

**Supplementary
Submission
No 398a**

**INQUIRY INTO USE OF BATTERY CAGES FOR HENS IN
THE EGG PRODUCTION INDUSTRY**

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Additional Australian Comparative Mortality Data

1. A 2014 PhD Thesis (attached) reported no significant difference in the cumulative mortality between different hen housing systems on the Qld University experimental farm at Gatton.

FR - **5.83%**
Cage- **6.14%**
Barn - **6.44%**

The data on the causes of mortality showed that the housing system had a major influence on the causes of death. The most common cause of death in hens kept in cages was FLHS (fatty liver haemorrhagic syndrome) with 74% of the mortality from this condition. In free-range and barn systems mortality was predominantly from cannibalism (77% and 59% respectively).

The Thesis also reported the mortality in 11 different commercial cage farms in Qld with a range between **2% to 11% (mean 5.37%)**. Causes of mortality were undetermined on the majority of the farms but on farms where autopsies were done, 40% to 70% of the dead hens suffered from FLHS.

2. A 2012 Report to the Australian Egg Corporation Limited (AECL) by Downing (attached) that dealt with stress/corticosterone levels in different housing systems (also recorded deaths in the participating farms), reported the following cumulative mortality:

Free-range farms (5) - 3.1%, 3.5%, 4%, 5% and 7.2% (**mean 4.5**),

Cage farms (4) - 1.75%, 2%, 3% and 6.5% (**mean 3.3**)

Barn farms (3) - Only 1 farm supplied data and the mortality was 4.1%.

[The difference in mortality between systems reported in the above 2 studies \(and the Glatz 2008 study, mentioned in my submission\) are inconsistent with the figures outlined in the 2017 Animal Health Australia Consultation Document and the NSW Government 2018 Independent Consultation Report.](#)

Interestingly, the 2012 AECL sponsored study by Downing reported no significant difference in corticosterone (stress) levels between the different housing system but marked differences between individual farms in the same housing system. This should have served as a strong reason for the researchers to assess/verify the conditions and management on each farm. However, as evident from the material and methods section, the researchers did not visit the farms. Hence, the comparison of stress in their study could have been between the best managed cage farms and the worst managed free-range, or barn farms. The collection time of the eggs (morning, midday, late) is also not specified and this could have had a significant impact on the corticosterone levels. Furthermore, since the eggs were not collected by the researchers directly from the flocks, a level of uncertainty exists as to the bona fide housing status of the eggs, stocking densities and other critical husbandry and management attributes.