



## Position note: Enriched cages do not meet the welfare needs of laying hens.



Scientific research, including reports by the European Commission's Scientific Veterinary Committee<sup>1</sup> and by the European Food Safety Authority<sup>2</sup>, has established that hens have powerful drives to lay their eggs in a nest, peck and scratch at the ground (foraging behaviour), dustbathe, perch and perform wing-stretching and flapping. There are negative welfare impacts if these cannot be performed<sup>3,4,5,6</sup>.

Enriched (furnished) cages provide 750cm² per hen, and equipment for feeding, drinking, egg collection, manure removal, insertion and removal of hens³. In addition, they provide equipment intended to enable hens to express some of their behavioural needs: perches, nest boxes, a pecking and scratching area³. Compared to the barren battery cages, which lack any resources for nesting, perching, foraging and comfort behaviours, and provide only 600cm² of space, enriched cages are a marginal improvement. However, in enriched cages there is still insufficient space, competition for resources and inappropriate design e.g., of perches and scratching areas, meaning the behavioural needs of hens are mostly not met<sup>8,9</sup>.

There is insufficient space in enriched cages, both horizontally and vertically, to perform even the most basic species-specific behaviours. It has been reported that laying hens need on average 1190 cm² for dustbathing, 2841cm² for wing flapping, 670cm² for standing, 25cm² for perching¹0, 1316cm² to turn around and 1693cm² for wing flapping¹¹, whereas an enriched cage only offers 750cm² and a height of 45cm. Running, jumping and flying – common behaviours of hens – are simply not possible in a cage.

There is not enough horizontal space for all birds to perch at once<sup>10</sup>; hens are all motivated to perch on elevated structures at night (and to a lesser extent during the day), and they become agitated if roosting is prevented<sup>12</sup>. Due to the lack of vertical space in enriched cages, perching birds are often in contact with the roof of the cage and are forced to crouch, which reduces the preference of hens to perch<sup>13</sup>. Enriched cages have perches less than 10cm high<sup>7</sup>, however, studies have shown that hens prefer to use perches elevated at 50-90cm<sup>12,14,15</sup>. Also, lower perches are found to increase the risk of vent pecking<sup>16, 17, 18</sup>.

Dustbathing, foraging, scratching and searching behaviours, are rarely fully expressed in an enriched cage<sup>19,20</sup>. To avoid the risk of high dust levels, the provision of foraging and scratching substrate (e.g. feed, sand, wood-shavings, sawdust and straw) is commonly minimal, and it has been found that fewer hens perform foraging behaviours in enriched cages compared to a barn system (15% vs 38% of hens expressing foraging, respectively)<sup>21</sup>. Due to the lack of space, any birds attempting to dustbathe are commonly interrupted, jostled or pecked by their companions<sup>22</sup>. Given the absence of any dustbathing substrate and sufficient space, most dustbathing is sham-dustbathing<sup>8,21</sup>, taking place on the wire floor without substrate and is therefore insufficient to sate the motivation of the hen for this important behaviour, and leads to feather damage and loss.

Enriched cages are provided with a darkened area for birds to nest. However, nesting material is not provided. Research shows that hens prefer to lay in nests containing loose material which can be both moulded by their body and feet movements and manipulated with their beaks during nest building<sup>23</sup>.

Being unable to express their innate behaviours, hens experience frustration which can result in abnormal behaviours. For example, feather pecking is thought to be the result of redirected pecking behaviour<sup>4,5</sup>; it is a serious welfare concern in caged systems because it causes pain<sup>24</sup> and results in negative production consequences due to mortality, reduced productivity and increased feed consumption<sup>25,26</sup>. Due to the serious consequences of feather pecking, beak trimming is widely employed. However, beak trimming (either using hot blade or infrared methods) is a welfare concern in itself as it is painful <sup>27,28</sup> and results in a loss of function of the beak <sup>29</sup>.

Extensive scientific reviews demonstrate that only cage-free systems provide the potential for animals to express their full behavioural repertoire and for a good quality of life, when the right combination of house design, breed, rearing conditions and management are met<sup>30,2</sup>. Key features of good design for cage-free housing can be found here: <a href="https://doi.org/10.1001/journal.org/">https://doi.org/10.1001/journal.org/</a> to potential for agood quality of life, when the right combination of house design, breed, rearing conditions and management are met<sup>30,2</sup>. Key features of good design for cage-free housing can be found here: <a href="https://doi.org/10.1001/journal.org/">https://doi.org/10.1001/journal.org/</a> to a supplied the potential for a good quality of life, when the right combination of house design, breed, rearing conditions and management are met<sup>30,2</sup>. Key features of good design for cage-free housing can be found here: <a href="https://doi.org/10.1001/journal.org/">https://doi.org/10.1001/journal.org/</a> to a supplied to the potential for a good quality of life, when the right combination of house design, breed, rearing conditions and management are met<sup>30,2</sup>. Key features of good design for cage-free housing can be found here: <a href="https://doi.org/10.1001/journal.org/">https://doi.org/10.1001/journal.org/</a> to a supplied to the potential for the potential for

Enriched cages, despite the marginal improvements they offer compared to the barren battery cages, are still cages and lack most features needed to ensure an acceptable level of welfare to the hens. They have a low welfare potential by design, and no amount of good stockmanship can make up for the physical and behavioural restrictions imposed on the animals. Scientists, citizens and consumers around the world are calling on producers and food businesses to phase out cages and invest in future-fit cage-free systems.







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