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Don't fence me in? *The welfare of cattle in feedlots*

Rebecca Doyle

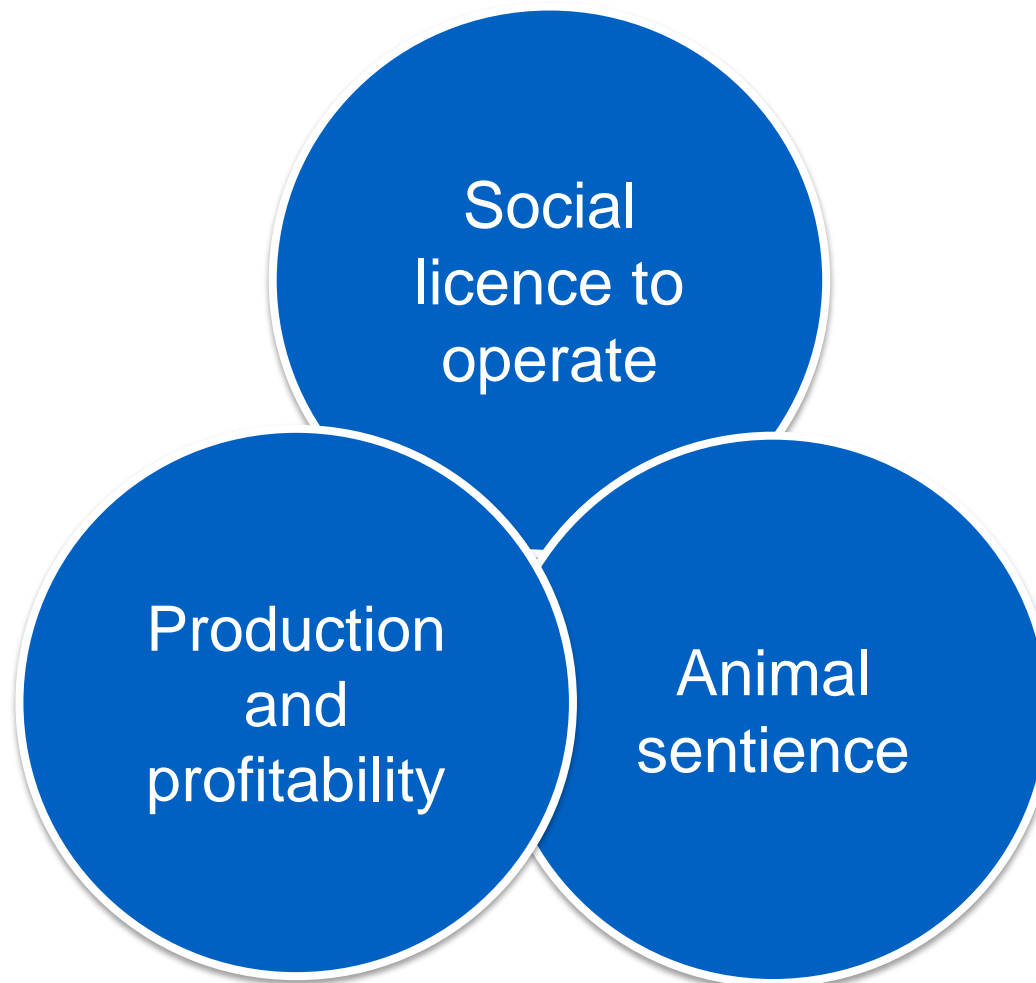


Why is cattle welfare important?



