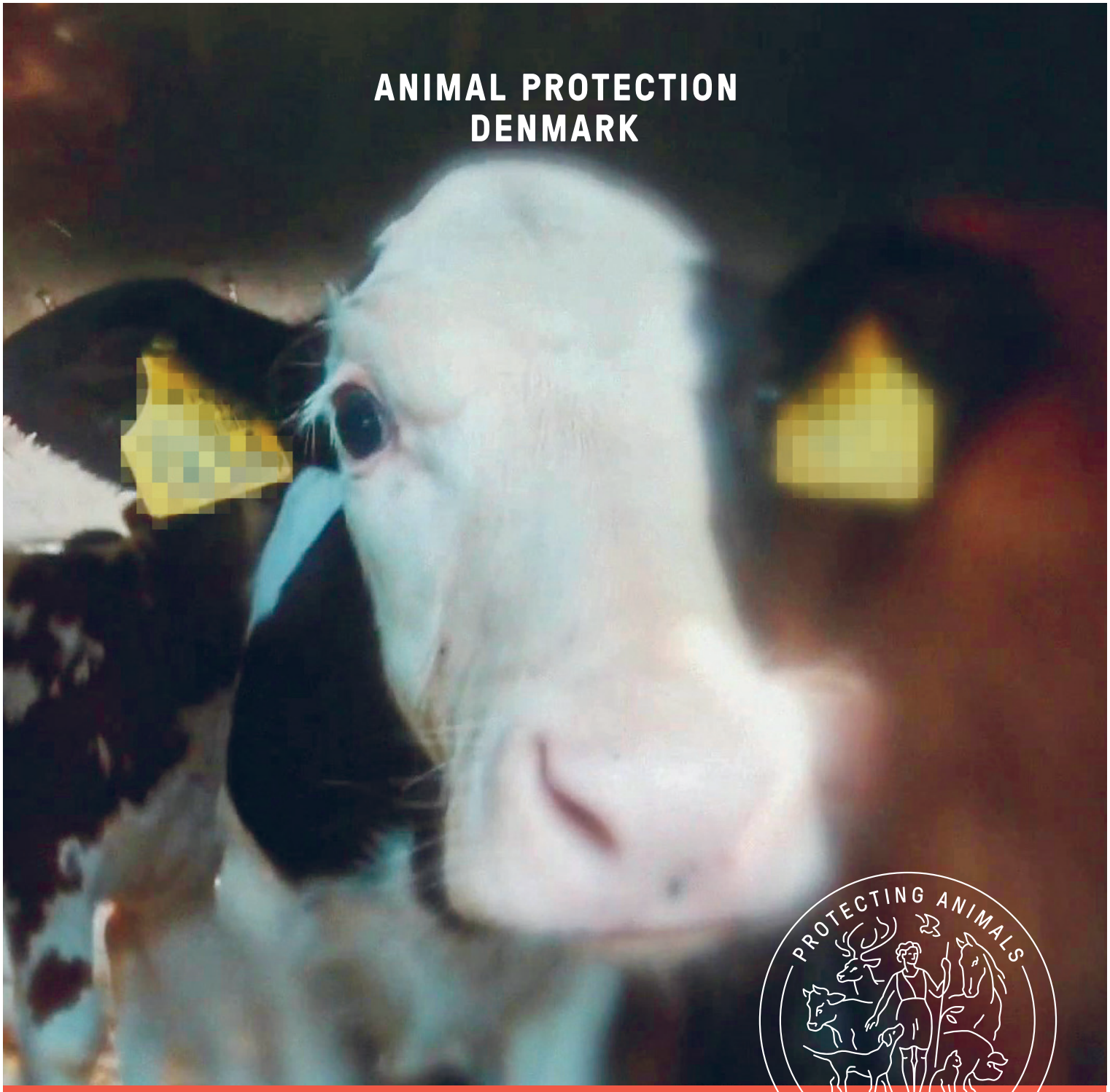
ANIMAL PROTECTION
DENMARK



LONG-DISTANCE TRANSPORT OF CALVES

TRANSLATED FROM: "LANGE TRANSPORTER AF KALVE" (2022) BY DYRENES BESKYTTELSE, DENMARK

JUNE 2022

PHOTO: ANIMAL WELFARE FOUNDATION

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1. SUMMARY AND RECOMMENDATIONS

Main conclusions:

