



Laying hen Scenario

AWJAC 2016
Team Scenario

Questions to Answer

Individuals only need to answer question 2

1. The University research program has invested in new facilities (New room) to replace the cage and floor room. Assess the new facility and provide recommendations on flock management (e.g. stocking density, litter management, mitigating abnormal behaviors) to maximize the welfare of the birds in this facility.
2. Identify factors in the new facility that may have positive or negative impacts to welfare of these birds compared to the old facilities (Cage room and floor room).

Farm Overview

- Poultry research facility located in Columbus, Ohio
- Relevant rooms include:
 - Egg room
 - Equipment room
 - Cage room
 - Floor room
 - New room
- Back up power generator on site
- Water provided by City of Columbus Water and Sewage Co.

Housing

Cage room

- Layers are housed in non-enriched cages
- Arrive between 15-17 weeks of age
- Breeds: White Leghorn (housed in pairs) and Rhode Island Reds (housed individually)
- Average ammonia recordings: 5 ppm
- Research conducted: Vaccination and drug efficacy trials

Housing Cage room

- Facility dimensions:
 - Cage area: 168 in² (427 cm²)
 - Available feeder space per cage: 12 in (30.5 cm)
 - Available nipples per cage: 1

Housing

Floor room

- Layers are housed with roosters on shavings with nest boxes.
- Arrive at 18 weeks of age and remain until productivity declines
- Breed: Heritage strain
- Average ammonia: 5-10 ppm

- Embryonated eggs are transported to research labs for:
 - Elementary school hatching projects
 - Genetic research studies evaluating muscular disorders

Housing

Floor room

- Facility dimensions:
 - Available floor area: 180 ft² (16.7 m²)
 - Available feeder space: 96 in (243.8 cm)
 - Available drinker space: 84 in (213.4 cm)

Housing

New room

- Constructed October, 2016
- Layers will arrive at 15 weeks of age in January, 2017
- Breed: White Leghorn hybrids

Housing

New room

VAL-CO Community nest dimensions:

- Available floor area: 180ft² (16.7m²)
- Available slat area: 124ft² (11.5m²)
- Available feeder space: 90 in (227.6 cm)
- Community nests include gentle expeller
- Raised winchable slats which can be assembled at varying heights

Euthanasia

- SOP available in Equipment room
- No transportation of birds off-farm occurs
 - All birds euthanized on-farm
- Hens checked for consciousness using the corneal reflex
- Carcasses composted on-site
- Unused eggs that were incubated are euthanized with CO₂ and then frozen for 4 hours before discarding

Vaccination and Pain Modification Protocols

- All vaccination and modifications occur prior to arrival at the barn
- Vaccinations includes:
- Hatchery:
 - Marek's Disease, Infectious Bronchitis (IB), Coccivac, Fowl Pox
- Pullet farm:
 - Newcastle disease and IB (21 days, 10 weeks)
 - Fowl pox (10 weeks)
- Beak trimming occurs at 10 days of age using hot blade

Nutrition

- All birds are ad libitum fed diets that meet or exceed NRC requirements
- All feed delivered in 50 lb. bags and mixed at the Ohio Agricultural Research and Development Center (OARDC) in Wooster, OH
- Feed is stored on pallets in a cooler

Personnel

- Farm manager
 - MS and PhD in Meat and Animal Science
 - Worked on farm since 2010
 - 10 years experience in poultry judging
- 1 undergraduate
 - Works part-time to gain experience in poultry production
 - No previous experience

Training

- Manager gives student hands-on training for their jobs and instructs them with regard to specific work-related hazards
- Student is trained on the following:
 - Biosecurity and cleaning protocols
 - Feeding protocols
 - Basic handling skills

Cleaning protocol

- Each room is power washed and disinfected upon completion of an experiment or production cycle.
- Litter is maintained such that ammonia emissions are minimized (smell detection) which requires a periodic addition of fresh litter

Routine Management and Handling

- Hens are observed a minimum of 2 times/day
 - During feed and water checks in the morning
 - Quick walk through in the afternoon
- Hens caught by hand by manager and student
- One hen per hand held upside down by legs
- Lights are dimmed and catchers use head lamps with red lights