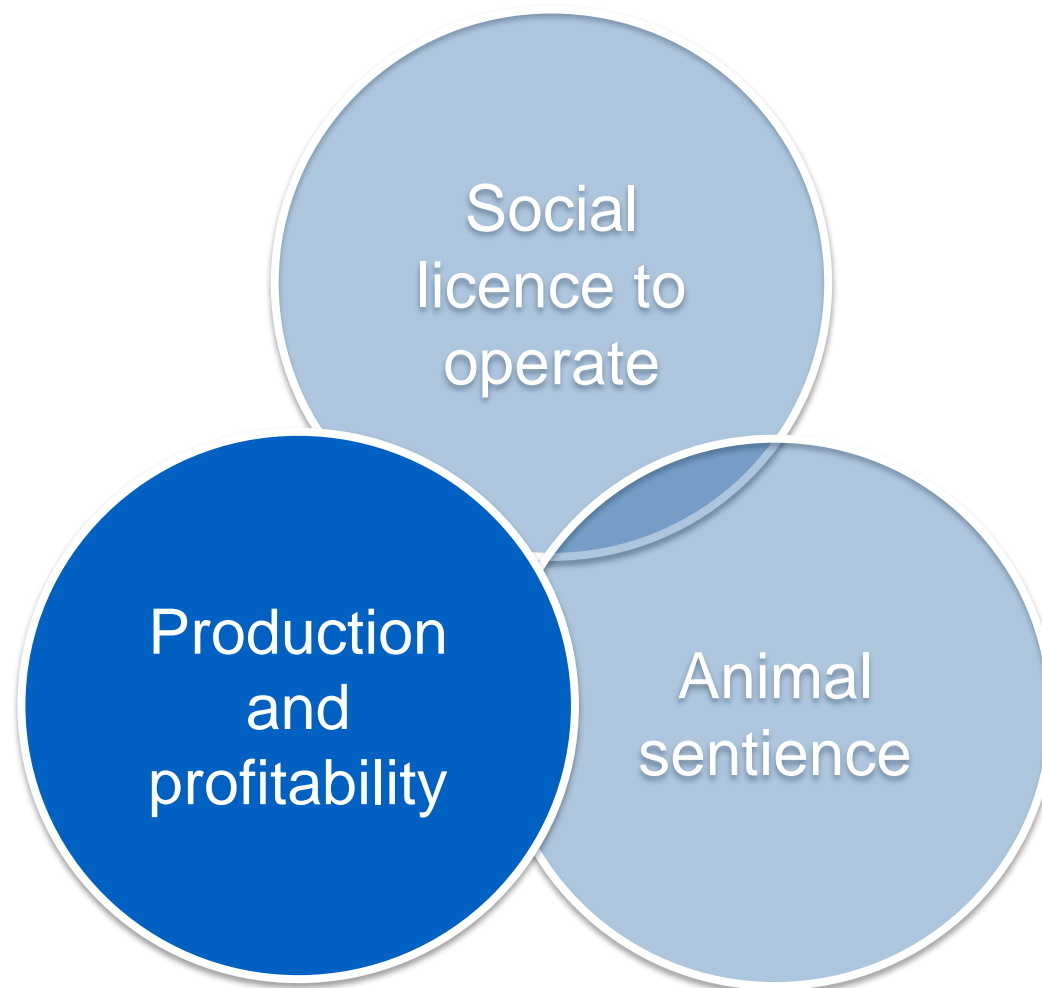


Why is cattle welfare important?



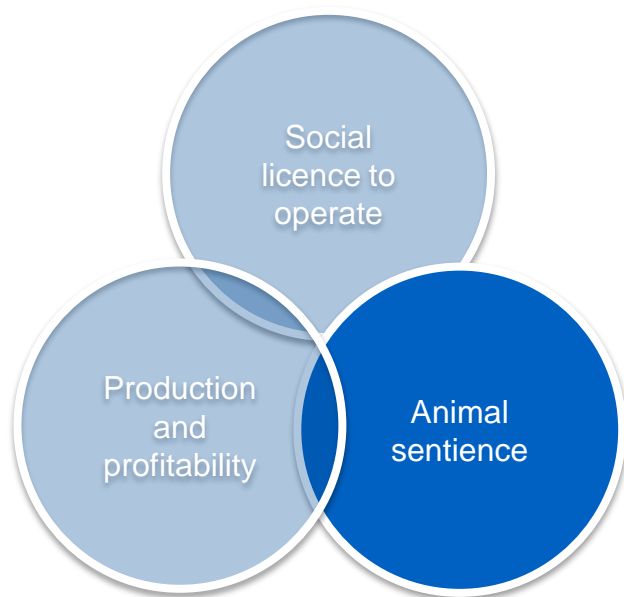


Why is cattle welfare important?





Why is cattle welfare important?



- ◆ Adjusting to the feedlot environment
- ◆ Human – animal interactions
- ◆ Cattle perception of their environment?



