

## INFORMATION SHEET 2 – CONSUMER PERCEPTION OF EGG PRODUCTION

### CONSUMER ATTITUDES TO FARM ANIMAL WELFARE

Consumers are increasingly concerned about how their food is produced and the welfare of the animals involved. Studies across the EU, North America, Latin America, Asia and Australia indicate that animal welfare concerns have become more important to consumers over the past two decades<sup>1</sup>. The 2023 Eurobarometer on Animal Welfare found that the vast majority (91%) of EU citizens believe it is important to protect the welfare of farmed animals, eight in ten (84%) believe the welfare of farmed animals should be better protected than it is now, and six in ten (60%) are willing to pay more for products from animal welfare-friendly production systems<sup>2</sup>. Similarly, the 2024 BEUC survey found that nine in ten EU consumers want new laws to improve farm animal welfare, including more space, no cages, and an end to routine mutilations<sup>3</sup>. According to the results of the recent EU public consultation on the modernisation of EU farm-animal welfare legislation<sup>4</sup>, overall, 89% of respondents fully agreed that current EU farm animal welfare legislation does not ensure that farmed animals can express normal behaviour. In the UK, a survey conducted in 2022 found that two thirds (66%) of British consumers consider animal welfare standards in their dietary choices<sup>5</sup>. A large majority (86%) of American consumers reported purchasing at least one product with a welfare-related label in the past 12 months in 2022<sup>6</sup> and in 2018 more than half (57%) said they would be likely to choose a restaurant because it serves welfare-certified animal products<sup>7</sup>.

### CONSUMER ATTITUDES TO LAYING HEN WELFARE / EGG PRODUCTION SYSTEMS

Consumers globally consistently show a high level of concern for laying hen welfare<sup>8-13</sup> (Fig. 1, Table 1). Surveys of attitudes to animal welfare published in 2022 across 14 countries (Australia, Bangladesh, Brazil, Chile, China, India, Malaysia, Nigeria, Pakistan, Philippines, Sudan, Thailand, UK, and USA) found that a substantial majority of adults in all of these countries agree that hens can feel pain (ranging from 97.9% in Bangladesh to 79.3% in the USA), can experience emotion (ranging from 88.5% in Thailand to 71.4% in the USA), and need room to explore and exercise (ranging from 96.4% in Chile to 62.4% in India)<sup>49</sup>. A majority of adults surveyed in most of these countries agree that it matters to them that hens producing eggs do not suffer and that they would prefer to buy eggs from hens that have not been kept in cages<sup>8,49</sup> (Figure 1). A 2024 study assessing consumer perception of sustainability attributes of egg products across 8 EU countries and the UK found that, of those surveyed, 85% consider animal welfare and 88% consider the production method important attributes (of which 50% and 57% say these are very to extremely important attributes, respectively)<sup>13</sup>. In the recent (2026) EU public consultation on the modernisation of EU farm-animal welfare legislation<sup>4</sup>, 99% of EU citizens who responded considered the phasing out of cages for laying hens important, and a similar percentage also think cages should be phased out for pullets.

There is consensus among consumers globally that the main concerns for laying hen welfare relate to living conditions, including outdoor access and space allowance<sup>9,14,49</sup>. This is reflected in a widespread preference for eggs from free-range systems<sup>15-20</sup>.

In various studies, consumers' motivation to purchase free-range and cage-free eggs is influenced by the perceptions that these eggs are healthier<sup>15,21-23</sup>, safer<sup>15,21-25</sup>, more natural<sup>14,23</sup>, better for the environment<sup>24</sup>, better for farm workers<sup>24</sup>, higher quality<sup>22-24</sup>, and taste better<sup>14,15,22,23</sup>.

Compared with eggs from conventional cages, studies have shown that consumers from various countries (Chile, Canada, Spain, Norway, Poland, and China) are generally willing to pay more for eggs from higher welfare systems, including non-cage<sup>12,16-18</sup> and free-range<sup>12,15-20,26</sup> systems. Studies

from Spain, Norway, and China indicate that some consumers are willing to pay a significant premium for organic eggs<sup>17-19,26</sup> but the high price of organic eggs can be barrier for some consumers in Spain and Poland<sup>17,20</sup>.

