



PANELIST

Anna Concollato



FACCO

POULTRY EQUIPMENT

TRAINING PULLETS

for flying and jumping in a cage-free system

SYSTEM OPENING PROCEDURE

DAY 8: W-80

- Cage-free need to be moved to cage system
- Birds need to be allowed to move in a three-dimensional space
- In 3 tier system
 - 3 tiers → open the 1st tier, after 3 days open the 2nd tier and the 3rd tier, open the whole barn in 6 days
 - 2 tiers → open the 1st tier, after 3 days open the other side of the 2nd tier, open the whole barn in 9 days
- Generally we open the tiers at once



SEQUENTIAL SWITCHING ON AND OFF OF THE LIGHTS

- A sequential switching on and off of the light system is fundamental to
 - help birds anticipate the moment of the sunrise and sunset
 - Give birds the necessary time to prepare themselves for the oncoming day or night
- SUNRISE:
 1. System lights
 2. Aisle lights
 3. Under the system lights
- SUNSET:
 1. Under the system lights
 2. Aisle lights
 3. System lights

RAMPS

- Ramps
 - speed up the flying and jumping learning process
 - help birds to easily reach each cage level
- Gradually remove them when all the birds have learnt to go back in the system when the lights turn off



RAMPS

- According to the breed, pullets can take more (brown birds) or less (white birds) time to use the ramps-perches and thus learn to fly and jump
- Generally speaking, pullets can take up to 3-4 days to learn to use ramps

3rd day opening (8 WOA)



3rd day opening (7 WOA)



CORNERS

- Avoid corners close to the gates of the service ends of the house, to prevent smothering because of the piling when opening the system
- Piling behaviour can vary according to different breed



PARTNERS NOT JUST EQUIPMENT SUPPLYERS



FACCO THANK YOU

POULTRY EQUIPMENT





PANELIST

William Huelsewiesche



**Farmer
Automatic**
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Other concerns and suggestions in cage-free pullet rearing



Speaker: William Grosse Huelsewiesche



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Traditional Pullet Cages



Cage-free Aviary Pullet System





Concerns and considerations in cage-free rearing

- Feed
- Water
- Equipment
- Lighting
- Environment
- Vaccinations
- Management



Feed and Water issues will degrade flock uniformity ...among other concerns

- **Lack of food source awareness**
 - ✓ Due to paper placement
 - ✓ Due to low feed levels in trough

- **Water provisions issues**
 - ✓ Due to placement
 - ✓ Due to mechanical configuration



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Equipment design and layout issues

- Containment
- Feeding
- Movement
- Familiarity with laying system
- Well-being



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Lighting design, layout, and programming

- Dimmable
- Timing
- Intensity
- Location



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Environmental issues for cage-free

- Adequate, uniform heating
- Air quality in winter
- Litter quality



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Thoughtful vaccination procedures

- Age and size considerations
- Containment or blockades for processing



Management ❖ Observe and React

- Monitor feeding habits, movement, pecking order, environmental concerns
- Change variables to better livelihood (lighting, temperature, feed, system configurations)

Remember

- No two flocks are alike
- Anything can go wrong



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Thank you





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Bill Snow

PROBLEMS WITH HEN MIGRATION AND CROWDING

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- Increased competition for feed, water, nesting, and roosting
- Increased stress
- Increased aggression
- Movement of the flock decreases
- Litter quality is affected

LIGHTING

- Lighting should be uniform
- Bring lights on quickly in the morning
- All lights should be dimmable
- Warm light



Big Dutchman.
Innovation Breeds Success

FEEDING

- First feeding should be right when the lighting comes on



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WALKING THE FLOCK

- Walk your flock when lights come on
- Walk the flock several times per day
- Random



Big Dutchman.
Innovation Breeds Success

“FINDING BIRDS TO CULL IS BETTER THAN FINDING MORTALITY.”