- Animal Protection Denmark estimates that thousands of young calves in Denmark are starving and thirsty on long-distance transports, as it cannot be ensured that they receive sufficient feed or water to meet their needs. The hunger and thirst can be so prolonged that the calves are subjected to considerable suffering. We therefore believe that the long-distance transport of young calves is not conducted in accordance with either Danish or EU law. This is confirmed by an investigation we made in which we followed a truck all the way from Denmark to the Netherlands.
- Transport is particularly stressful for young calves, who are unable to consume feed and water independently, they have not developed an active immune system and are therefore in no way suited for long journeys. Animal Protection Denmark thus calls for an immediate Danish ban on the long-distance transport of young calves still dependent on milk feeding, with reference to the unsuitability of these calves for long-distance transport.
- Animal Protection Denmark considers it both unethical and indefensible in terms of animal welfare that Danish farmers export calves to the Netherlands and Belgium to be brought up under conditions that are not allowed in Denmark.

A rising number of young calves are being transported over long distances from Denmark, 40,546 in 2021. That is 60 percent more than in 2016. Samples show that virtually all calves are under 8 weeks old at the time of dispatch — more than 99 percent.

Transport is a major welfare burden for farm animals, who may be exposed to stress, injury, hunger, thirst, dehydration, exhaustion, and overheating. The calves, which are often only two or three weeks old when exported, cannot consume water or food during transport without human assistance. Therefore, they are particularly at risk of prolonged hunger and thirst when transported over long distances. Nine out of ten calves are exported to the Netherlands on journeys of up to 17.5 hours. In the Netherlands — and to a lesser extent in Belgium — they are being raised under conditions that have major negative consequences for their welfare with practices prohibited in Denmark.

The proposal by Animal Protection Denmark to ban the export of calves under eight weeks of age is supported by the findings of the Dohrmann report on the protection of animals during transport, which was adopted by the European Parliament in spring 2019[1]. The report points to the animal welfare problems particularly associated with the transport of unweaned calves and recommends that long journeys for this group of animals be banned altogether.

The European Commission has decided that the Transport Regulation will be revised in 2023. In this context, the need for much stricter rules, in particular for the transport of unweaned animals including calves, has been highlighted during the initial hearings of the European Parliament's Committee of Inquiry on the Protection of Animals during Transport (ANIT), including by international animal welfare organisations and the Federation of Veterinarians in Europe (FVE).

2. FACTS ABOUT TRANSPORT OF YOUNG CALVES

2.1 Development in the number of exported calves

In 2021, 44,582 calves under eight weeks old were exported from Denmark[2]. This amounts to about 8 percent of all calves born in Danish dairy farms[3].

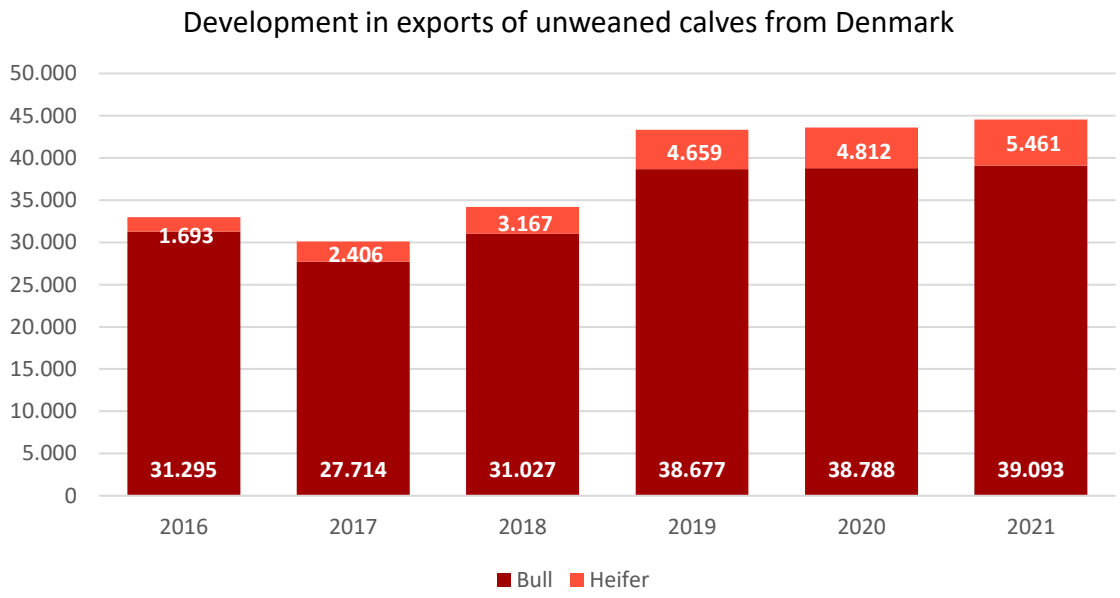


Figure 1. The number of exported unweaned calves under eight weeks old is increasing[2].