In the UK, data from retail sales of eggs in 2025 indicate that the cage-free eggs represent 84% of the market share, mostly driven by sales of free-range eggs (76%)<sup>27</sup>. In 2019, more than a third (36.3%) of Spanish consumers reported that they usually buy free-range eggs, 26.2% barn eggs, 14.1% cage eggs, and 10.3% organic eggs (12% did not know)<sup>17</sup>. A quarter (25%) of consumers in Santiago, Chile, reported in 2020 that they buy free-range or cage-free eggs, half (51%) buy cage eggs, and a quarter (24%) do not know the origin of the eggs they buy<sup>12</sup>. In France and Poland, the most recently available sales data indicates that cage-free eggs are preferred by the consumers - 82% of eggs sold by retailers in France in 2025<sup>28</sup>, and 59% of eggs sold by retailers in Poland in 2023<sup>29</sup> were from cage-free systems.

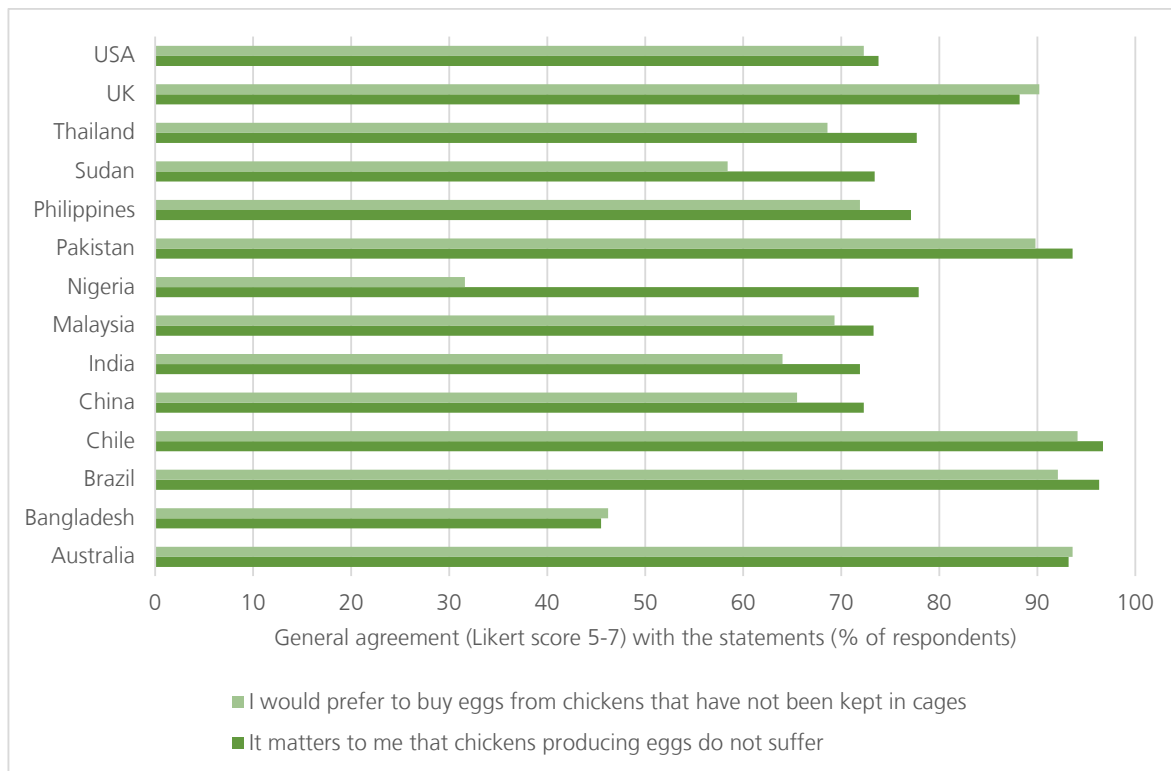


Figure 1. General agreement (proportion of respondents with Likert scores 5 somewhat agree + 6 agree + 7 strongly agree) with the statements 'It matters to me that chickens producing eggs do not suffer' and 'I would prefer to buy eggs from chickens that have not been kept in cages' in 14 countries. Source: Sinclair et al. (2022)<sup>8</sup>.

Inadequate labelling can be a barrier to consumer choice. While labelling of shell eggs with the method of production is mandatory in the EU and the UK (since 2008<sup>30</sup>), this is not the case in other regions. However, studies have shown that there is public support for clear method of production labelling in other regions such as Taiwan (2018)<sup>25</sup>, Australia (2018)<sup>31</sup>, and the US (2025)<sup>32</sup>.