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bsnow@bigdutchmanusa.com

574-265-3241





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Maikel Veron



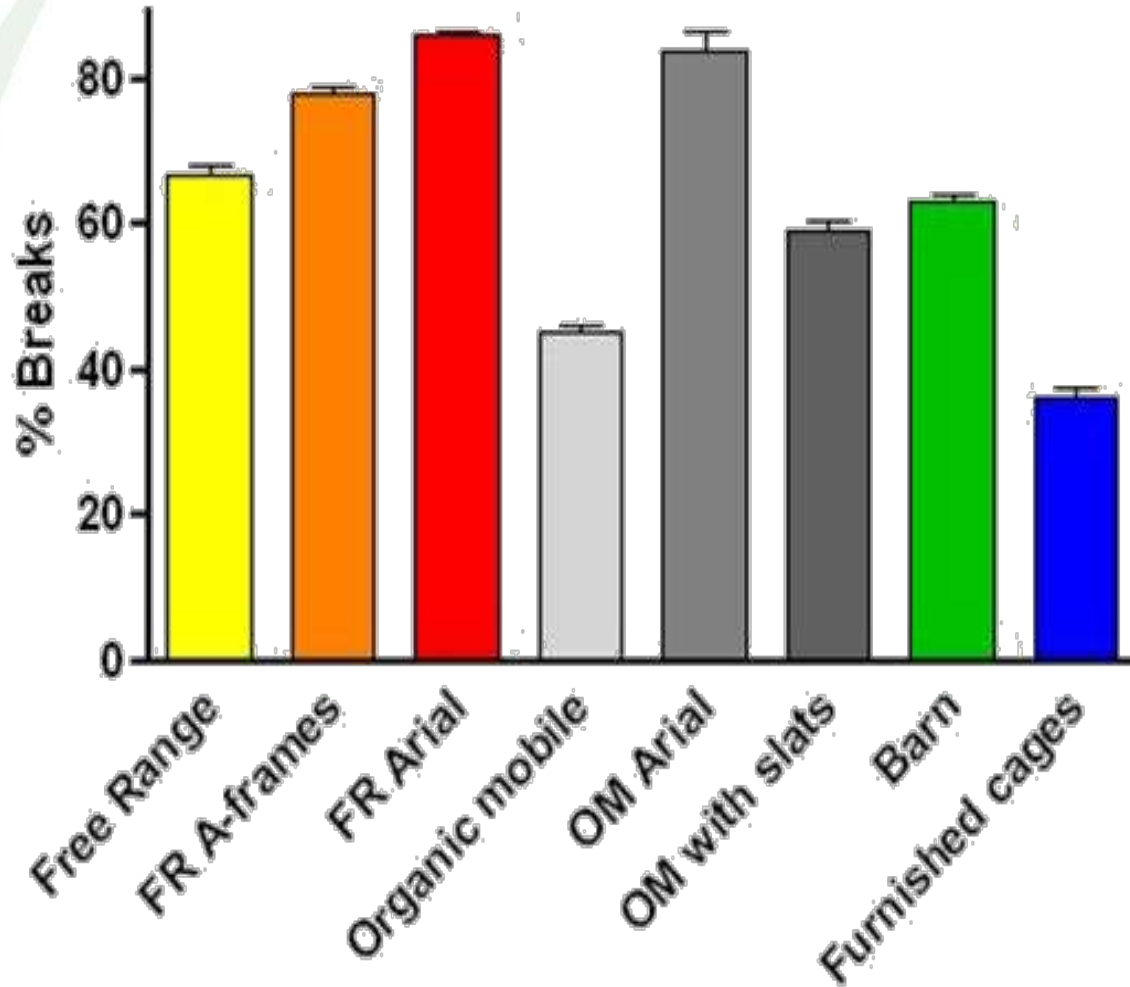
Bird movement: a means to help alleviate keel bone damage.