Adjusting to the feedlot environment



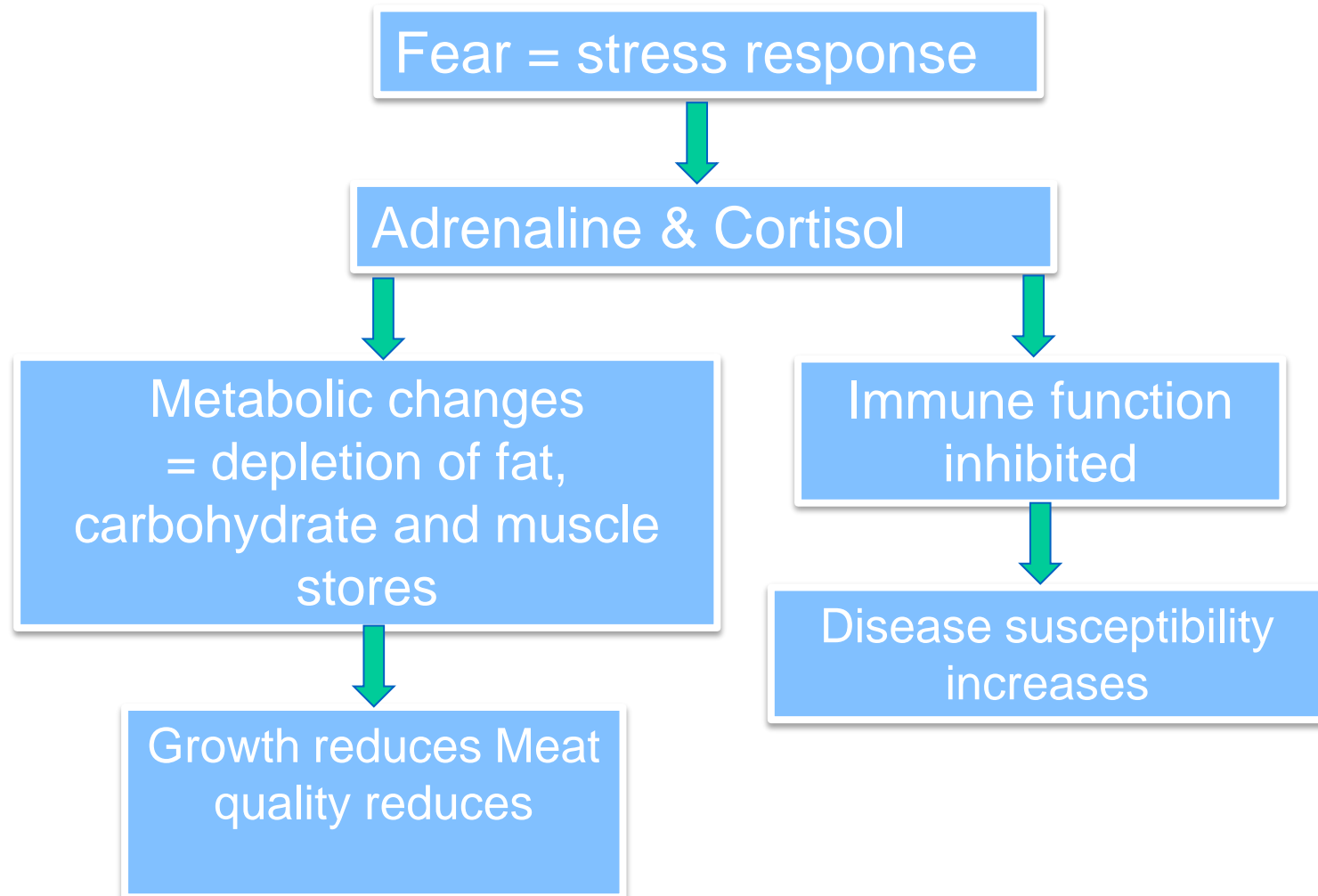
The novelty paradox

<http://www.fanpop.com/clubs/random/images/18445120/title/curious-cow-photo>

https://parasol.tamu.edu/dsmft/research/flock/naturally_inspired/



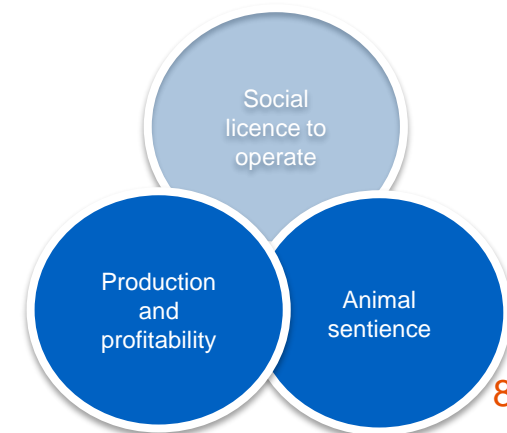
Adjusting to the feedlot environment





Adjusting to the feedlot environment

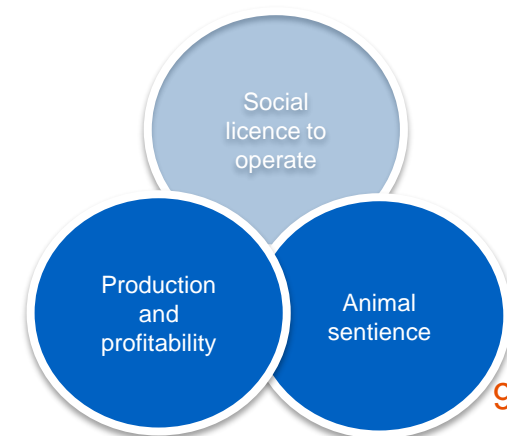
- ◆ Temperament: *A set of relatively stable and genetically based characteristics that reflect internal nature and reaction to external stimuli*
- ◆ Temperament will influence how an animal responds to the feedlot environment
 - Flight speed
 - Chute score
 - Restraint test
 - Hair whorls