Most exported unweaned calves are non-replacement dairy calves. In 2021, bull calves accounted for 88% of all exported calves under eight weeks of age[2]. The exported unweaned calves are mainly of the breed Danish Holstein (63%) also known as the Sortbroget Dansk Malkerace, or crossbreeds (36%)[2].

Historically, dairy bull calves have had very little economic value. In week 12 2021, the price of export calves of dairy breeds was as low as DKK 200 (27 EUR). In week 4, 2022 the price was 300 DKK (40 EUR) for an export calf, still representing a very low value.

For several years, the Danish cattle industry has focused on reducing the export of unweaned calves, but unfortunately has not succeeded in reducing the number significantly, and the number of calves exported has been on the rise again since 2017.

2.2 Age of the calves

Under the EU Transport Regulation, a calf may be transported for more than eight hours (long journey) from the age of 14 days. Calves may be transported for less than eight hours when they are 10 days old.

The vast majority of exported calves are only a few weeks old and therefore still completely dependent on milk when loaded onto trucks.

Age (days)	2016	2017	2018	2019	2020	2021	Grand total
0-6	4	0	15	11	24	43	97 (0.04%)
7-13	71	51	68	105	51	44	390 (0.17%)
14-20	18,015	16,461	18,081	21,620	20,773	20,569	115,519 (50.48%)
21-27	8,758	8,269	9,490	11,706	12,487	13,713	64,423 (28.15%)
28-34	3,508	3,098	3,562	5,407	6,036	5,921	27,532 (12.03%)
35-41	1,598	1,360	1,736	2,819	2,820	2,773	13,106 (5.73%)
42-48	646	561	780	1,111	1,009	1,034	5,141 (2.25%)
49-56	388	320	462	557	400	485	2,612 (1.14%)
Grand total	**32,988**	**30,120**	**34,194**	**43,336**	**43,600**	**44,582**	**228,820**

Table 1. Age distribution for exports of calves from Denmark under 8 weeks old[2].

2.3 Destination countries

Most of the exported, young Danish calves under eight weeks old are sent to the Netherlands (95.74% in 2021) or Belgium (3.83% in 2021), where there is a demand for calves for the production of white veal. A production which is considered to have major negative consequences for the welfare of the animals, and which is therefore not legal in Denmark according to Danish legislation[4]. For more on this, see chapter 5: "Animal welfare problems in destination countries".

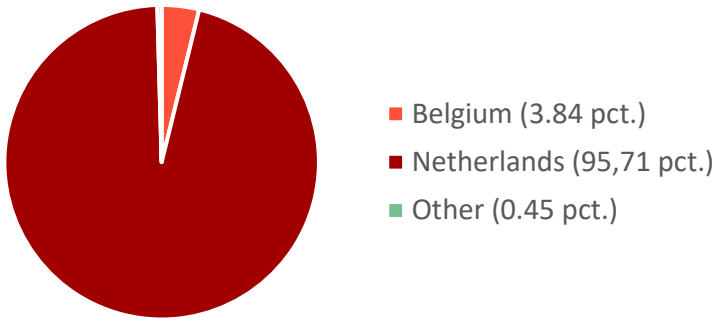


Figure 2. Most Danish calves under 8 weeks old are exported to the Netherlands and Belgium. The graph shows the distribution in 2021[2].

2.4 Long-distance calf transport over 8 hours

A rising number of young calves are being transported over long distances from Denmark, 40,546 in 2021[5]. That is 60 percent more than in 2016.

Journeys from Denmark to the Netherlands and Belgium are so long that most cannot be completed in less than 8 hours. In 2021, about 39,450 of the exported Danish calves ended up on long transports to the Netherlands or Belgium that lasted more than 8 hours[5] — corresponding to about 90% of all exported young calves.

Animal Protection Denmark has examined the birth dates of all 1,668 calves sent on long journeys from Denmark to Belgium and the Netherlands in weeks 40 and 41 in 2020[6] and can document that 91 percent of the calves were less than 1 month old on the day of dispatch. Almost all calves (99.7 percent) were less than 8 weeks old, and the youngest calf shipped from Denmark was just 12 days old — too young for transport according to EU law. From the journey logs we can see that the duration of the transports was estimated to be between 9 and 17.5 hours long.