Maikel Veron - Vencomatic

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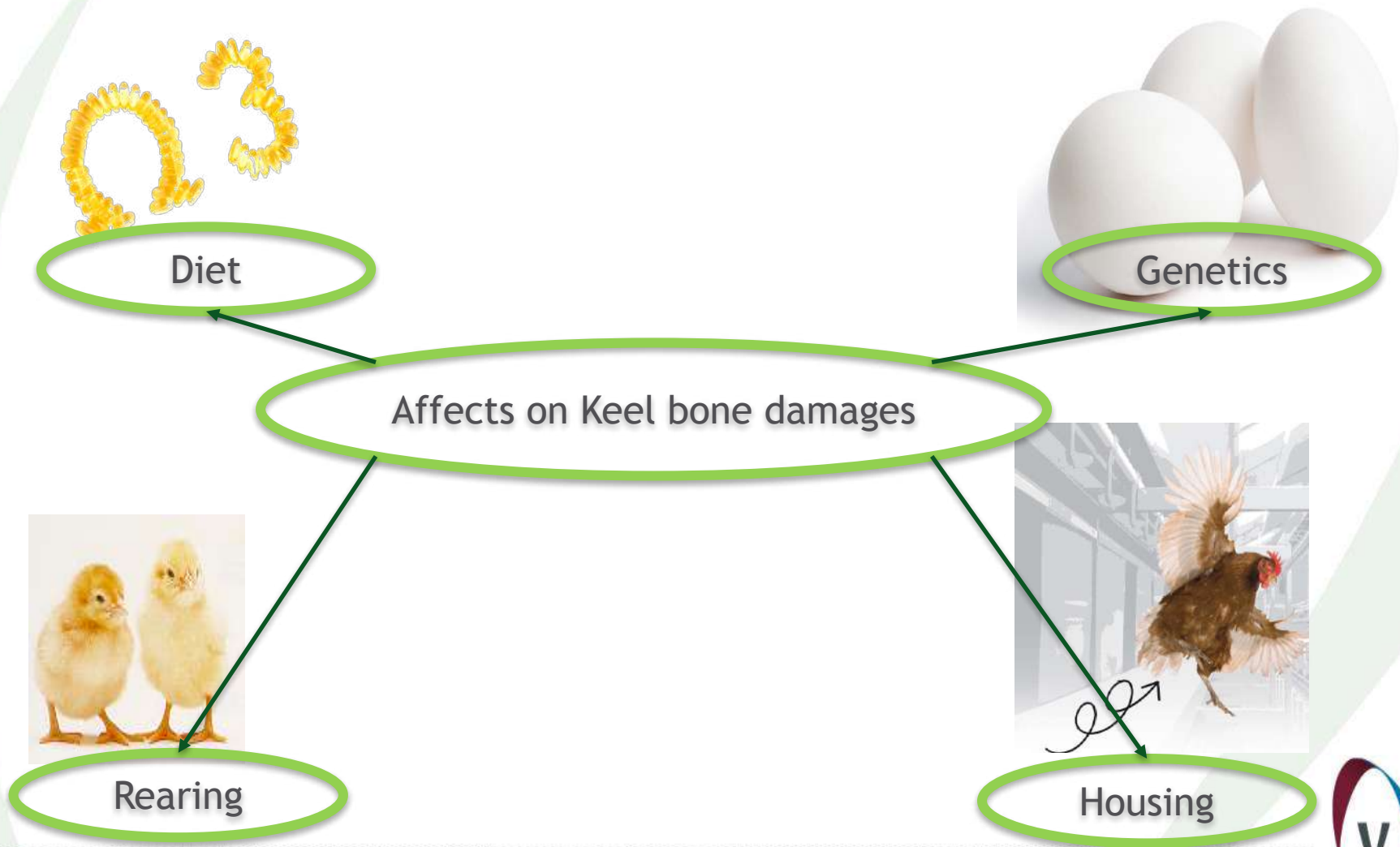
Occurance Keelbone damages?



Source: Influence of housing system and design on Tarlton and C. J. Nicol L. J. Wilkins, J. L. McKinstry, N. C. Avery, T. G. Knowles, S. N. Brown, J. doi: 10.1136/vr.d4831 2011 *Veterinary Record* 2011 169: 414 originally published online August 22,



What is influencing Keelbone damage?



What could be done already?



How could blind chicken navigate?



