



## SOLUTIONS

**Prof. Alexandra Harlander** and her team of researchers have found solutions to improve the locomotion of laying hens:

- Provide **inclined surfaces and perches in rearing environments** so that chicks can develop locomotion skills early on.
- **Install ramps for birds to move to different tiers.** Birds prefer ramps over ladders because they have a solid surface. Ladders act like perches and birds don't want to have to jump to each perch, they want to walk up.
- **Ensure ramps are at a 40 degree angle or less.** Above this angle, birds will begin using their wings instead of walking.

Improved locomotion will reduce keel bone fractures and foot damage resulting in healthier birds that can dedicate their energy to egg laying.

# IMPROVING LOCOMOTION SKILLS IN LAYING HENS

Keel bone fractures in cage-free hens is one of the largest management issues facing egg farmers today.

Improving the locomotion skills of laying hens reduces the risk of injury and allows birds to maneuver in cage-free aviary systems more easily. Healthy and injury-free flocks enables the birds to focus their energy on natural behaviours, including laying eggs.

### Problem

Keel bone fractures are painful for birds and impair their locomotion abilities. In cage-free multi-tier aviary systems these fractures have become very common. It is speculated the fractures are caused by collisions with the structure when birds are flying up and down to tiers, or because of under-developed locomotion skills.

### Background

Hens are bipedal ground birds meaning they prefer to stay on the ground and flying is only used as a panic response. Canada is transitioning out of conventional caged systems and multi-tier aviaries are one of the most common cage-free systems. Each tier has a different purpose; one for water, one for food, and one for nesting, so it is important that birds can easily maneuver within the system.

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