2.5 Danish export of calves in practice

The exports of Danish unweaned calves take place via an assembly centre in Denmark. In 2021, there were 5 active assembly centres exporting unweaned calves under 8 weeks old, three of which accounted for 99.85 percent of all unweaned calves exported.

Name of assembly centre and location (city)	Calves for export in 2021
Nordjydsk Landboauktion & Eksportstalde, 9610 Nørager	10,686
Skærbæk Eksport Aps, 6780 Skærbæk	23,620
Holstebro Eksportstald Aps, 7500 Holstebro	10,209
Kurt Nisgaard Aps, 6900 Skjern	51
Kreaturhandler Anders Rasmussen A/S, 7500 Holstebro	16
Grand total	**44,734**

Table 2. Distribution of exports of unweaned calves under eight weeks old by assembly centre in 2021[2].

The calves are collected from Danish dairy farms by trucks that drive from farm to farm until all calves en route have been collected. The first calves can therefore have been on the truck for several hours when the last calves are collected. There is no requirement for calves to be fed before pickup. All the calves are then taken to the assembly centre, where they are unloaded under the supervision of an official veterinarian, who checks the age of the animals

and assesses their fitness for transport, i.e. whether they show signs of disease or injury which make them unfit for transport. They are then sorted and placed in pens at the assembly centre.

According to the EU Transport Regulation, the assembly centre may be considered as the point of departure if the driving distance between the farm of birth and the assembly centre is less than 100 km or if the animals are housed at the assembly centre for at least 6 hours before the time of departure from the assembly centre. Therefore, calves are typically kept at the assembly centre for at least 6 hours, so that technically, the assembly centre counts as the point of departure, meaning that neither the trip to nor the stay at the assembly centre will be included in the total transport time of the animals.

The calves are legally required to have access to water during their stay at the assembly centre, but there is no legal requirement for them to be fed (i.e. milk or milk replacer). The calves are dependent on human assistance to ensure they all are able to drink, either water or milk. This is a task that requires both staff and time - resources that are not necessarily available at the assembly centres.

There are likely to be assembly centres where some of the calves are fed milk replacer, but as feeding at the assembly centre is not a legal requirement, there is no monitoring or recording of when or how much milk the calves may have been fed.

Once all calves have been unloaded and, where applicable, have been at the assembly centre for a minimum of 6 hours, they are loaded back onto trucks and driven to the production destination; veal farms in the Netherlands and Belgium. The export journey can therefore start as late as 10-12 hours after the first calves were picked up from the farm of origin.

The total time during which the young, unweaned calves are not able to eat or drink may therefore exceed 24 hours.

2.6 Relevant legislation

The rules for transporting animals differ depending on the animals in question and how far and in what context they are being transported.

The transport of young calves for more than 8 hours is primarily regulated by the following:

- Council Regulation (EC) No 1/2005 of 22 December 2004 on the protection of animals during transport and related operations (Transport Regulation)[7]

- Guidance Note No. 145 of 21 December 2006 on Council Regulation (EC) No 1/2005 of 22 December 2004 on the protection of animals during transport and related operations, etc.[8]
- Executive Order No. 26 of 13 January 2020 on the protection of animals during transport[9]
- Executive Order No. 21 of 7 January 2016 on the protection of animals in assembly centres and other collections of animals, as amended[10]
- Law on Animal Welfare, no. 133 of 25/02/2020[11]

2.7 German ban

In Germany, the Federal Council has passed new regulation, so that transport of calves under four weeks old will be banned.[12] The argument for this new regulation is that the calves' immune system drops sharply at 3-4 weeks of age because the calves no longer receive antibodies from colostrum, and their own immune system is still not fully developed. The calf's own immune system begins to be sufficiently effective when it is about one month old.

The German rules for stopping transport of calves under 4 weeks came into force in 2021 with a transitional period of 12 months — so final entry into force is expected by January 2023.

3. ANIMAL WELFARE PROBLEMS DURING TRANSPORT

3.1 General animal welfare problems during transport

Both short and long journeys put stress on calves, but fundamentally it is more problematic when animals are exposed to stressful conditions for longer periods than when they are exposed to stressful conditions for shorter periods.

