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Wiceprzewodniczący Komisji Timmermans,  
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Szanowna Przewodnicząca Komisji von der Leyen, Wiceprzewodniczący Komisji Timmermans  
oraz Komisarze Kyriakides i Wojciechowski

### **Naukowcy wspierają zakończenie hodowli klatkowej w całej UE**

Naukowy argument przeciwko klatkom jest jasny - europejskie zwierzęta hodowlane prowadzą nędzne życie na ograniczonej przestrzeni. Wielu z nich odmawia się ważnych i podstawowych naturalnych zachowań i tego, co sprawia, że warto żyć. Istnieją lepsze sposoby hodowli i jako eksperci w dziedzinie dobrostanu zwierząt wzywamy Komisję Europejską do zaktualizowania prawodawstwa, aby odzwierciedlić to, co wszyscy wiemy, że jest prawdą - żadne zwierzę hodowlane nie powinno cierpieć w klatce.

W pełni popieramy apel ponad 1 miliona osób, które niedawno podpisały Europejską Inicjatywę Obywatelską „Koniec Epoki Klatkowej - End the Cage Age”, wzywającą UE do wycofania wszystkich klatek w hodowli zwierząt.

W Unii Europejskiej ponad 300 milionów zwierząt hodowlanych jest zamkniętych w klatkach. Badania naukowe pokazują, że klatki mają z natury poważne wady z punktu widzenia dobrostanu zwierząt, a ich stosowanie jest niezgodne z Traktatem uznającym zwierzęta za istoty czujące. W każdym przypadku istnieją komercyjnie opłacalne alternatywy, które zapewniają lepszy dobrostan zwierzętom.

Wspieramy wycofanie następujących:

**„Wzbogacone” klatki dla kur niosek:** klatki bateryjne są już objęte zakazem w UE. EFSA stwierdziła, że we wzbogaconych klatkach „repertuar zachowań jest nadal ograniczony w porównaniu z zachowaniem ptaków w systemach bezklatkowych”<sup>i</sup>. W ulepszonych klatkach kury wciąż nie mogą zaspokoić swoich potrzeb, takich jak grzędowanie, swobodne poszukiwanie pożywienia i kąpiele piaskowe<sup>ii iii iv v</sup>.

**Klatki porodowe:** są tak wąskie, że maciory nie mogą się obrócić ani wykonywać swoich naturalnych odruchów związanych z budowaniem gniazda<sup>vi</sup>. Badania pokazują, że śmiertelność prosiąt w kojcach porodowych może być tak samo niska lub wręcz niższa niż w kojcach porodowych<sup>vii viii</sup>. Satysfakcja macior związana z budowaniem gniazda jest powiązana z późniejszymi pozytywnymi macierzyńskimi odruchami u matek, mniejszą liczbą zgniecionych prosiąt, a także zdrowszymi prosiętami<sup>ix</sup>. W przeciwieństwie do tego, trzymanie macior w klatkach może prowadzić do przedłużonego porodu, wyższej liczby urodzeń martwych prosiąt oraz do agresywnych zachowań matek<sup>x</sup>.

**Kojce indywidualne:** ograniczenie unijne dotyczące tychże nadal pozwala na ich stosowanie przez pierwsze cztery tygodnie ciąży. Wynika to z obaw, że mieszanie w stadzie macior we wczesnej ciąży może być szkodliwe dla wskaźnika cięż oraz rozwoju zarodków i ich przeżywalności. Jednak wiele badań nie wykazało niekorzystnego wpływu takiego mieszania macior na ich zdolność reprodukcyjną, wskaźniki cięż lub przeżycie zarodków<sup>xi, xii</sup>. Prawo unijne powinno więc zostać zmienione w celu usunięcia wyjątku, który zezwala na korzystanie z kojców dla loch w pierwszych czterech tygodniach ciąży.

**Młode kurki (kury przed rozpoczęciem składania jaj) oraz nioski i brojlery rozplodowe:** obecnie nie ma żadnych ograniczeń co do przetrzymywania tych ptaków w jałowych lub wzbogaconych klatkach. Należy zaprzestać używania obu typów klatek dla tych ptaków.

