IMPROVING HOUSING FOR COMFORT AND HEALTH Hugh McClymont and Colin Mason SAC Crichton Royal Farm, Dumfries

Farm Health Planning - Coordinated by the Cattle Health and Welfare Group

Background farm information

- Main Unit 265 cows milked 3 x day
- 2 Systems (100 cows Home Grown Feeds, 100 cows byproduct Feeds, housed 365 days)
- 300 young stock at Main unit, housed until they are in calf
- Acrehead unit 230 cows milked 3 x day, high yielders housed permanently
- All year round calving Whole farm
- 310 ha 0-40m above sea level, mainly Sandy Loams
- NVZ
- Grass, Maize , Wheat, Red Clover, Lucerne, Spring Beans
- Farm Staff 6 permanent, 7 contract



Background

For a range of reasons UK dairy cows are spending more time housed.

Question1: This summer how many of you have been forced to house your cows earlier (fully or in part) than you had planned?

 HAVE HOUSED EARLIER THAN PLANNED
 HAVE BEEN ABLE TO STICK TO YOUR ORIGINAL PLAN

Background

- For a range of reasons UK dairy cows are spending more time housed.
- The housing system can supply the cow's needs for welfare, health and production.
- The vet's role is to inform and challenge the farmer to make necessary building changes and highlight the benefits that would come from that
- The farmer has to balance this with what is necessary and cost effective for his business
- Can you predict the benefit and how much information do you need?

Reasons to upgrade buildings vary

- Essential maintenance to n
- In response to identified h
- Herd expansion and / or e rate
- Grants available
- Tweaks with the aim of ma and production
- Public perception of the in
- Pride in the farm and a decows



Access to feed

- Significant reason for poor cow performance
- 70cm / cow required as a minimum
- Webbing strap system simple and has worked well
- 1kg DM increase in intakes compared to other feed barrier systems on the farm
- Smoother floor could be another improvement



Water availability







Water intakes range from 50 – 130 litres / day

Tipper troughs available Not deep so don't stagnate

Improved water quality

Reduced abortion risk

Cleaner cut through passages, reduce digital dermatitis risk

Existing cubicle configuration

- 2 row head to head system
- Comfort mattresses used throughout
- Dried sawdust used for bedding 3 times / week
- Occupancy rates good >90%
- Mobility scores, <10% score 2 and <1% score
- Can this be improved?



Good mobility	0	Walks with even weight bearing	No action namedeal
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Question 2: There should be 10% more cubicles than cows. How many farmers are achieving this?



New cubicles, higher neck rails, allow front and side lunging and position cows using a brisket board





Take a cow's eye view





Improving cubicle comfort

Increasing neck rail height encourages cows to lie down

Improved rumination, 30 minutes required / Kg DM intake (10 hours), acidosis risk

Reduces lameness risk further

Average lameness cost = £323







Positioning of cows using a brisket board, taking into account the range of cow sizes, reduce the chances of soiling the back of the cubicle beds, soiling noted in no more than 1/10 cubicles





Ventilation varies within the shed

- Air quality variable within the shed
- Adult cow pneumonia cases very low
- No herd IBR vaccination used
- Clinical mastitis rate = 30 cases / 100 cows / year
- Toxic type environmental mastitis common

















Pros and cons of increasing inlet ventilation with a wind break and opening the ridge

- Air quality could be improved
- Cows produce 40 litres of slurry and 10 litres of moist air every day
- Moisture on the beds is an issue
- Clinical mastitis rate could be improved
- Cost of clinical mastitis
 / year = £2700 for cases
 and £2500 in lost milk
 per 100 cows

Concerns over moisture getting in to the shed through the open sides

- Concerns about moisture getting into the shed from the air outlet
- Concerns about draughts at cow level
- Costs of the changes

Question 3: What would you do?

- Increase air inlets area
- Open the ridge
- Both
- Nothing

Conclusions

- The housed environment has a significant impact on the health and welfare of the cattle.
- Vets are not builders or engineers but can highlight areas for improvement within the housing system
- No decision is straightforward and this presentation has highlighted some of the dialogues that have occurred
- Farmers need to consider and prioritise the various options in the light of the overall farm business.

Ackowledgements

