



Welfare of calves kept for white and rosé veal production

Position Paper

May 2021

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Background

In the European Union (EU), veal is defined as **meat from calves up to 12 months of age**. Since 2008, three distinct 'veal definitions' are applicable in the EU (Commission Regulation (EC) No 566/2008). White veal (milk-fed or special fed veal) is the traditional form of veal production and still holds the largest proportion of the EU veal industry; the meat is white in color due to the milk-based diet under which calves are raised until slaughtering age (around six and eight months). Rosé veal (red, grain-fed or non-formula-fed) originates from calves aged between eight to 12 months old, but it is slightly more red due to a different diet. Meat from bovines older than 12 months is locally marketed under different denominations (i.e. 'beef').

From a regulatory standpoint, calves up to six months of age are protected by Council Directive 2008/119/EC (Calves Directive). After that age, their welfare is regulated by Council Directive 98/58/EC (General Farming Directive). The Calves Directive entered into force in 2009 and it set a **ban on the use of individual pens after the age of eight weeks** (Calves Directive, Art. 3(a)), **minimum dimensions for such pens** (*Ibid.*), and **minimum space allowances for calves kept in groups** (Calves Directive, Art. 3(b)). Additionally, it required the supply of a minimum daily ration of fibrous food for calves older than two weeks (Calves Directive, Annex I, point 11). The welfare of calves during transport and slaughter is regulated, respectively, by Council Regulation 1/2005 (Transport Regulation) and Council Regulation 1099/2009 (Slaughter Regulation).

Context

Calves are considered to be a by-product of the milk industry, as a cow needs to give birth to produce milk. If the newborn is female, it can be reintegrated in the milk industry as dairy cattle (the percentage can vary between 15 to 60%, depending on the yearly herd replacement rate) or sent to a veal calf fattening farms; if male, it can be killed as 'unwanted' shortly after birth (EFSA, 2012), or farmed to produce white and rosé veal. White veal is light in colour mainly because the calves are fed with milk or milk replacer for their whole life, with the addition of some roughage that is very poor of iron. Rosé veal is slightly darker in colour thanks to the corn and grain-based diet the calves are fed with from the age of two months. [Around 6.9 million tonnes of bovine meat \(beef and veal carcasses\) are produced in the EU every year. About 70 % of the EU's veal meat is produced in the Netherlands \(26.4 %\), Spain \(24.2 %\), and France \(19.9 %\).](#)

Calves farmed for white and rosé veal production, are likely to experience various health and welfare issues, due to:

- **Early separation:** Despite the fact there is evidence that calves kept with the mothers tend to gain more weight (Flower F.C. and Weary D.M., 2001) and become more sociable and socially competent as adults, newborns are normally separated from the dam immediately, or within a few hours, after birth and moved into individual pens; calves can be kept in such pens up to eight weeks of age. Despite the fact these pens are built to guarantee minimum movement of the animals and have visual and tactile contact with other calves (Calves Directive, Art. 3(a)), **there is strong and consistent evidence of behavioral and developmental harm associated with individual housing** and on the benefits of social housing in terms of intakes and weight gains (Costa J.H.C., 2016);
- **Transport from the farm of origin to a fattening one:** After two weeks, calves are generally transported into specialised fattening farms. Despite the fact by EU law only calves younger than 10 days are considered 'unfit for transport' (Transport Regulation, Annex I, Chapter 1, point 2(e)), their transport is particularly problematic also in the following weeks. Young calves should not be transported where possible (Sossidou et al., 2009), as they are not well adapted to cope with transport, which results in high rates of morbidity and mortality, both during, and in the few weeks immediately following transport (Knowles, 1995). Indeed, the immune system of these animals at the age of transport - two-five weeks - is not built up (Marcato et al, 2018). This immunological gap results in numerous animals that get infections during and after the transport has taken place. At arrival, very often, antibiotics are given to regulate this grievance. For these reasons, **the European Food Safety Authority (EFSA) suggests that the transport of very young terrestrial farmed animals should be avoided** (EFSA, 2004);
- **Housing:** At present, calves farmed for white and rosé veal, are almost exclusively kept on wooden slatted floors and concrete slatted floors, respectively. Calves kept on these kinds of floors from the age of eight to 12 months, may develop leg and claw disorders and may step on each other's tails with high risk of inflammations in the tail or even in the spine. The **EFSA suggests that other floor types may be more comfortable and may possibly provide health benefits** (EFSA, 2012). For instance, there is some evidence that the risk of diarrhoea is higher on farms with concrete slatted floors versus other floor types (Gulliksen S.M., et al. 2009). Research carried out in the Netherlands (van der Tol J.H., et al., 2017) shows that calves prefer the rubber covered slats, and that with the use of this floor the prevalence of carpal bursitis is significantly lower. Conscious of the implications the type of floors might have on the calves' well-being, the German Directive 2008/119 made mandatory (from 2023) slatted floors that are soft and elastic formable, thus covered by materials such as rubber surface or straw;
- **Malnutrition:** Calves raised for white veal production undergo a limited iron intake for the whole fattening period. By law, calves' feed shall contain sufficient iron to ensure an average blood haemoglobin level of at least 4,5 mmol l (Calves Directive, Annex I, point 11). However, **the EFSA recommends diets that ensure a**