**Klatki dla królików hodowlanych:** prawie wszystkie króliki w UE są zamknięte w przepelnionych, jałowych, drucianych klatkach, w których ich jakikolwiek ruch jest poważnie ograniczony. Praktycznie nie mają możliwości ćwiczeń, co prowadzi do osłabienia kości, podczas gdy druciane podłoże często powoduje bolesne owrzodzenia nóg i łap. Króliki w klatkach nie są w stanie wykonywać wielu ważnych naturalnych zachowań, takich jak kopanie, ukrywanie się i żerowanie. Prowadzi to do ogromnego stresu i nieprawidłowości zachowań, takich jak powtarzające się gryzienie klatki.

**Klatki dla przepiórek, kaczek i gęsi:** co najmniej 143 mln przepiórek jest hodowanych rocznie w UE na mięso i jaja. Większość z nich jest trzymana w klatkach, w których nie są w stanie wykonywać swoich naturalnych zachowań, w tym biegać, zażywać kąpieli piaskowych i żerować. Cierpienie, którego doświadczają jest zupełnie niepotrzebne, ponieważ dostępne są systemy z chowu ściółkowego i wolnego.

Stosowanie klatek w hodowli kaczek i gęsi jest już niezgodne z prawem na mocy różnych zaleceń Rady Europy. Mimo to kaczki i gęsi hodowane na foie gras są wciąż przetrzymywane w małych, jałowych klatkach przez ostatnie dwa tygodnie życia i karmione w tym okresie na siłę. Należy zaprzestać stosowania tych klatek, a także karmienia wymuszonego.

**Indywidualne kojce dla cieląt:** Dyrektywa dot. hodowli cieląt wymaga, aby cielęta były trzymane w grupach od 8 tygodnia życia, ale dopuszcza trzymanie ich w indywidualnych kojcach do tego wieku. Badania pokazują, że cielęta hodowane w izolacji mają niewystarczające umiejętności społeczne, trudności w radzeniu sobie w nowych sytuacjach, a także słabszą zdolność uczenia się<sup>xiii</sup>. Dyrektywę należy zmienić tak, aby wymagała, aby cielęta były trzymane w grupach lub parach po oddzieleniu od matki, z wyjątkiem przypadków, gdy lekarz weterynarii zaświadczy, że chore lub ranne cielę musi być trzymane w indywidualnym pomieszczeniu.

Niektórzy hodowcy trzymają cielęta indywidualnie, twierdząc, że zmniejsza to ryzyko chorób, ale badania wskazują, że niski odsetek chorujących zwierząt można osiągnąć, gdy cielęta są trzymane w małych, stabilnych grupach oraz poprzez dobre praktyki zarządzania hodowlą, w tym odpowiednie metody karmienia mlekiem, zapewnienie higieny, odpowiedniej wentylacji, praktykowanie karmienia siarą oraz monitorowanie diety i zdrowia zwierząt<sup>xiv</sup>.

Podsumowując, dowody naukowe zdecydowanie wskazują, że trzymanie zwierząt gospodarskich w klatkach musi zostać zakończone. Popieramy i wzywamy Komisję Europejską do wydania decyzji w sprawie Europejskiej Inicjatywy Obywatelskiej „Koniec Epoki Klatkowej - End the Cage Age”, która obejmuje przegląd prawodawstwa mający na celu wycofanie klatek z hodowli.

Z poważaniem,

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<sup>i</sup> European Food Safety Authority: Panel on Animal and Welfare. Scientific opinion on welfare aspects of various systems for keeping laying hens. Annex to The EFSA Journal (2005) 197, 1-23

<sup>ii</sup> Rodenburg *et al*, 2005. Welfare, health, and hygiene of laying hens housed in furnished cages and in alternative housing systems. *Journal of Applied Animal Welfare Science* 8(3):211-26.

<sup>iii</sup> Louton *et al*, 2016. Dust-bathing behavior of laying hens in enriched colony housing systems and an aviary system. *2016 Poultry Science* 00:1–10

<sup>iv</sup> Platz *et al*, 2009. Comparative study on the behaviour, health and productivity of laying hens in a furnished cage and an aviary system. *Berl Munch Tierarztl Wochenschr.* 122(7/8):235-40.