## CONSUMER ATTITUDES TO BEAK TRIMMING AND INJURIOUS PECKING

Many consumers are unaware that laying hens are commonly beak-trimmed (e.g. 64%<sup>10</sup> and 75%<sup>33</sup> were unaware in two UK studies conducted in 2020 and 2022). When provided with information about beak trimming and injurious pecking, in 2016 UK consumers expressed an additional willingness to pay (WTP) price premium of 3.4% on the retail price of free-range eggs to help address injurious pecking in free-range systems<sup>15</sup>.

Injurious pecking is less common in some white-feathered hens (which produce white-shelled eggs) compared to brown-feathered hens (which produce brown-shelled eggs) and using these hens can help to eliminate routine beak-trimming. While UK consumers show a preference for brown-shelled eggs, a 2020 study found that by providing them with this information, the proportion of respondents who stated that they consider eggshell colour when choosing eggs increased, and the preference for brown-shelled eggs disappeared<sup>34</sup>.

## CONSUMER ATTITUDES TO CULLING OF MALE LAYER-TYPE CHICKS

Many consumers are unaware of the practice of culling male layer-type chicks (e.g. 30% were unaware in a 2019 German study<sup>35</sup>, 48% in a 2021 Dutch study<sup>36</sup>, and 75% in a 2018 Swiss study<sup>37</sup>, 59% in a 2023 UK study<sup>38</sup>, 93% in a 2025 Brazilian study<sup>39</sup>, 80% in a 2025 Australian study<sup>40</sup>, 89.5% in a 2023 US study<sup>41</sup>). When consumers are made aware of this practice, it is met with widespread disapproval<sup>35-42</sup>.

When consumers are made aware of the issue, there is broad approval of in ovo sexing as an alternative to culling male chicks<sup>37,38,40-43</sup>. In Australia and the US 84% and 64% of consumers surveyed in were interested in purchasing eggs where in-ovo sexing was used (in 2025 and 2023 respectively)<sup>40,41</sup>, while 77% of UK consumers surveyed in 2023 supported the adoption of in-ovo sexing technology<sup>38</sup>. In Germany, a 2019 study revealed that for almost 75% of Germans surveyed in ovo sexing was the preferred alternative to male chick culling<sup>43</sup>. Earlier (day 1 or day 4 of incubation) in ovo sex determination was preferred over later (day 9) in ovo sex determination in a 2020 German study<sup>44</sup>. For some consumers (e.g. 23-29% in a 2022 Dutch study<sup>36</sup>, and 27% in a 2021 German study<sup>42</sup>) the use of dual-purpose poultry with the males reared for meat is the preferred option, and a free-range rearing system is preferred<sup>43</sup>. Dutch consumers in 2022 ranked purchasing eggs and poultrymeat without culling of male chicks ('animal-friendliness') as the second most important consideration after food safety<sup>36</sup>.

Consumers are willing to pay more for poultry products that avoid culling of male layer-type chicks. In a 2022 Dutch study, the majority of respondents were willing to pay more than double the price for eggs without culling of male chicks and half were willing to pay equal to, or more than, the current market price for cockerel burgers in the Netherlands<sup>36</sup>. In Switzerland, a 2018 study found that the mean willingness to pay (WTP) values for chicken breast and eggs from dual purpose chickens were 13% and 29% greater than the observed prices for conventional Swiss chicken breast and eggs, respectively, and 34% and 9% lower than the observed prices for organic products<sup>37</sup>. Studies in Brazil (2025)<sup>39</sup>, Australia (2025)<sup>40</sup>, and the US (2023)<sup>41</sup> also indicate that consumers are willing to pay more for eggs where in-ovo sexing technology is used to avoid male chick culling.

Table 1. Key findings on consumer attitudes to laying hen welfare in selected countries.




In the UK, most consumers believe that hens can feel pain (91.7%), emotion (75.1%), and that it matters that the hens do not suffer (88.2%)<sup>8,49</sup>. The vast majority of UK customers prefer to buy cage-free eggs (90.2%)<sup>8</sup> and most buy free range (always 66%, sometimes 28%)<sup>15</sup>, and believe it is wrong to eat eggs from hens that have not had a good life (64%)<sup>15</sup>.

Most UK consumers are even willing to pay more for free-range eggs (76%)<sup>15</sup> and believe that it's important that hens have room to explore and exercise (90.5%)<sup>49</sup> and can display normal behaviour (89%)<sup>15</sup>. Consumers in the UK believe that eggs from hens with high welfare are healthier and better tasting (68%), safer to eat (41%)<sup>15</sup>. Similarly, those who buy free range do so because they believe the hens are happier (74.2%) and healthier (69.0%) and the eggs taste better (57.9%)<sup>14</sup>.


