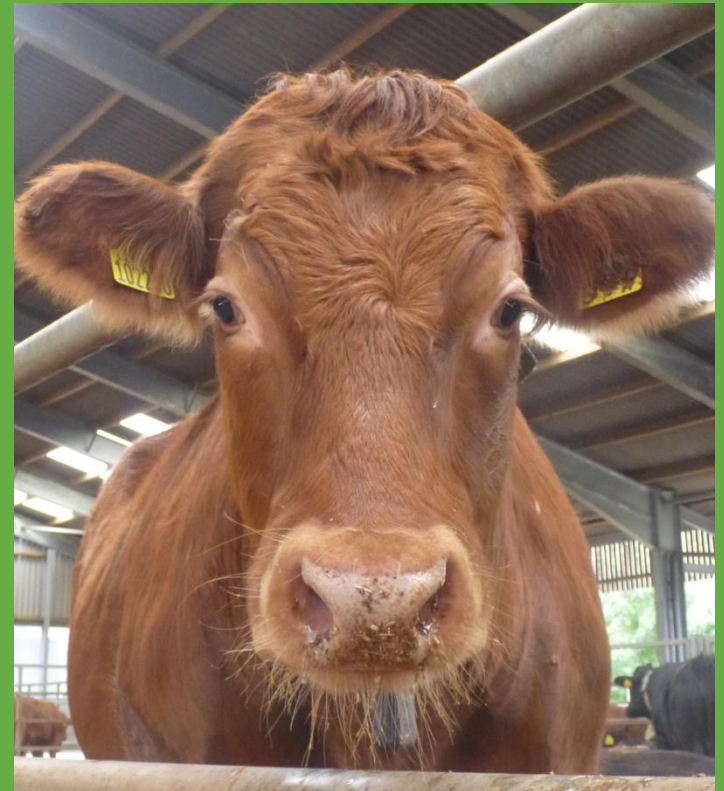
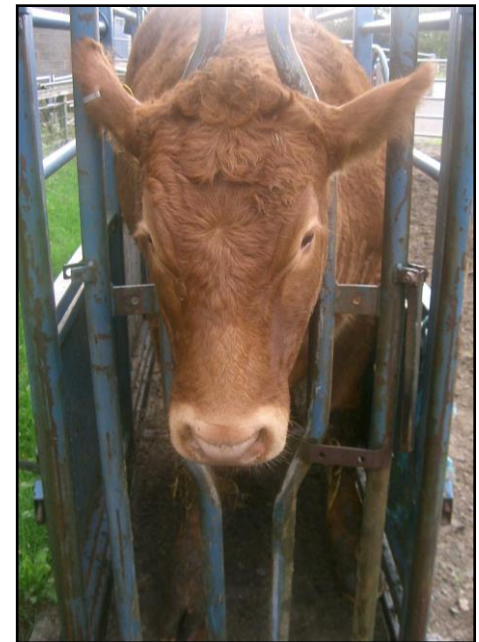


Cattle temperament and handling

Simon Turner
Research Division

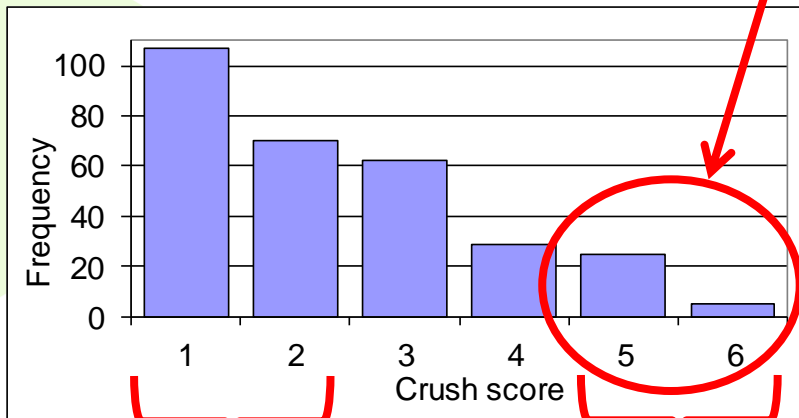


- Cattle temperament – impacts on economically important traits
- Genetic basis to temperament
- Principles of handling system design