General health and welfare problems include:

- Thirst and dehydration (lack of access to water),
- Hunger (lack of access to milk),
- Exhaustion (lack of strength to stand and lack of space to lie down and rest),
- Risk of infection if mixed with other animals,
- Overheating (inability to find a cooler place to be),
- Cold (inability to find a warmer place to be),
- Risk of injury caused by vehicle equipment or other animals,
- Many unfamiliar and potentially unpleasant and frightening sensory impressions (movement, sounds, smells, sights),
- Stress (due to a combination of the above).

3.2 Young calves are particularly vulnerable

Research shows that calves aged 2-4 weeks are particularly vulnerable because they have not yet developed an active immune system[13]. At this particular age, calves are in an "immunological vacuum" where the antibodies they have received from colostrum are no longer active, while their own immune systems are still too immature to produce antibodies themselves. They are thus very susceptible to infections. The risk of encountering diseases and infections obviously increases when mixed with calves from other herds.

As transport also stresses the calf, the combined result of transport, mixing with other animals and lack of immune system poses a significant risk to the calf's health and welfare.

3.3 Lack of access to water during transport

The opportunity to drink water is crucial for the health and welfare of young calves, and it is therefore an EU requirement that a water break is provided for all calves after 9 hours of transport**.**

As the Danish calves are not unloaded from the truck during this break, the driver is obliged to give them water on board the truck.

According to the information gathered by Animal Protection Denmark, this is done by opening the water supply to the drinking valves on the truck during the break. However,

Animal Protection Denmark cannot find any evidence that calves are able to use these drinking systems at all.

Young calves must be accustomed to a given drinking device to use it. Even if the devices are covered with rubber, it is assumed that the amount of water a calf can drink from them is very limited, as the system is not designed in such a way that the devices release water with certainty when the calves suck on them. The technical details of this problem are described in a recent article published in the German Journal of Official Veterinarians[14].

Furthermore, as the calves are in unfamiliar surroundings and with very little space to move about in the dark on trucks with completely closed sides, we consider it unlikely that the calves — without human assistance — will be able to even find the drinking devices.

A Dutch study from 2020 found that almost 40% of calves transported via an assembly centre showed clinical symptoms of dehydration (sunken eyes) immediately after transport — even for transports lasting less than 8 hours[15].

In the opinion of Animal Protection Denmark, it is impossible in practice to provide sufficient water to a large number of young calves on board a truck and therefore these transports do not comply with current EU legislation.

3.4 No access to milk during transport

For calves under 2 months, only milk or milk replacer is suitable to cover the animals' feed requirements[16]. Calves of this age have a physiological need for a daily milk supply equivalent to at least 15 percent of their body weight, spread over at least two meals. That is why there is an EU requirement for calves to be fed — if necessary — during the compulsory rest period after 9 hours of transport on long journeys.

Feeding milk to calves on board a truck requires an advanced feeding system that must be cleaned and disinfected after each transport. In addition, the calves will still need individual human assistance and monitoring to ensure sufficient supply for each animal.

Animal Protection Denmark is not aware of the existence of vehicles for the transport of calves equipped with such a feeding system.

If all animals are to have a real chance to drink while on the truck, it would mean that each calf would have to be offered water or milk by bucket or similar. It is a procedure that cannot possibly be carried out for several hundred animals in just one hour by one or two drivers.

Consequently, Animal Protection Denmark believes it is practically impossible to feed a large number of unweaned calves on board a truck. The assessment that calves *cannot* be fed milk on board a truck is supported by the European Food Safety Authority (EFSA), which concluded in a 2009 report that it is "*technically impossible to feed milk or milk replacer to calves on board a vehicle*"[17].

It must therefore be considered unlawful to carry out transport of unweaned calves for more than 9 hours unless the transport plan includes the possibility of unloading the calves from the vehicle for feeding.

3.5 Documentation of transport from Denmark to the Netherlands

To document times and course of events in calf exports, in the summer of 2021 Animal Protection Denmark sent a camera team to the Nørager assembly centre in North Jutland to follow a calf transport to the Netherlands.

The footage, taken on Thursday the 8th of July 2021, shows that the first calves arrived by truck at the assembly centre at around 10 am. During the next 40 minutes, two more trucks with calves arrived and at 2.48 pm the last truck arrived. The four trucks carried calves collected from a total of 36 different dairy farms[2].

About 5.5 hours after the first calves arrived, loading of the Dutch truck began, and the truck left the assembly centre heading for the destination in Holland around 5 pm.

