Handling Cattle at Abattoirs and Markets

Summary

Effective, sympathetic handling of cattle at markets and abattoirs is essential to minimise bruising, improve meat quality and maintain animal welfare.

Correct system design, with attention to detail, will greatly assist cattle movement and improve working conditions for stock people

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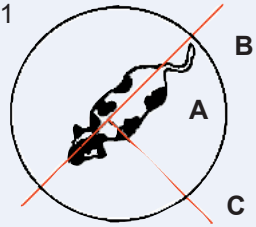
General Information

All cattle have a 'Flight Zone'. The size of the zone depends on the individual. By making use of this zone, stress for both the animal and handler can be reduced.
Figure 1 shows where to stand in order to make the animals move in a particular direction.

Figure 1



Handler Position	Cattle Reaction
A (Inside zone)	Cattle move away
B (Outside zone)	Cattle stop moving
C (Point of Balance)	Cattle stand still

Cattle also have:

- a good sense of smell.
- a dislike of contrasting colours.
- 340^{o} panoramic vision with narrow limits of clear vision at front.
- a sensitivity to high frequency sounds and dislike of sudden noises.

⇨ Cattle move well from dark areas to bright light.

⇨ Handle using calm considerate techniques with a patient, confident and vigilent handler.

Generic factors to consider in cattle handling systems:

Floor surface: Non-slip throughout, deep 2.5cm V grooves in a 20cm square or diamond pattern.

Gate function: Double hinged gates which swing forwards and backwards.

Gate operation: Eliminate walking in front of cattle by operating gates in front and behind with ropes.

Noise: Dampen moving parts in gates with noise absorbent material.

Light levels: Gradually increase the light intensity through the handling system to 100 lux.

Operational flow: Direction of cattle should be clear and uncomplicated and allow operator movement without affecting cattle.

Effective Factors to Assist Handling and Reduce Coercion

Unloading/loading facilities:

Platform height = 40 - 50cm allows a downward angle of 10^{o} for tailgate
Lairage entrance = 550 - 650cm from the end of the bay

⇨ Offsetting the entrance to the lairage will calm movement and slow cattle down.

Raceways:

Width = 76 - 80cm.
Length = Proportional to speed of line.
Lean over = 67 - 97cm is acceptable for majority of workers.

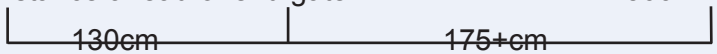
⇨ Cattle should not stand in the raceway for long periods.

⇨ The race should be virtually empty before the next group of cattle are presented.

⇨ Minimise the time individuals spend in the raceway.

The crush:

Crush lengh (excluding yoke to front gate). = 175cm or more
Position of yoke (from front of crush) = 130cm.
Distance ahead of end gate = 150cm.



Front of crush Yoke End of crush

Stun box:

Box length (exclusive of head restraint) = 260cm
Box width = 76 cm maximum

⇨ Irrespective of size, a push gate helps restrain the animals efficiently

⇨ Head shelf restraints limit the movement of the head, allowing shot accuracy to be improved without causing added stress, often associated with 'active' restraint systems.

Sale ring:

To ensure calm movement through the ring, thought should be given to the race width, floor surface, gate movement, stability of the weighbridge and the general noise associated with the ring.

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Are you altering you handling system? Then consider:

1. Conformity

- Is it legal? ☐
- Has it been tested? ☐

2. Flexibility

will it adapt to future:

- building changes? ☐
- operational changes? ☐
- cattle breeds / sizes? ☐

at stun does it present:

- cattle in single file? ☐
- cattle at the required rate? ☐

3. Useability/reliabilty

Can it be easily:

- installed? ☐
- operated? ☐
- inspected? ☐
- maintained? ☐
- cleaned? ☐

Are dimensions suitable? ☐

4. Animal factors

Is it suitable for cattle use? ☐
Is there no risk of injury at all? ☐
Does it prevent goading or excessive coercion? ☐
Can cattle walk at a natural pace? ☐
Does it prevent balking? ☐
Does it limit cattle waiting time? ☐
Does it encourage cattle forward? ☐

5. Environmental factors

Have you considered:

- heating? ☐
- lighting? ☐
- ventilation? ☐
- noise? ☐

(for operator and animal)

6. Human factors

Is it safe for humans? ☐
It is easy to operate? ☐
Is handling made easier? ☐
Can all parts be reached? ☐
Have staff approved it? ☐
Do staff understand the reasons behind it? ☐
Does it cater for worst case operators? ☐
Are there operator escape routes? ☐

7. Cost

Is it affordable in terms of:

- installation? ☐
- running? ☐
- maintenance? ☐

Is investment justified? ☐

8. Future implications

Have all future implications been considered? ☐

Adapted from Link: Improved Handling Systems for Pigs at Slaughter

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