Adjusting to the feedlot environment

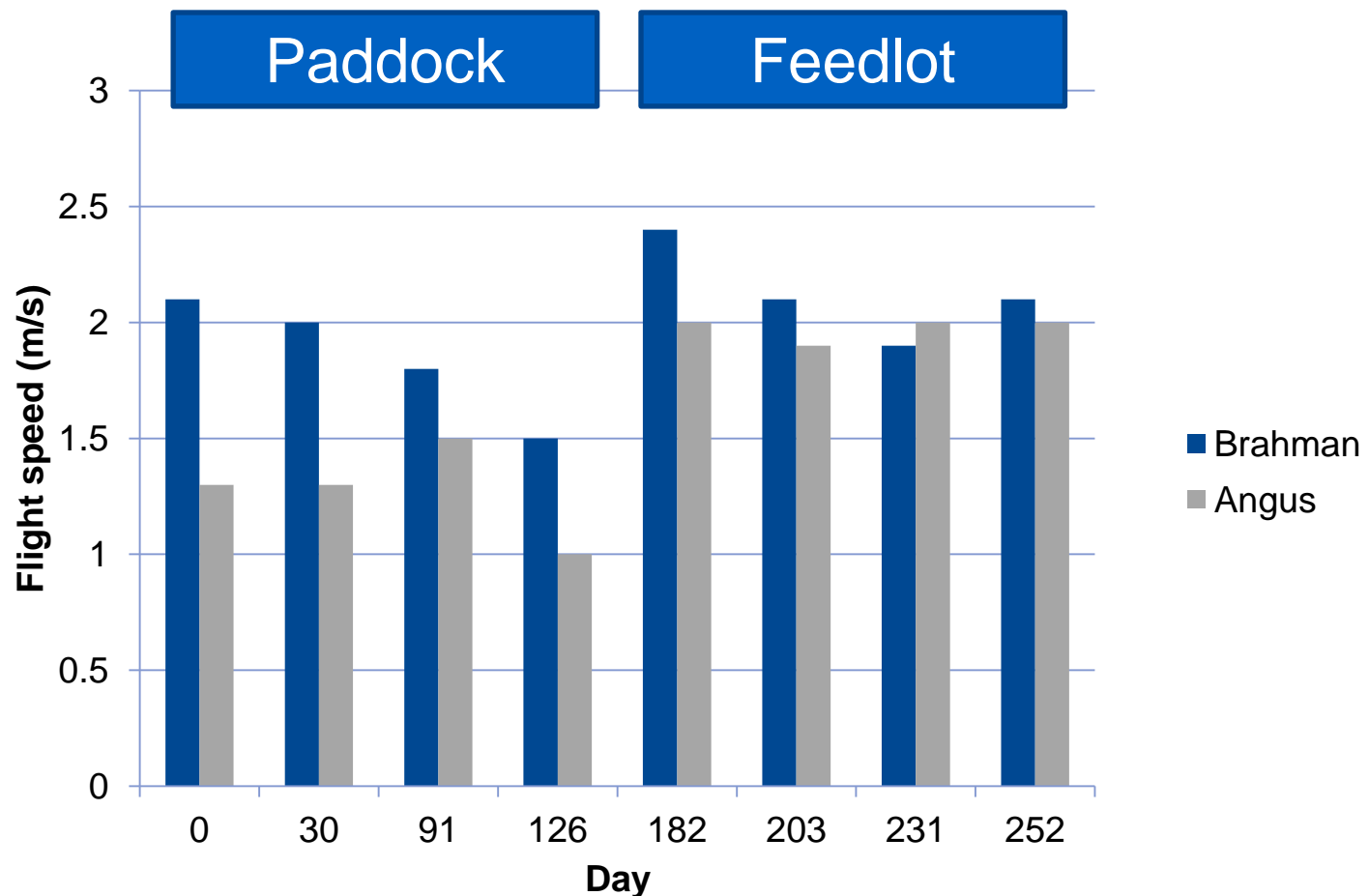
- ◆ Calm cattle have better FCR and ADG than excitable cattle
- ◆ Excitable animals tend to have smaller carcasses, less fat, darker meat, increased muscle pH