Among free-range egg consumers in the UK, factors considered most important for hen welfare were outdoor access (chosen as most important by 56% of respondents) and space allowance (24.5%)<sup>14</sup>. Indoor resources considered most important for hen welfare were perches (chosen as most important by 31.9% of respondents), dust baths (24.8%), straw bales (23.5%) and pecking blocks (17.3%)<sup>14</sup>. Outdoor resources considered most important were shelter (62.6%), perches (15.6%), and dust baths (15.2%)<sup>14</sup>.

In the UK, consumer beliefs and preferences translate into actual buying behaviour with cage-free eggs making up 84% of volume of retail sales in the UK in 2025 (6% barn, 76% free-range, 2% organic)<sup>27</sup>.


A 2023 consumer survey revealed that 82% of respondents in the UK were uncomfortable with the practice of male chick culling and that 77% supported the adoption of in-ovo sexing technology as an alternative<sup>38</sup>.


 A 2018 survey of French attitudes to animal welfare found that 90% of respondents were opposed to caged farming of laying hens<sup>45</sup>, a statistic confirmed in a more recent 2026 survey where 90% of respondents indicated they are in favour of a EU-wide ban on caged farming<sup>46</sup>.


Of the 7.3 billion eggs sold by retailers in France in 2025, nearly 82% came from cage-free systems<sup>28</sup>. A 2023 survey revealed that egg codes, indicating the method of production, are understood by 81% of French consumers, and method of production is the top focus for French consumers when buying eggs (43%), above French origin (18%) and price (13%)<sup>47</sup>.

 A 2017 study of Polish consumers found that next to price, method of production was the most important attribute when choosing eggs. Eggs from free range production were the most preferred, followed by eggs from organic production, then eggs from indoor cage free systems. Caged eggs were the least preferred<sup>20</sup>.

While only 32.3% of laying hens are in cage-free production in Poland<sup>48</sup>, cage-free eggs account for 59% of the retail sales of eggs demonstrating strong consumer demand<sup>29</sup>.

 A 2019 survey of Spanish consumers<sup>17</sup> revealed that free range eggs were the most purchased (36.3% of respondents), followed by indoor cage-free eggs (26.2%). Organic eggs were purchased by 10.3% of respondents. Only 14.1% of respondents purchased eggs from caged production. Only 12% of respondents reported not knowing which system the eggs they usually bought came from.

 Most consumers in China believe that hens can feel pain (91.1%), experience emotion (85.1%)<sup>49</sup>, and that it is important that they do not suffer (72.3%)<sup>8</sup>. Many Chinese consumers say that they prefer to buy cage-free eggs (65.5%)<sup>8</sup> and agree that hens need room to explore and exercise (88.3%)<sup>49</sup>. A study of consumers in Chongqing found that consumers were willing to pay 375% more (equivalent to 42.8 Yuan/kg) for organic or free-range eggs<sup>26</sup>.

 In the US, most consumers believe that hens can feel pain (79.3%), experience emotion (71.4%)<sup>49</sup>, and that it is important that they do not suffer (73.8%)<sup>8</sup>. Over three quarters (77.7%) of US consumers state that they would prefer to buy eggs from hens that have not been kept in cages<sup>8</sup> and 73.5% agree that they need room to explore and exercise<sup>49</sup>.

When asked to rate the impact of switching from conventional systems to cage-free systems (free-range and cage-free indoor aviaries), most consumers believed the switch would have a positive impact on hen health and stress (Free range: 75.8% Aviary: 72.8%), and hen behaviour (Free range: 74.1% Aviary: 71.6%). Additionally, most consumers believed the switch would have a

positive impact on egg quality (69.4% / 67.4%), natural resource use efficiency (64.6% / 60.6%), food safety (61.4% / 60.0%), environmental impact (61.3% / 60.1%), and worker health and safety (57.2% / 53.9%)<sup>24</sup>. US consumers use terms like “inhumane”, “cruel”, and “sad” with caged eggs, and believe that cage-free production would result in healthier and happier hens, as well as healthier eggs<sup>50</sup>. While US consumers prefer policies which place less restriction on production methods for eggs (such as mandatory labelling and farm subsidies over a ban on production)<sup>32</sup>, almost 80% would support their retailer making a cage-free commitment<sup>50</sup>.

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