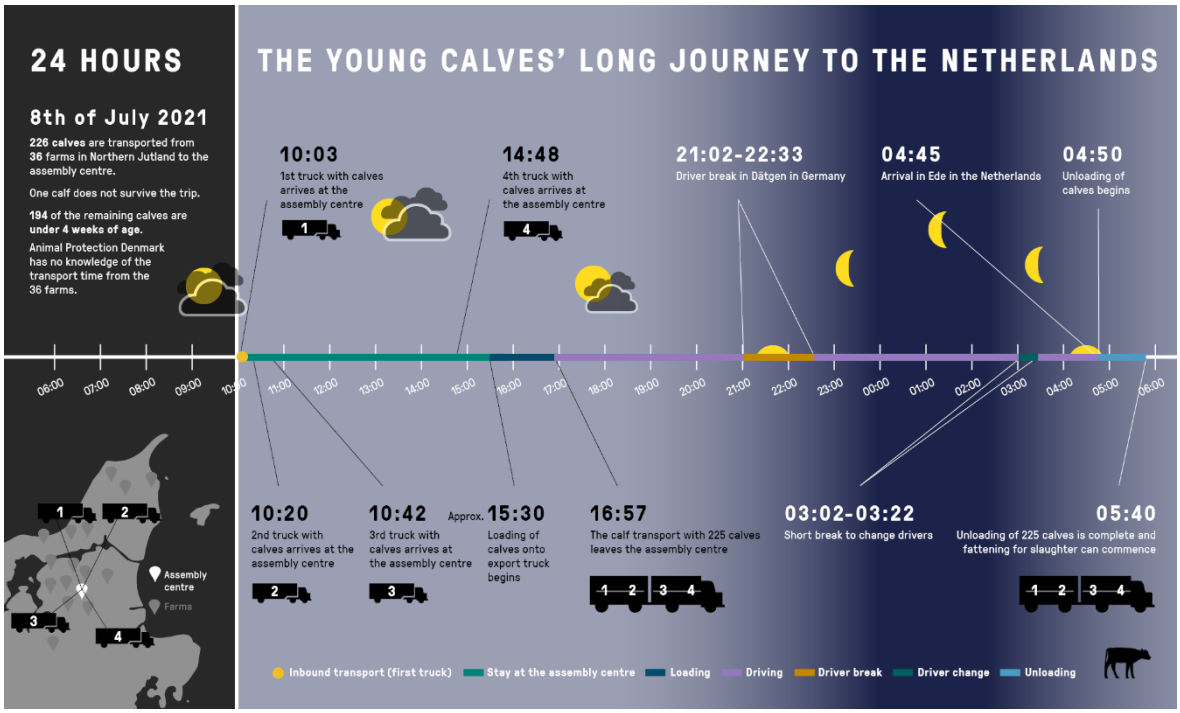
After about 4 hours of driving, the driver stopped for 1.5 hours at a resting area in Germany. During the break, the driver visited the resting area facilities and stayed in the cabin of the truck. He was not inside the cargo hold with the calves at any time. He opened a few vents and peered into the cargo hold for a few seconds, informing the Animal Protection Denmark investigation team that he had opened the water supply from the truck's water tank to the watering devices.

There was no break after 9 hours of transport, and the calves were neither fed nor watered during the journey.

The truck continued to Deurningen in the Netherlands, where a new driver took over. The truck arrived a few hours later at the farm in the Dutch town of Ede, where the last calf was unloaded at 5.40 am.

The transport time from the assembly centre to the final destination was thus about 14 hours, while the total duration of stay at the assembly centre and transport to the Netherlands was over 21 hours for the calves that arrived with the first trucks.

We do not know the exact time of calf collection from the farm of origin, but we do know that calves arrived from herds just more than 100 km away from the assembly centre. Furthermore, it can be concluded that each of the trucks transporting calves to the assembly centre had to drive to an average of 9 different herds to pick up calves. It can therefore be assumed that the first calves were loaded several hours before their arrival in Nørager, and that the total dispatch time for these calves was thus more than 24 hours.



3.6 Violation of the Transport Regulation

Annex 1, Chapter 5, 1.4 of the EU Transport Regulation stipulates that after 9 hours of transport, unweaned calves must have a resting period of *at least* one hour during which *they are watered and, if necessary, fed*. This is clarified in the Danish guidance[8] issued by the Ministry of Justice. After this resting period, transport may continue for a maximum of 9 hours.