Adjusting to the feedlot environment

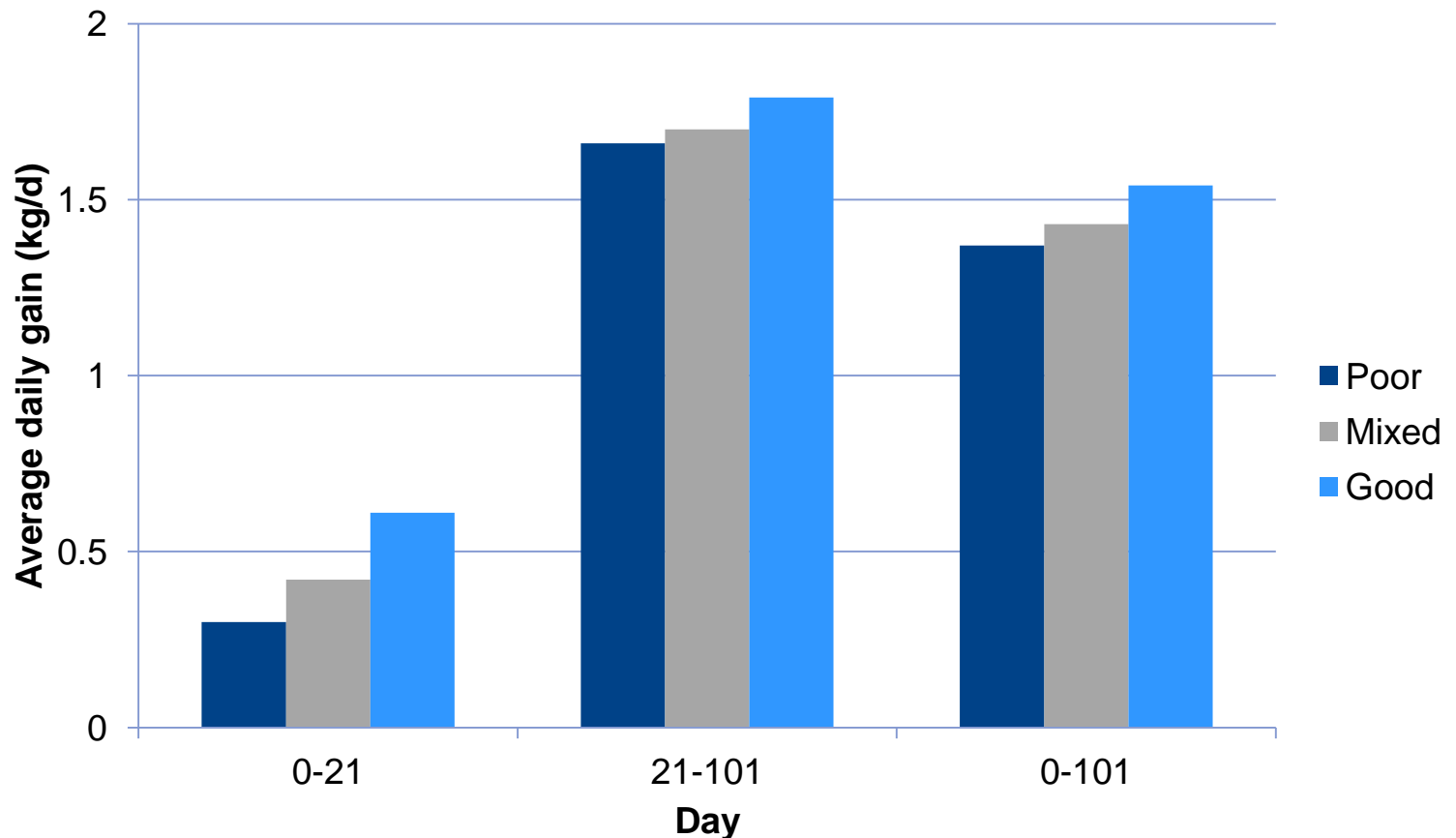
- ◆ Cafe et al. (2011) *Journal of Animal Science*





Adjusting to the feedlot environment

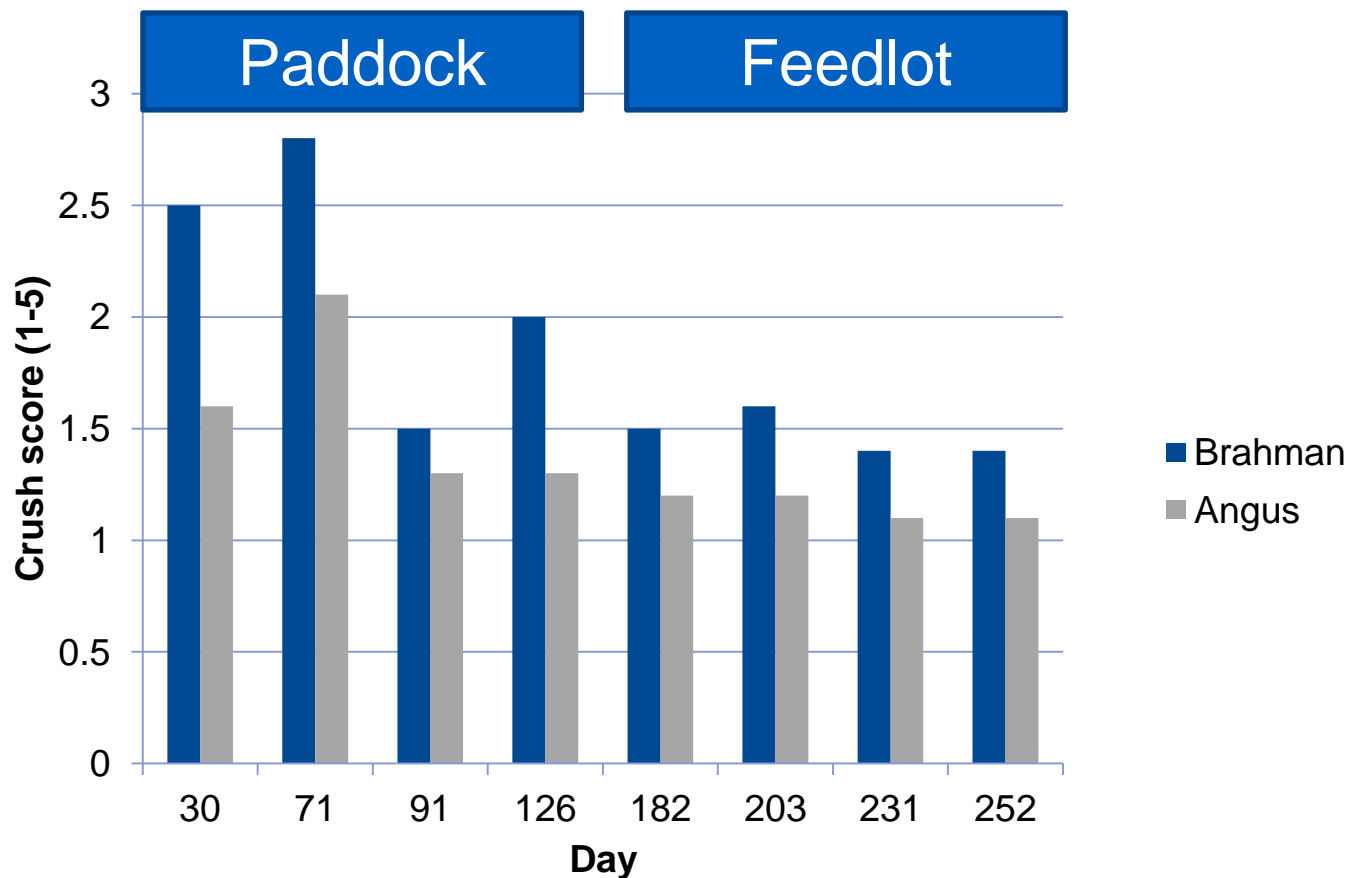
- ◆ Petherick et al. (2002) *Australian Journal of Experimental Agriculture*