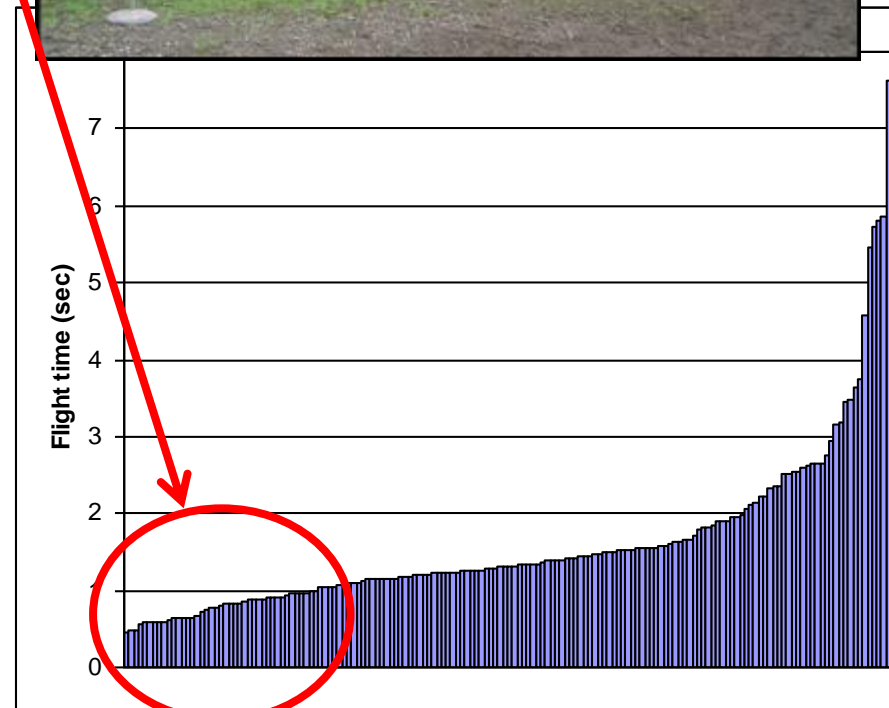


Highly stressed



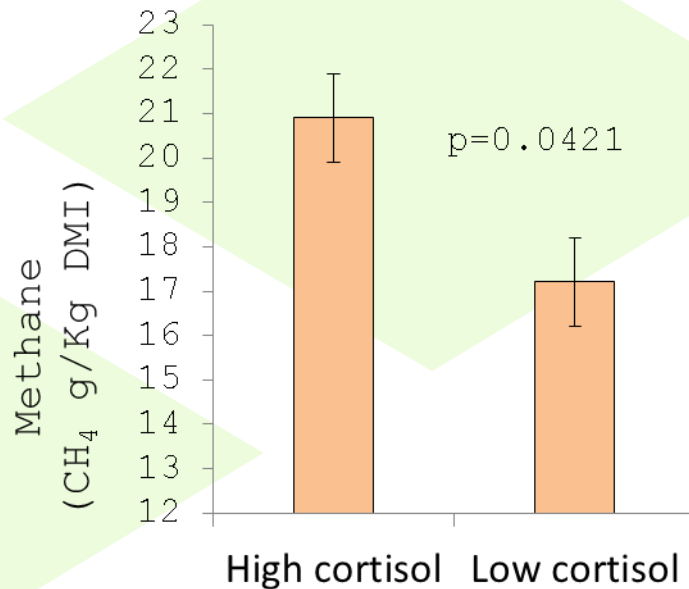
10-20% difference in growth rate from weaning to slaughter

- Weight of evidence is now clear:
 - Poor temperament = poor growth rate



- Less stress responsive cattle emit less methane

- Fattening cattle that are easily stressed are bad news



What about cow temperament?



- Pregnant cows which exited weigh crate quickly had calves with lower birth weight
- Cows which reacted badly to isolation had calves with slower growth to weaning

**Cows that are temperamental
when pregnant are less
productive
And at greater risk of abortion**

Stress during pregnancy



- Stress, disease or under-nutrition of mothers during pregnancy can have important effects on offspring
 - reduced birth weight and vigour
 - increased fearfulness / stress reactivity throughout life
 - impaired immunity and increased susceptibility to disease
 - lower growth rates
 - effects on product quality
- Temperamental cows might damage their unborn calf's development

Are temperamental cows more attentive mothers?



- Cows are consistent over years in their post-calving defensiveness when their calf is tagged
- Pre-calving temperament doesn't predict post-calving defensiveness



- Defensive cows are **NOT** better mothers
 - Don't lick, sniff and suckle calf more
 - Don't direct more attention to it when in pain

So....