The requirements for such a resting period are described in the Ministry of Justice's guidance on the Transport Regulation[8]. It states that:

- The animals must be kept under constant supervision,
- *All* animals must be given time to drink water and possibly feed,
- Watering and, where appropriate, feeding of the animals shall be supervised to ensure that all animals have access to water and feed,
- The feed must be in a form to which the animals are accustomed and it must be offered to the animals in a manner to which they are accustomed,
- Random breaks during shipment do not count as rest periods.

Based on the video-documented transport on 8 July 2021 and the investigation of the journey log for the calf exports, Animal Protection Denmark has established that **no rest is given after 9 hours of transport,** as required by the Transport Regulation**.**

The driver stopped after about 4.5 hours of driving, where he said he opened the water supply to the drinking devices and looked through a couple of ventilation hatches. This was the only supervision of the animals that took place on the trip.

Long journeys of up to 19 hours, with several hundred calves on board, are thus carried out with a single stop, which in many cases takes place after 4.5 hours of driving, i.e. at the time when drivers have to take a break to comply with driving and rest time rules. It should be noted that the driver is not allowed to work, including feeding animals, during the compulsory 45-minute rest break[18].

We know that the Danish unweaned calves are *not* fed on the truck during transport, but we do not know when they were last fed before loading, as there is no requirement to register or document the last feeding in the herd or any feeding at the assembly centre.

No official control is therefore carried out on when or with how much milk each calf was last fed.

In Danish dairy herds, where calves are kept separate from the cow, calves must be fed at least three litres of milk, at least twice a day[4]. It is not specified how long the interval between these feeds should be, but normal practice in Danish herds is to feed milk with about 12 hours between meals.

In addition, due to the physical stress of transport, calves are likely to have increased feed requirements under transport conditions[16].

The opinion of the Veterinary Health Council on the feeding of unweaned young calves, including during transport, states that the *Council considers that the feeding requirement also applies at times when calves are undergoing transport.*[19]

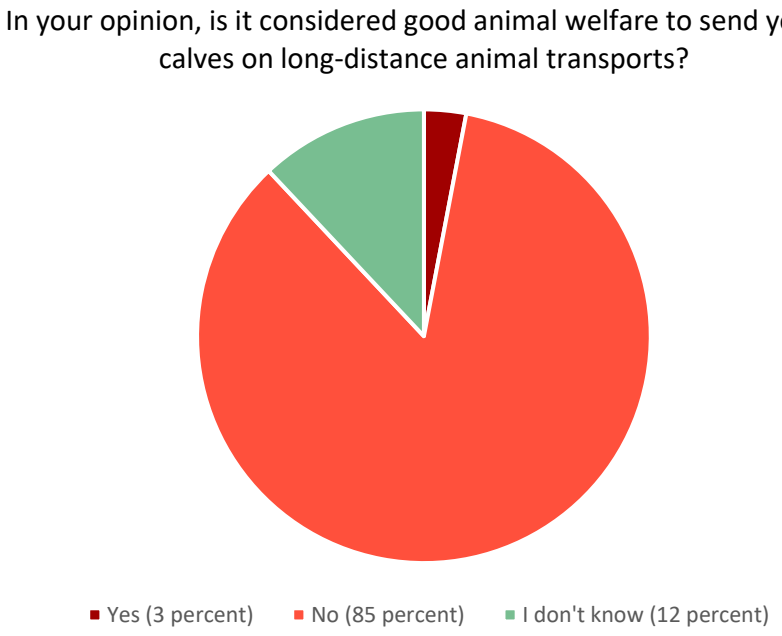
3.7 Conclusion

Animal Protection Denmark believes that Danish unweaned calves risk starvation and thirst on long journeys, as it cannot be ensured that they receive feed or water to cover their needs. We also believe that the calves are exposed to hunger and thirst for such a long time that it can cause significant suffering.

We believe that the transports are not carried out in accordance with current legislation and it will never be compatible with good animal welfare to send unweaned calves on long journeys.

4. PUBLIC OPINION ON CALF TRANSPORTS

According to a survey carried out by Kantar for Animal Protection Denmark between 28 June and 17 July 2021, 85 percent of respondents believe that sending young calves on long journeys is not good animal welfare[20]. 12 percent did not have an opinion on the matter. Only 3 percent thought that the practice is considered good animal welfare.



5. ANIMAL WELFARE PROBLEMS IN DESTINATION COUNTRIES

5.1 Feeding of calves in foreign veal farms

In addition to the major animal welfare problems during the transport itself, the calves also risk being exported for fattening under conditions that are prohibited in Denmark for animal welfare reasons[21].