<sup>v</sup> Lay D *et al*, 2011. Hen welfare in different housing systems *2011 Poultry Science* 90 :278–294

<sup>vi</sup> Baxter *et al*, 2018. Sow welfare in the farrowing crate and alternatives. In: Spinka M (Ed) *Advances in Pig Welfare*, Elsevier

<sup>vii</sup> Baxter *et al*, 2012. Farrowing accommodation: welfare and economic aspects of existing farrowing and lactation systems for pigs. *Animal.* 6, 96\_117.

<sup>viii</sup> Weber *et al*, 2007. Piglet mortality on farms using farrowing systems with or without crates. *Anim. Welf.* 16, 277-279

<sup>ix</sup> Baxter *et al*, 2018 *Op.Cit.*

<sup>x</sup> *Ibid*

<sup>xi</sup> Cassar *et al*, 2008. Influence of stage of gestation at grouping and presence of boars on farrowing rate and litter size of group-housed sows. *Journal of Swine Health and Production*, 16: 81-8

<sup>xii</sup> van Wettere *et al*, 2008. Mixing gilts in early pregnancy does not affect embryo survival. *Animal Reproduction Science*, 104: 382-388.

<sup>xiii</sup> Costa *et al*, 2016. Effects of group housing of dairy calves on behavior, cognition, performance, and health. *J. Dairy Sci.* 99:2453–2467

<sup>xiv</sup> *Ibid*

Commission President von der Leyen,  
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Commissioners Kyriakides and Wojciechowski  
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Dear Commission President von der Leyen, Commission Vice President Timmermans and  
Commissioners Kyriakides and Wojciechowski,

## **Scientists support an end to caged farming throughout the EU**

The scientific argument against cages is clear — European farmed animals live miserable lives confined to small spaces. Many are denied important and basic natural behaviours and what makes a life worth living. Better ways of farming exist, therefore we call on the European Commission to update legislation to reflect what we all know to be true — no farmed animal should suffer in a cage.

We fully support the call by over 1 million people that recently signed the ‘End the Cage Age’ European Citizens’ Initiative, urging the EU to phase out the use of all cages in farming.

In the European Union over 300 million farmed animals are caged. Scientific research shows that cages have inherent severe disadvantages for animal welfare; their use is inconsistent with the Treaty recognition of animals as sentient beings. In each case commercially viable alternatives exist that provide better welfare.

We support a phase out of the following:

**‘Enriched’ cages for laying hens:** Battery cages are already banned in the EU. EFSA has concluded that in enriched cages “the behavioural repertoire is still restricted compared with birds in non-cage systems”.<sup>1</sup> Hens’ need to perch, forage and dust-bathe cannot be properly fulfilled in enriched cages.<sup>2 3 4 5</sup>

**Farrowing crates:** These are so narrow that sows cannot even turn round nor can they perform their highly motivated nest-building behaviours.<sup>6</sup> Studies show that piglet mortality in free farrowing pens can be as low as, or lower than, in crates.<sup>7 8</sup> Satisfactory nest-building behaviour is linked with positive maternal behaviours, reduced crushing, and healthier piglets.<sup>9</sup> In contrast to this, crating sows can lead to prolonged farrowing with associated higher stillborn rates in some cases and to aggressive maternal behaviour.<sup>10</sup>

**Sow stalls:** The EU restriction on sow stalls still allows them to be used for the first four weeks of the pregnancy. This arises from concerns that mixing sows in early gestation may be detrimental to pregnancy rate and to embryo development and survival. However, a number of studies have found no adverse effects of mixing on reproductive performance, pregnancy rates or embryo survival.<sup>11 12</sup> The law should be amended to remove the derogation that permits the use of sow stalls during the first four weeks of pregnancy.

**Pullets (young hens before they start laying eggs) and layer and broiler breeders:** Currently there is no restriction on keeping these birds in barren or enriched cages. The use of both types of cages should be phased out for these birds.