- Temperamental fattening cattle:
 - Grow slowly
 - Produce more methane from every kg of food they eat
- Temperamental cows:
 - Produce smaller, slower growing calves
 - Might also affect foetus in other ways too
 - Are not better mothers



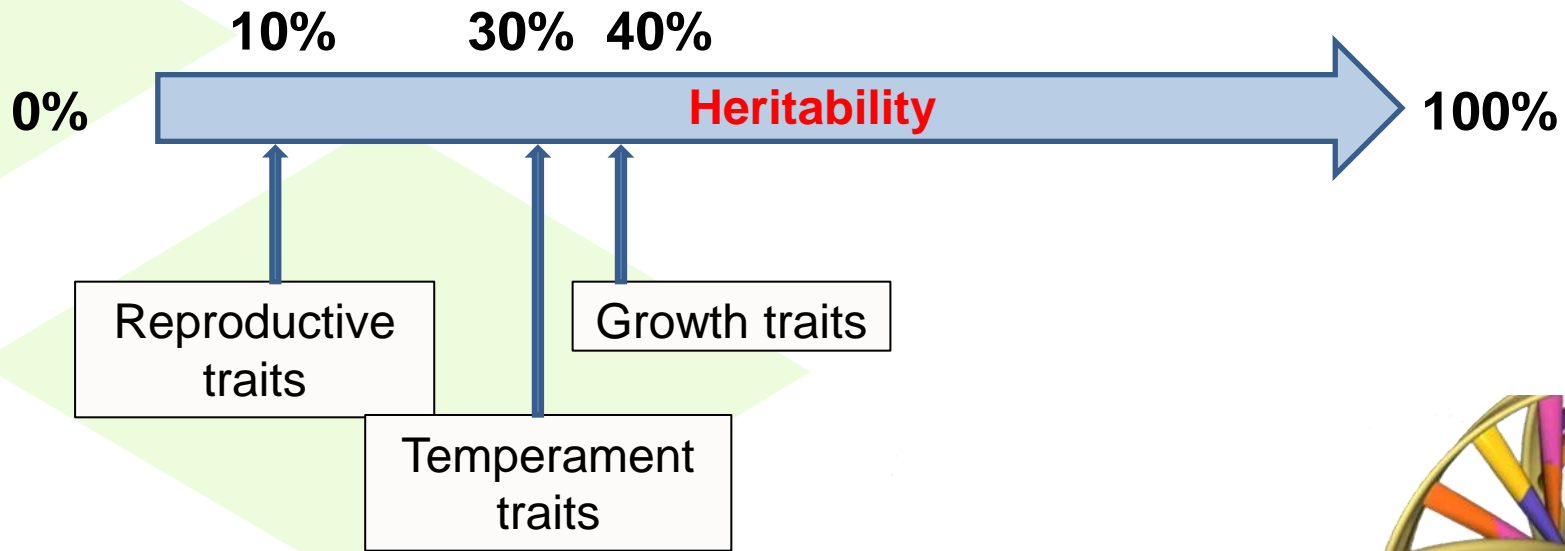
What can we do about poor responses to handling?