blood haemoglobin concentrations of at least 6,0¹ mmol l throughout the life of the calf, as below 5,0 mmol l⁻¹ veal calves exhibit a number of adaptations to iron deficiency, including elevated heart rate, elevated urinary noradrenaline and altered reactivity of the HPA axis (EFSA, 2006).

Eurogroup for Animals' position

The [Farm to Fork strategy](#) provides the opportunity to, within an appropriate transitional period, drastically improve the welfare of calves across the EU. Eurogroup for Animals urges a revision of the applicable EU animal welfare laws to:

- **Allow contact between the calf and the dam** for at least the first eight weeks of age. During this period calves and cows shall be kept in a half-day contact system - at least - with suckling permitted.
- **Forbid the transport of calves younger than 12 weeks of age**, regardless of the transport duration and conditions (Eurogroup for Animals, 2021). Calves shall be fattened as close as possible to the farm in which they are born and, once reached the slaughter age (between six and 12 months), they shall be slaughtered in the closed suitable abattoirs. Their transport to slaughter must not take more than four hours. The European Commission and the Member States should work on initiatives, such as '*Beyond Calf Exports*' (Eurogroup for Animals, 2019), to prevent the transport over long-distance of calves.
- **Provide housing conditions that meet calf behavioural needs.** Calves should be kept in groups of 16 till 55 animals per pen, and have access to outdoor areas (at least 2,5 m² per calf). Indoor usable area should be of at least 2,2 m² per calf until the age of eight months and 2,5 m² per calf till the age of 12 months; at least 50% of the indoor usable surface shall consist of straw to allow animals to lie down comfortably.
- **Ensure appropriate nutrition.** Calves should be fed with 10-12% of their body weight of colostrum at first feeding (Godden et al., 2019). If needed, supplemental colostrum should be provided to pre-weaned calves in the form of maximum 70 g of colostrum powder in the milk replacer twice a day for two weeks (*Ibidem*). To accommodate the need for proper ingestion, the height of the sucking device must be of at least 50 cm, for calves up to six weeks of age. From day one, water should also be offered to calves (Jensen and Vestergaard, 2018). Diets must be able to result in blood haemoglobin concentrations of at least 6,0 mmol l throughout the life of the calf, as already required by the German Directive 2008/119. A monitoring system shall be included into the legislation to ensure that this parameter is respected.¹ Calves should be fed with 10-20% of body weight and

¹ Such a EU system could replicate the protocol currently ongoing in the Netherlands and managed by the industry: A blood sample is taken by each calf at an age of 11 - 15 weeks and, if needed, an iron supplement provided. When calves reach 20 weeks of age, blood samples are taken by some calves in a given group (i.e sample). In case of iron deficit detected in the samples, iron supplements are administered to all the animals of the group. At the time of slaughter, when the color of the meat is measured, if an iron deficit is detected via the Spectrum Minolta system, warnings to the farm/s of origin are given as preventive measures.

and 16-22 MJ (3-6 weeks of age) and 160-240 g crude protein per day (Drochner, 2008). The feeding frequency should be of more than three meals per day (EFSA, 2012). The diet must be for ruminants and roughage must be offered in long fibres and as often as necessary. More specifically: feed must have a dry content of at least 50%. Calves farmed for rosé veal shall be fed exclusively with roughage after 12 weeks of age.

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