Adjusting to the feedlot environment

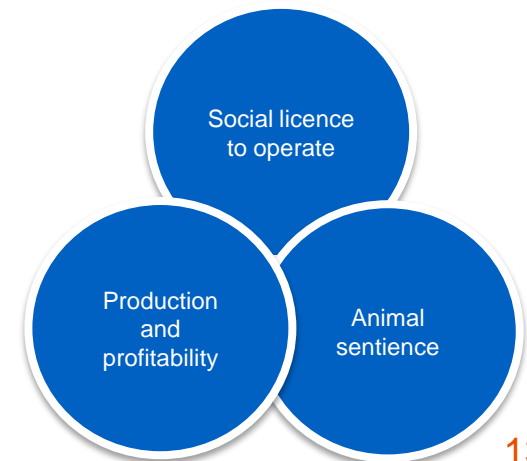
- ◆ Cafe et al. (2011) *Journal of Animal Science*





Human - animal interactions

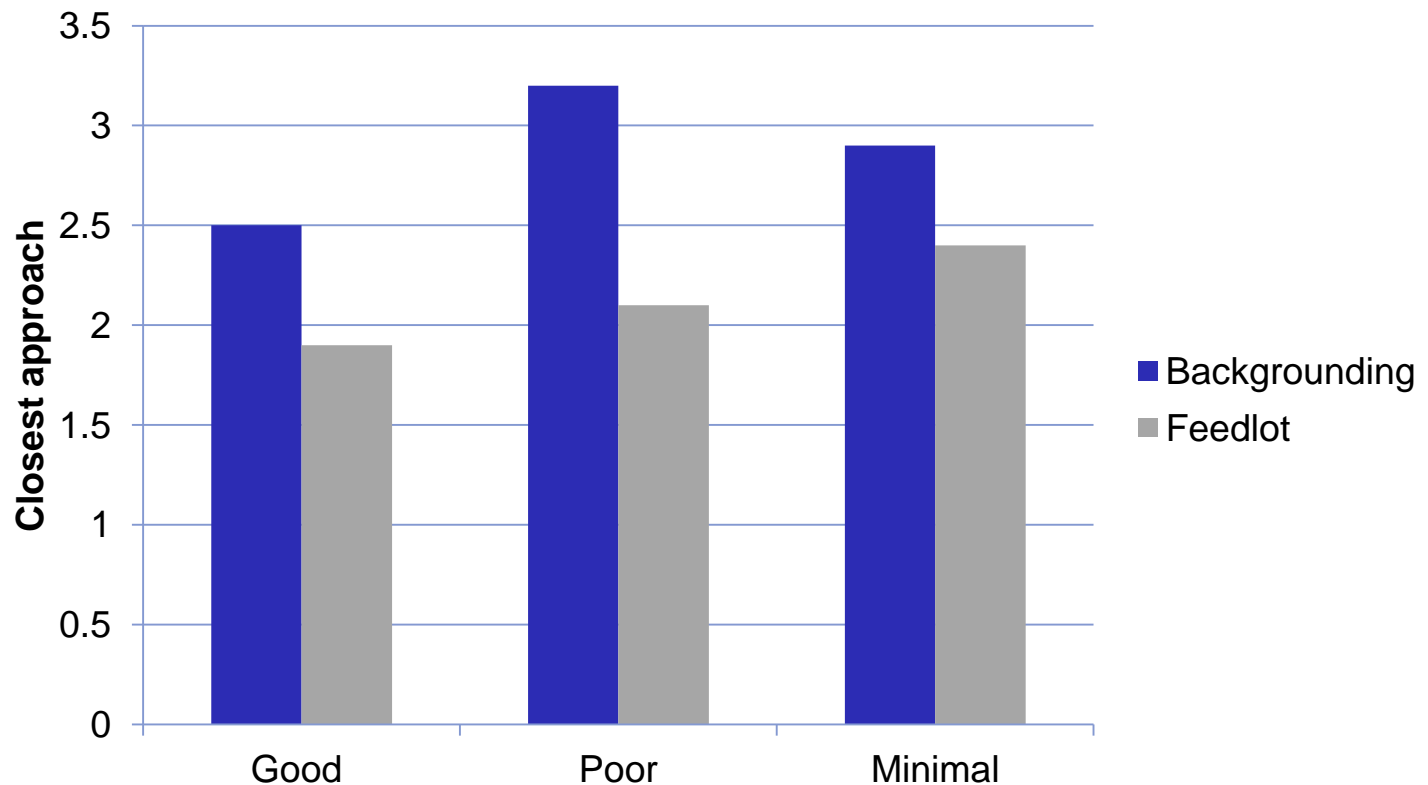
- ◆ How we handle animals affects their performance and welfare
- ◆ Flight zone as a measure of welfare