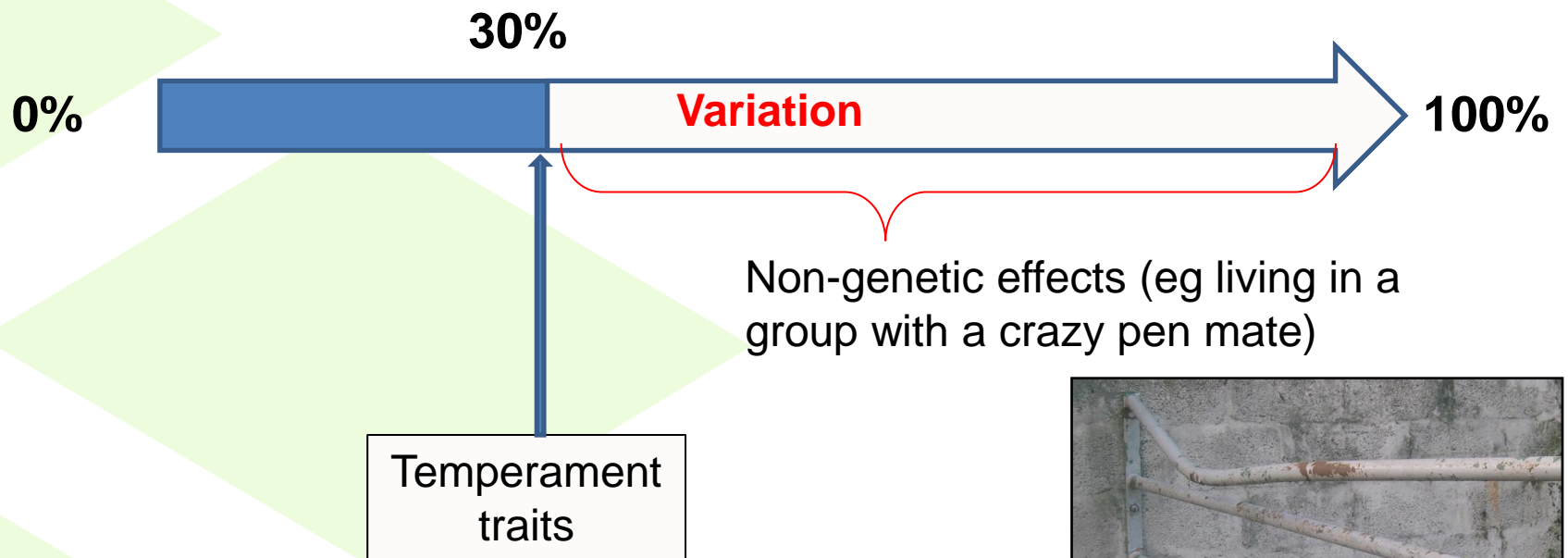


- Change the animals
- Change the handling style
- Change the handling facilities

What can we do about it?

1. Change the animal - Breeding





Implications of this genetic contribution

- Once flighty, always flighty
- Flighty in one situation, flighty in others
- Breed composition
 - But as much variation within as between breeds
- EBVs
- Record temperament and use in breeding decisions



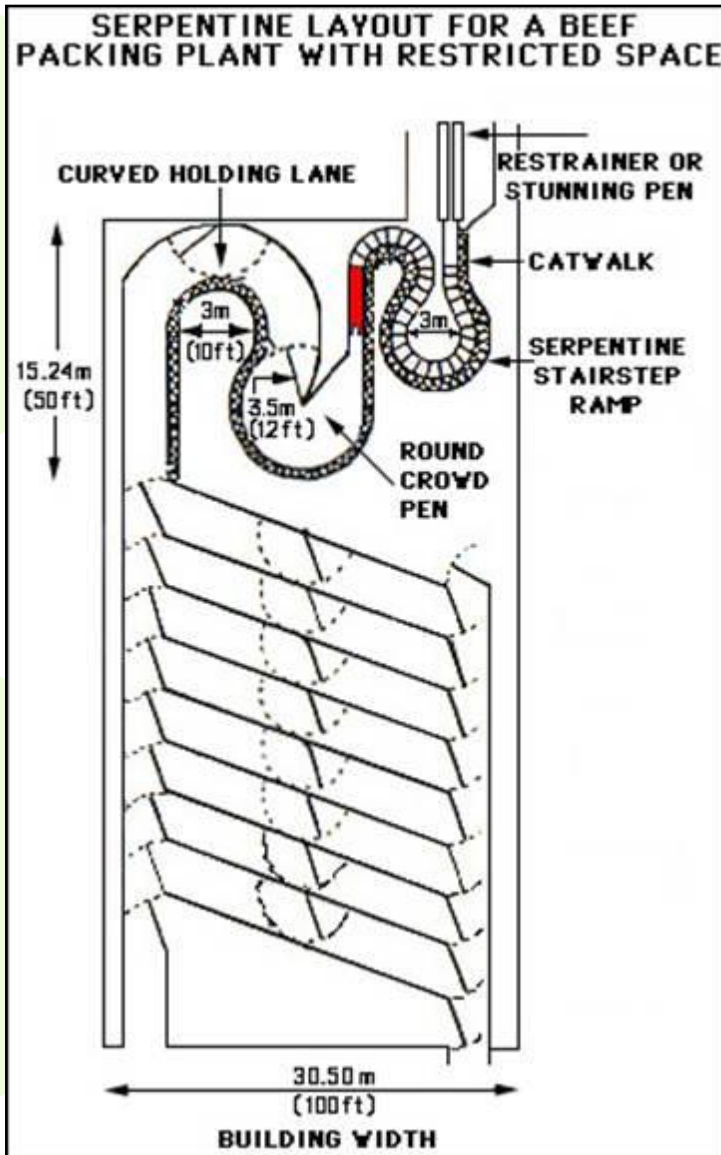
2. Change the handling style



- Consistency in style is key
- Aim is calm, consistent cattle movement
- Better to handle in smaller groups?



3. Change the handling facilities





- Golden rules:
 - Avoid dead-ends
 - Give only one exit
 - Avoid distractions
 - Make use of tendency to circle handler
 - Return animals to point of origin
 - Calm, quiet with consistent lighting
- No contact with animals should be necessary



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Walk through a system from the animal's perspective.
Disturbances, choices of route and apparent dead-ends become more obvious.