**Cages for farmed rabbits:** Almost all of the EU's rabbits are confined in overcrowded barren wire cages in which their movement is severely restricted. There is virtually no opportunity for exercise which can cause weakened bones, whilst wire flooring commonly leads to painful foot and leg sores. Caged rabbits are unable to perform many important natural behaviours such as digging, hiding and foraging. This can lead to immense stress and abnormal behaviours such as repetitive gnawing on the cage.

**Cages for quail, ducks and geese:** At least 143 million quail are farmed annually in the EU for their meat and eggs. Many are kept in cages where they are unable to perform most of their natural behaviours, including running, dust-bathing and foraging. This suffering is completely unnecessary as barn and free range systems are available.

The use of cages for housing ducks and geese is already unlawful under various Council of Europe Recommendations. Despite this, ducks and geese reared for foie gras are kept in small, barren cages for the last two weeks of their lives while they are force fed. The use of cages should be ended – as should force feeding.

**Individual calf pens:** The Calves Directive requires calves to be kept in groups from the age of eight weeks but permits them to be kept in individual stalls until that age. Studies show that calves reared in isolation have deficient social skills, difficulties in coping with novel situations, as well as poorer learning abilities.<sup>13</sup> The Directive should be changed to require calves to be housed in groups or pairs once they are separated from their mother, other than when a veterinarian certifies that individual housing is needed for an ill or injured calf.

Some farmers house calves individually believing that this reduces disease risk but research indicates that low levels of disease can be achieved in calves kept in small, stable groups by good management practices including appropriate methods of milk feeding, and good hygiene, ventilation, colostrum practices, diet, and health monitoring.<sup>14</sup>

In conclusion, the scientific evidence indicates strongly that the housing of farmed animals in cages or crates must be ended. We support, and urge, the Commission to issue a decision on the 'End the Cage Age' European Citizens' Initiative which includes a revision to legislation to phase out the use of cages in farming.

Yours sincerely,

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<sup>1</sup> European Food Safety Authority: Panel on Animal and Welfare. Scientific opinion on welfare aspects of various systems for keeping laying hens. Annex to The EFSA Journal (2005) 197, 1-23

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<sup>2</sup> Rodenburg *et al*, 2005. Welfare, health, and hygiene of laying hens housed in furnished cages and in alternative housing systems. *Journal of Applied Animal Welfare Science* 8(3):211-26.

<sup>3</sup> Louton *et al*, 2016. Dust-bathing behavior of laying hens in enriched colony housing systems and an aviary system. *2016 Poultry Science* 00:1–10

<sup>4</sup> Platz *et al*, 2009. Comparative study on the behaviour, health and productivity of laying hens in a furnished cage and an aviary system. *Berl Munch Tierarztl Wochenschr.* 122(7/8):235-40.

<sup>5</sup> Lay D *et al*, 2011. Hen welfare in different housing systems *2011 Poultry Science* 90 :278–294

<sup>6</sup> Baxter *et al*, 2018. Sow welfare in the farrowing crate and alternatives. In: Spinka M (Ed) *Advances in Pig Welfare*, Elsevier

<sup>7</sup> Baxter *et al*, 2012. Farrowing accommodation: welfare and economic aspects of existing farrowing and lactation systems for pigs. *Animal.* 6, 96\_117.

<sup>8</sup> Weber *et al*, 2007. Piglet mortality on farms using farrowing systems with or without crates. *Anim. Welf.* 16, 277-279

<sup>9</sup> Baxter *et al*, 2018 *Op.Cit.*

<sup>10</sup> *Ibid*

<sup>11</sup> Cassar *et al*, 2008. Influence of stage of gestation at grouping and presence of boars on farrowing rate and litter size of group-housed sows. *Journal of Swine Health and Production*, 16: 81-8

<sup>12</sup> van Wettere *et al*, 2008. Mixing gilts in early pregnancy does not affect embryo survival. *Animal Reproduction Science*, 104: 382-388.

<sup>13</sup> Costa *et al*, 2016. Effects of group housing of dairy calves on behavior, cognition, performance, and health. *J. Dairy Sci.* 99:2453–2467

<sup>14</sup> *Ibid*