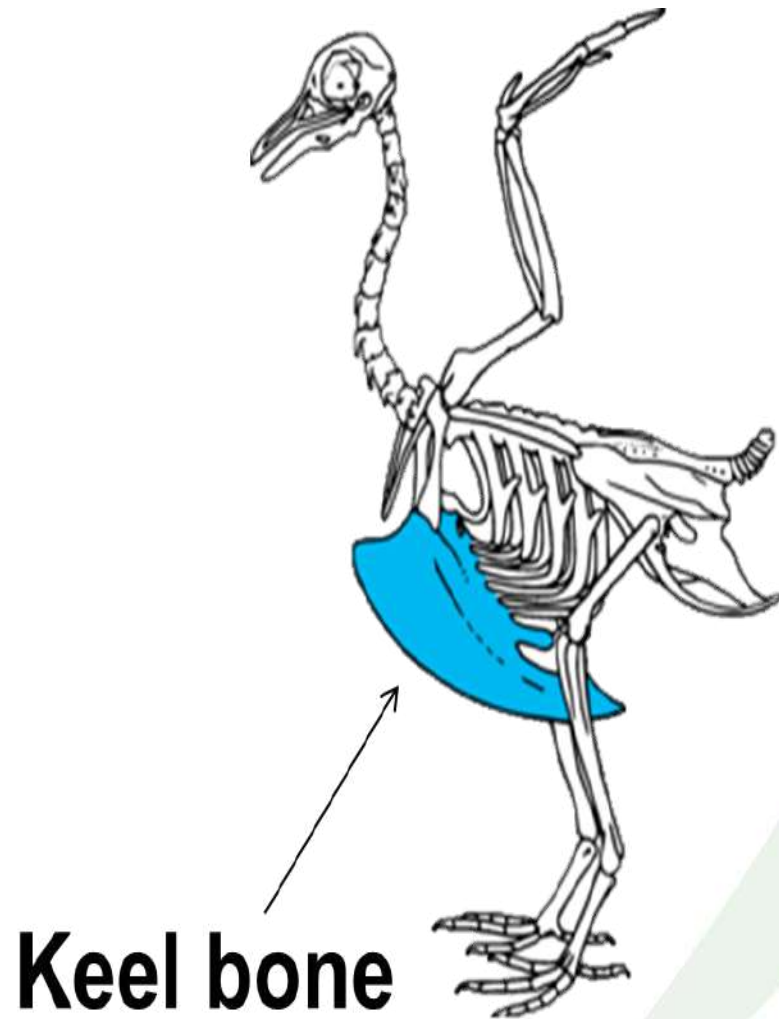
How could untrained birds navigate?

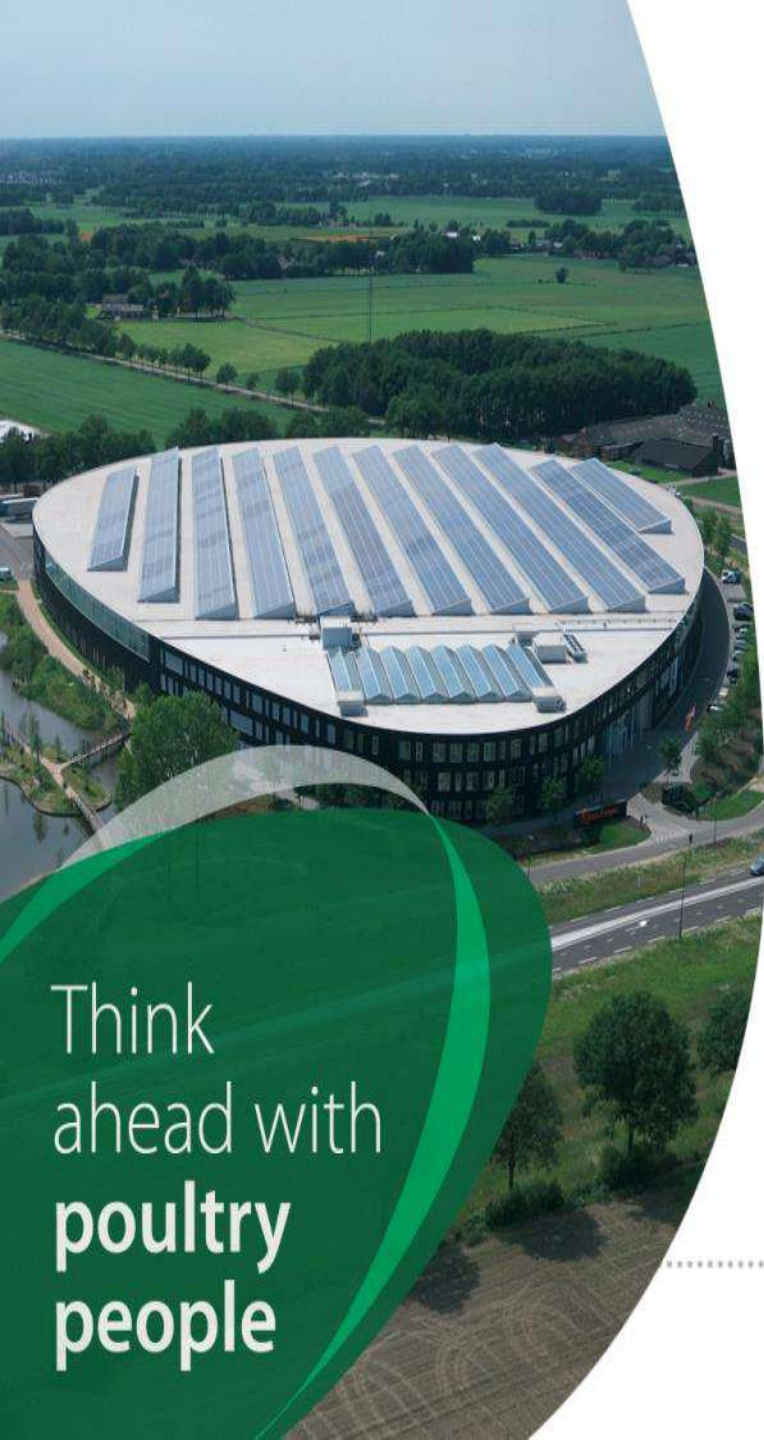
What we do as Vencomatic on this topic?