Human - animal interactions

- ◆ Petherick et al. (2009) *Applied Animal Behaviour Science*





Human - animal interactions

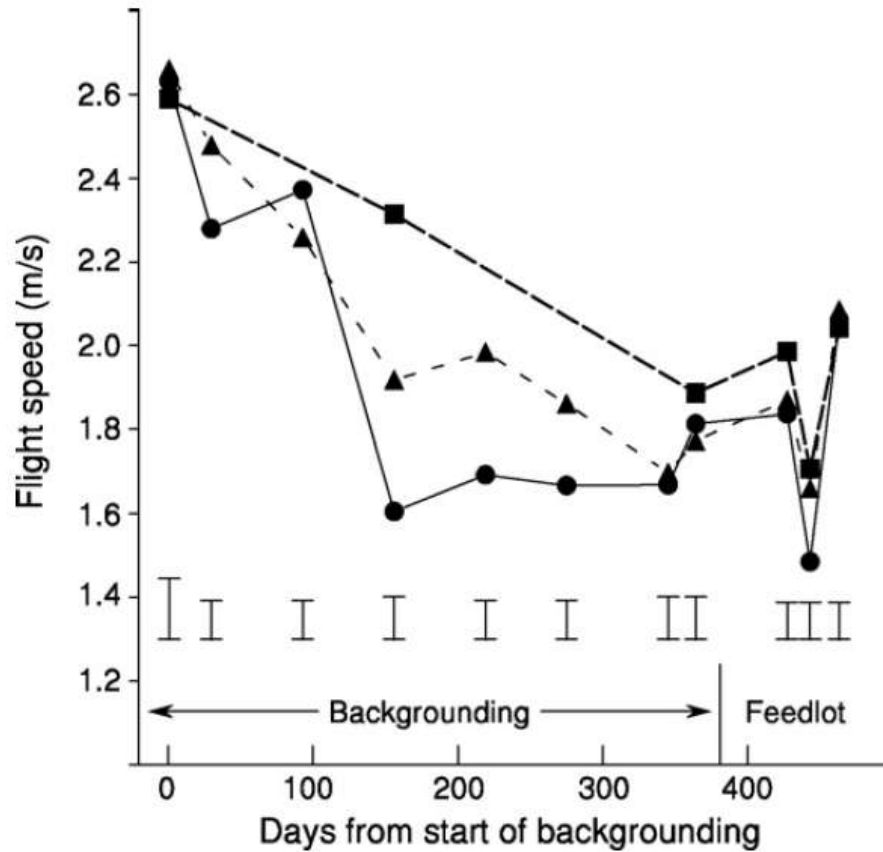
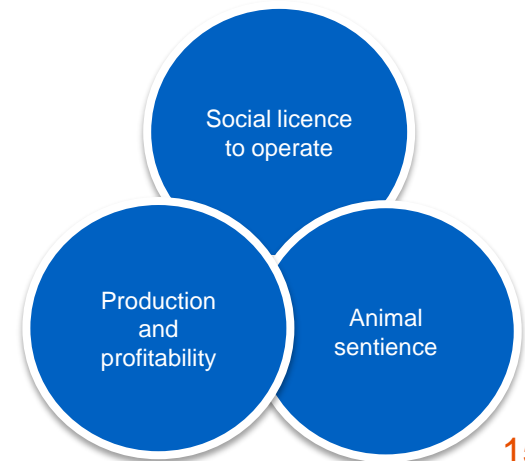


Fig. 1. Changes in flight speed (m/s) of cattle for the Good (● solid line), Poor (▲ dotted line) and Minimal (■ dashed line) handling/yarding treatments. SEs of treatment means are indicated as error bars at each time.





Cattle perception of their environment?

- ◆ How important are resources/environments to animals?