A good system in a small space



- Improving handling doesn't have to cost a lot
 - ‘What do cattle find frightening?’



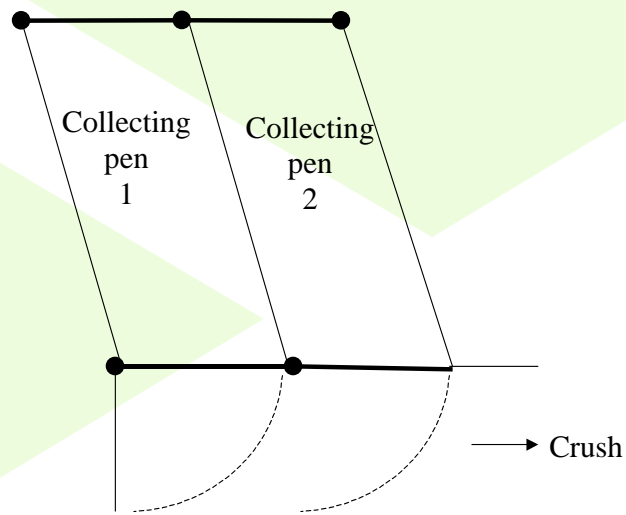
- Fearful of:
 - New situations
 - Loud noises
 - Sudden movements
 - Falling
 - Dead ends





Collecting pens

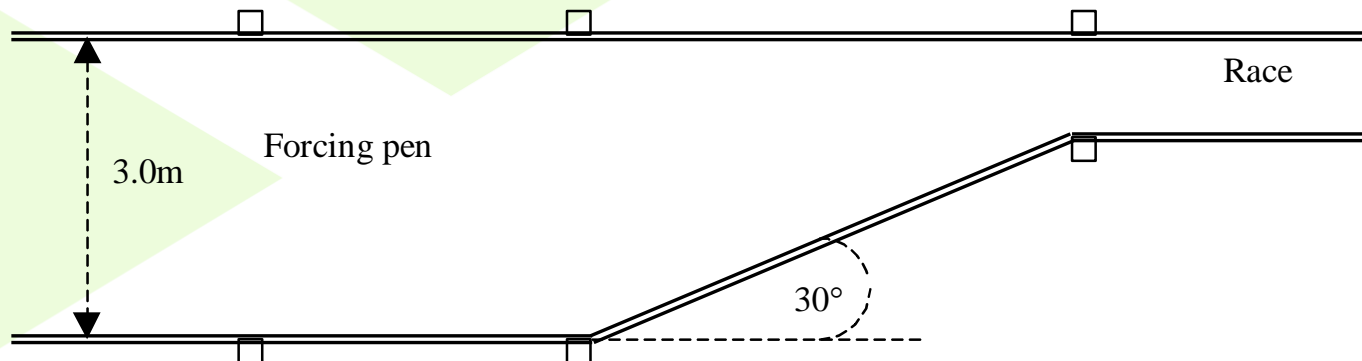
- Collecting pens should ideally be:
 - Long and narrow rather than square
 - 3.5 - 4.0m wide
 - Set at greater than 90° to the exit lane.
 - Appears less like a dead-end



Forcing pen



- Can be curved or straight
 - Straight pens should funnel from only one side
 - Curved pens reduce bottle-necking: Together with a curved race they can reduce movement time by 50%
 - For any design of pen, use a sheeted forcing gate



Forcing pen

- High solid sides minimise visual disturbance
- Use a 3m gate without a large gap at the base



Sliding gate – upper half open

Solid forcing gate – small gap at base

Stokbord® is made from recycled plastics and does not rot or crack

Race



Animals move through a curved race as each curve offers a potential exit.



The crush is hidden until the last moment when the weight of animals behind maintains forward movement

'S' shaped race

Designed to fit inside a long narrow covered space



Straight section – max 8m

Catwalk

Half sheeted gate

Sheeted sides – prevents sight of crush and reduces shadows



Crush



SRUC

Avoid noisy crushes or use rubber



Rear operated crushes place the handler in a better position



Sorting/shedding gates



Long and un-sheeted

Loading ramp

Steps better than a slope

Maximum angle 15°

1.5m horizontal docking area

Grooved for non slip



Summary



- Calm handling requires:
 - cattle with the right personalities
 - good handling style and systems
- It doesn't have to cost a fortune
- Cattle that get stressed during handling are dangerous, slower growing, produce smaller calves and more methane
- **Please collect a technical note**



Acknowledgements



- Scottish Government
- EU Marie Curie
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- QMS