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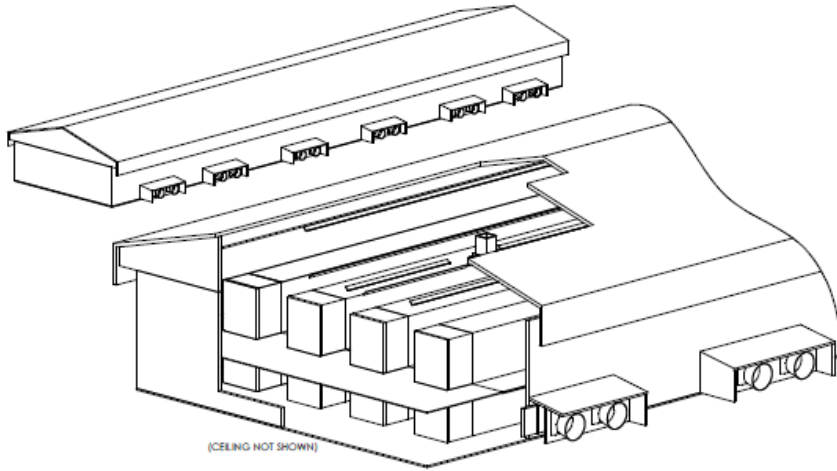
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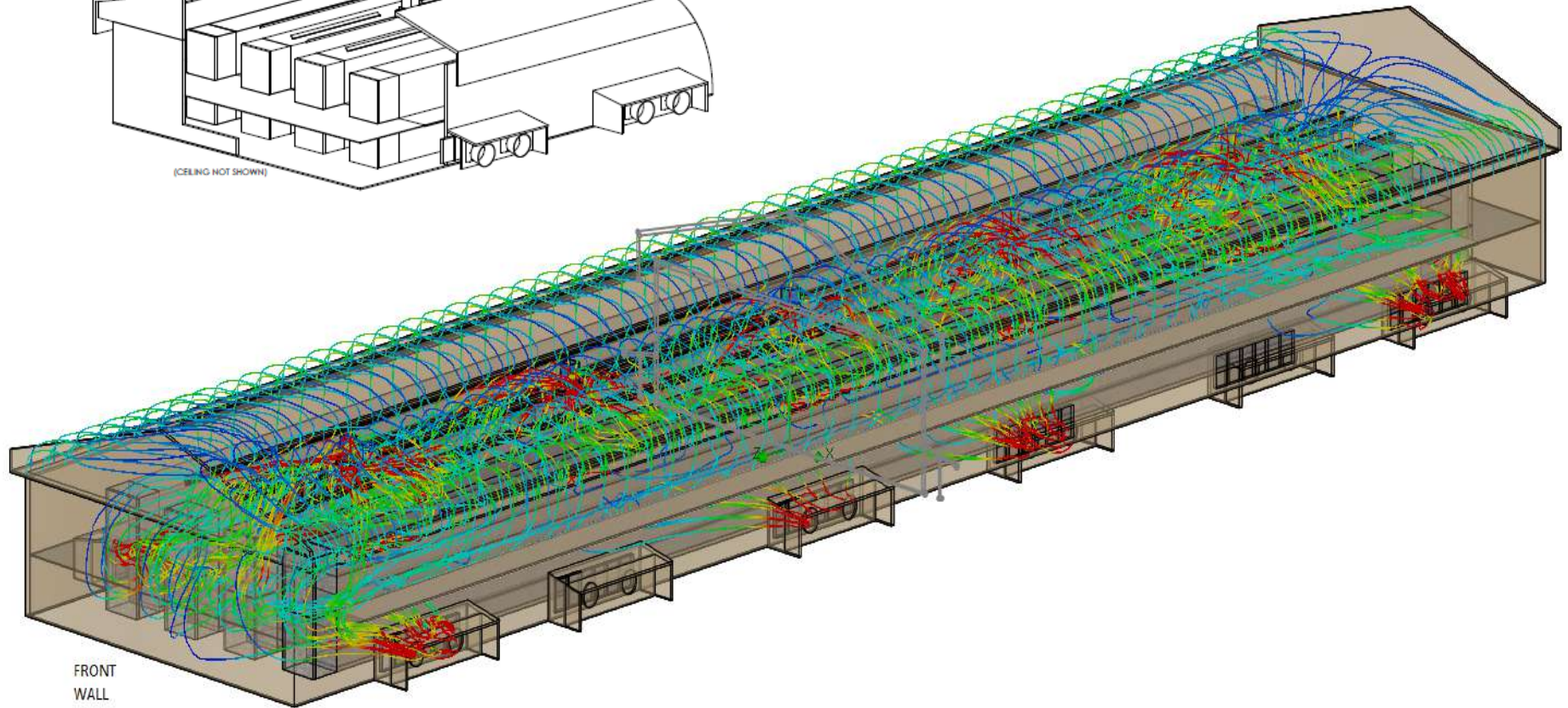
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Derrick Ament

