But the cow is adaptable can be taught to adjust everyday is a training experience for the cow either good or bad.
- c) Cows remember bad experiences (Eg hitting, bending tails, shouting, injury to hips on pipework) relearning can take a long time.
- d) Cows recognize people (good and bad) maybe by smell (eg smoking), voice or colour.
- e) Cows enjoy human contact such as stroking or rubbing, resting a hand on their back or kind talking.
- 4. A cow has a personal space "flight zone" varies according to how "tame" it is and whether it has been hurt in the past. In dairy herds this flight distance is about 3-5 metres. If a person is inside this zone a cow will try to escape (according to the position of the person either forwards or backwards). If a person is outside this zone the cow will turn to look at them. (Looking a cow in the eye, however, effectively penetrates its personal space)

5. A cow is frightened by:

- a) unexpected sudden <u>sights</u> eg changes in colour, or new unfamiliar objects eg clothes over a fence, appearance of herd testing equipment or a different person. Note there is a "blind spot" in the cow's vision directly behind.
- b) -unexpected or sudden <u>sounds</u>, eg shouts, tapping on pipework. Cows are very sensitive to high pitched sounds.
- c) anything dangerous eg slippery surfaces, stray electricity.
- d) dark where she can't see where she is going. Eg into a dark milking parlour.
- e) fast moving things eg flapping things, people or dogs.
- f) a higher dominance cow's head. (she is more afraid of this than a person or dog when being herded on a track)
- g) The normal response to a fearful object is to baulk or stop moving, ears up and then turn away.
- <u>6. Respond positively to quiet continuous sound</u> eg gentle radio, pulsators, and gentle talking.
- 7. Heifers (lower dominance) and older cows (or higher dominance cows) behave differently when tightly packed. Normally heifers will pull backwards away from older cows, while higher dominance cows will push forward harder against and among other cows

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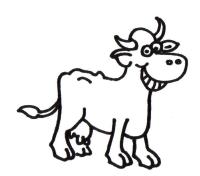
The Herd.

Many of the individual cow behaviours above also apply to the whole herd. There are, however, some other things which need to be mentioned for cows in the herd situation. 1. Cows like to be with others

- a) separating an animal is stressful, they like to maintain visual contact with other herd mates most of the time.
- b) they like to be close but not too close to the other cows in the herd. They don't like <u>sideways bumping</u>. It puts them off balance, and reduces their ability to escape from more dominant cows.
- <u>2. Cows are followers</u> they naturally follow the leader going forward even across open spaces in paddocks or wide tracks if the leader will start walking the rest will follow.
- 3. There is a pecking order in the herd. Dominant cows may be different cows to the leaders. (3)
 - a) 50% of the dominant cows are in the front third of the herd. The rest are spread throughout the herd and these cows control the herd walking speed. Dominant cows draw cows behind them as they move forward and cause cows in front of them to hurry along often by giving them a bunt. This is the "Push pull effect".
 - b) There is a <u>walking order and a milking order and they are different.</u> Cows need time and space to readjust from a walking order to a milking order after they arrive at the milking shed.
 - c) when a cow is moved from one herd to another, her dominance position needs to be established and stabilized.
 - d) when a cow joins the herd (eg newly calved) it needs to find its place. This is usually established within two weeks.

Conclusion

A cow allowed to express normal behaviour as an individual and in the herd will behave in certain predictable ways. The herd will flow well and people will be content. Poor cow flow is often the result of the lack of understanding of cow behaviour in the way people manage cows, and in the poor design of the facilities. Poor cow flow can also result when staff are expected to work long hours in difficult conditions and as a result become impatient with the cows.



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