Social licence
to operate

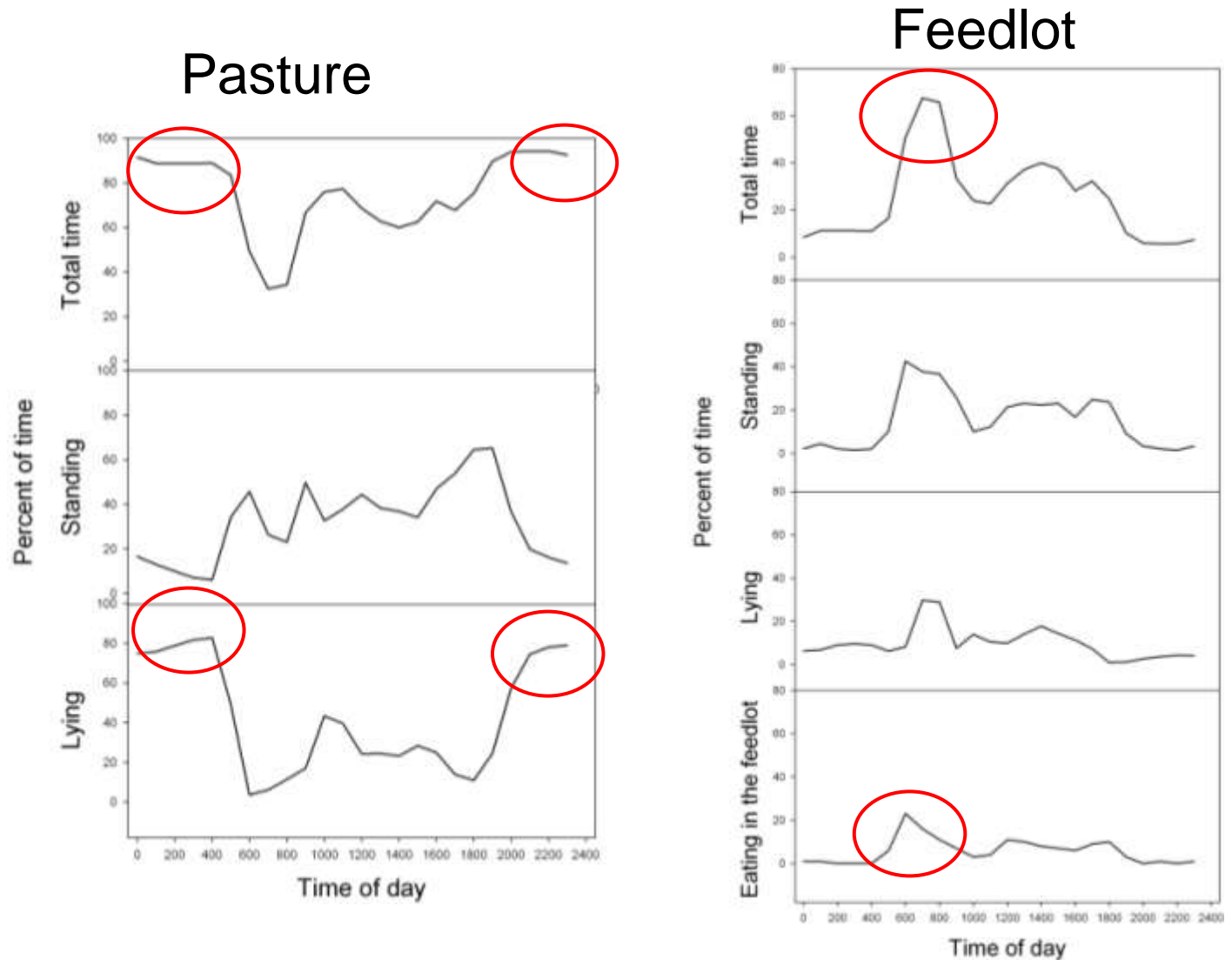
Production
and
profitability

Animal
sentience





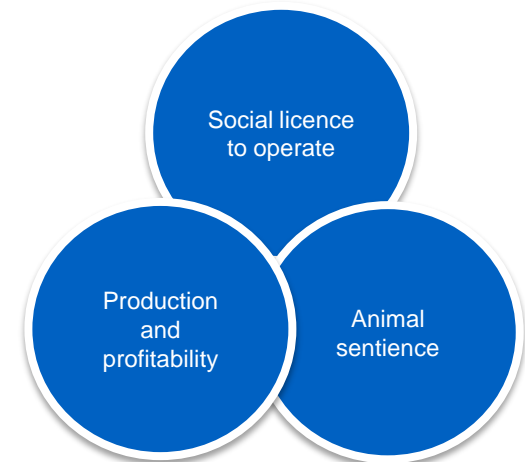
- ◆ Lee et al. (2013) *Applied Animal Behaviour Science*





Conclusions

- ◆ Clear evidence of temperament influencing production in feedlots, strong effect of breed
- ◆ Human-animal relationships are crucial to cattle welfare, but more research is needed for effects on production to be clearly elucidated
- ◆ Proactively addressing cattle welfare will benefit cattle, production and industry sustainability





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