

Episode

1.9

INNOVATION

SHOWCASE

October 6, 2021 11AM MT

Brown hens are from Venus, white
hens are from Mars

Featuring Dr. Tina Widowski, Professor, University of Guelph



STRAIN DIFFERENCES

When laying hens were only housed in conventional cages, the most notable differences between strains came down to feeding, feed efficiency and the colour of their eggs. As the popularity of eggs from non-cage systems increases, an understanding of genetic differences between white- and brown-feathered strains, is critical for successful management.

HOW DO BROWN AND WHITE LAYERS DIFFER?

- Several studies have found differences between white and brown strains of laying hens.
- The differences between brown and white laying hen strains have been described in 3 areas: physique (body conformation, including bone strength and muscle weight); locomotion (how the birds move) and fear responses.

'Differences in white and brown hens have been observed for physique, locomotion and fear response'

POULTRY INNOVATION PARTNERSHIP

visionary

change

collaboration

opportunity

“Understand strain differences to improve management



P H Y S I Q U E

Browns and whites hens are built differently.

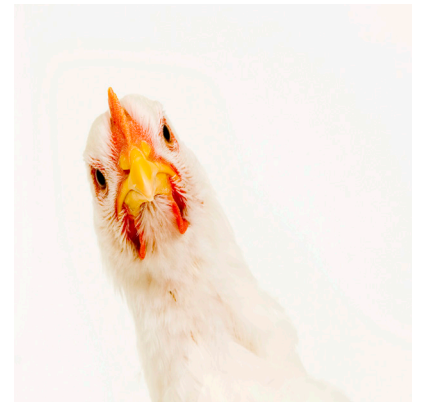
White hens have proportionally larger keels, larger pectoral muscles and lighter leg muscles than browns. Some studies have shown higher keel fracture rates in brown hens.



L O C O M O T I O N

Browns and whites use 3-D space differently.

Whites perch more, run more and perform more aerial transitions (moving between tiers of aviary systems). Hens that move more tend to have stronger bones, less susceptible to breakage.



F E A R R E S P O N S E

Browns and whites express fear and stress differently.

While brown strains show greater measures of fear and anxiety in some standardized tests, birds from white strains show a greater flight response when startled. White strains also show a higher physiological response to restraint.

The Innovation Showcase is presented monthly by the Poultry Innovation Partnership and hosted by Brenda Reimer & Valerie Carney. Learn more at: poultryinnovationpartnership.ca/innovation-showcase