Ventilation Considerations for Cage-Free Layer Systems



(CEILING NOT SHOWN)



FRONT
WALL

Ventilation Considerations for Cage-Free Layer Systems



- Temperature uniformity and air patterns can affect bird distribution
 - location and granularity of how the inlets and fans operated
 - configuration of the production equipment
 - solid catwalks with or without manure belts between levels of the house



Ventilation Considerations for Cage-Free Layer Systems



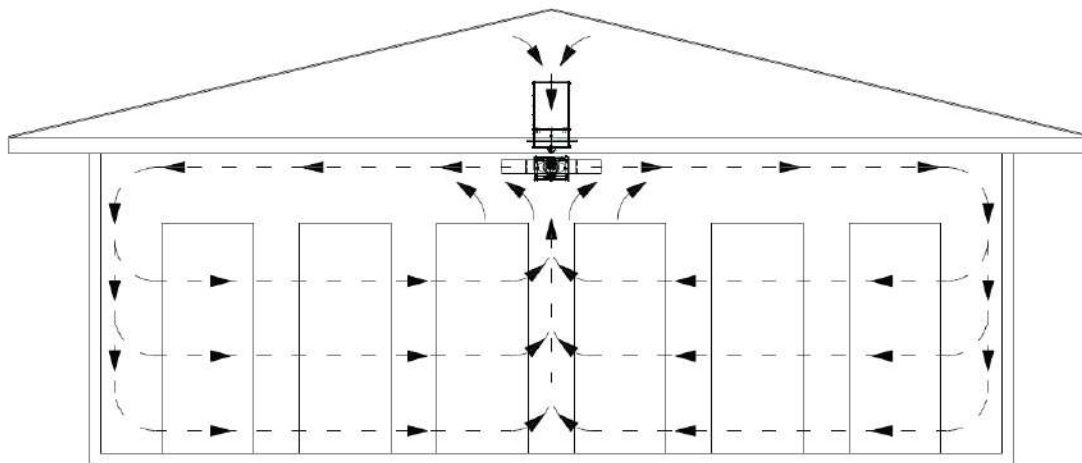
- Continued
 - dividing materials between segments of the barn
 - dimensions of the room(s)
- In addition the primary heat source moves around; especially in the lower levels of ventilation this can cause hot and cold spots



Ventilation Considerations for Cage-Free Layer Systems



- Moving a large volume of air around the house on a constant and broad basis
 - Absorbs and redistributes the bird heat
- Ventilation especially lower levels of ventilation should be designed to be more reactive to localized conditions throughout the bird area



Ventilation Considerations for Cage-Free Layer Systems



- Ventilation should be one of the primary drivers in the building design and selection process of the production equipment
- Ventilation design and equipment selection should be based on the environmental conditions of the site



PANELIST QUESTIONS