One consequence of the very low value of calves in Denmark is that some bull calves from Danish dairy production are exported to other countries, such as the Netherlands or Belgium, when they are just 14 days old. Here, white veal is still produced, with calves fattened up in barren housing systems with limited access to straw fodder and on a diet very low in iron to give the muscles — and therefore the meat— a pale appearance. White veal is still considered a delicacy in several countries in Southern Europe, but the production method unfortunately has very serious negative impact for the welfare and well-being of the calves[22].

The Danish Executive Order on minimum animal welfare requirements for the keeping of cattle sets stricter requirements than the EU Calf Directive on several key points such as feeding, water and bedding[23], and it is problematic that Danish calves are sent for fattening under conditions regulated only by the EU minimum requirements.

5.2 Restrictive feeding can lead to anemia and stereotypical behaviour

Restrictive feeding in the production of white veal causes the calves to develop anemia, because iron is necessary to produce hemoglobin and thus red blood cells. The calf's muscles take on a pale appearance.

But anemia does not just make the meat pale. It also has an impact on animal welfare. The main function of hemoglobin is to transport oxygen around the body, and iron-deficient feeding therefore means, for example, reduced activity levels and lower growth for the animals. As anemia is associated with a weakened immune system, the calves may be at greater risk of infectious diseases.

Cattle are ruminants and will normally start eating roughage in small quantities during the first weeks of life. To develop normal rumen function, it is essential that calves have access to roughage, such as grass.

The unnatural and very restrictive feeding of calves with milk replacer and concentrates carefully formulated to keep iron levels artificially low (i.e. no grass or other green feed) has both health and animal welfare implications for calves.

This is so far from their natural feeding choices that there is a risk of the calves developing abnormal behaviour in the form of stereotypes such as tongue rolling.

The unilateral consumption of milk replacer and dry feed by calves is also thought to affect the whole ruminant's complex digestive system and rumination process — and can cause, among other things, abomasal lesions and liver abscesses.

In contrast to the EU Calf Directive, Danish legislation requires that offspring of dairy cattle have access to roughage for at least 20 hours a day[24].

5.3 Risk of lack of access to drinking water

In the Netherlands, there is no requirement for drinking water for calves for slaughter and the EU Calves Directive only requires that calves have access to "sufficient fresh water or be able to meet their fluid needs by drinking other liquids"[23]. In practice, this means that Dutch animals risk not having access to drinking water at all. Danish legislation requires that calves over 2 weeks of age must have access to water at all times[25].

5.4 Conclusion

Animal Protection Denmark considers it both unethical and indefensible in terms of animal welfare that Danish farmers export calves to the Netherlands and Belgium for fattening under conditions that are prohibited in Denmark.

6. PROPOSALS FOR REVISED LEGISLATION

Article 3 of the Transport Regulation prohibits the transport of animals under conditions likely to cause them injury or unnecessary suffering.

According to Annex 1, Chapter 1 of the Transport Regulation, no animal shall be transported unless it is fit for the intended transport and all animals shall be transported under conditions which avoid causing them injury or unnecessary suffering.

The provisions of the Transport Regulation thus allow Member States to introduce national bans on the transport of particular groups of animals on the basis of an assessment of the general unsuitability of that group for long journeys.

A ban on long journeys for unweaned calves would be similar to the Danish ban on long journeys for cull sows, where the Executive Order on the protection of animals during transport states that sows culled from the farm after the end of piglet production are not considered suitable for journeys of more than 8 hours[9].

Similarly, the same Executive Order contains a specific provision for cull hens considered unfit for transport.

Against this background, Animal Protection Denmark proposes to add the following provision to the Ordinance on the Protection of Animals during Transport, Chapter 2 on the requirements for fitness for transport:

> ***§ Calves less than eight weeks old are not considered suitable for transport exceeding eight hours.***
>
> *Subsection 2. If the distance between the first loading site and the assembly centre is less than 100 km, the assembly centre shall be regarded as the point of departure. However, calves less than eight weeks old which stay at the assembly centre for more than two hours shall be considered suitable for transport only for eight hours from the end of the second hour after arrival at the assembly centre.*
>
> *Subsection 3. If the distance between the first loading site and the assembly centre is more than 100 km, calves less than eight weeks old shall not be considered suitable for transport exceeding eight hours from loading at the first assembly centre. The stay at the assembly centre is included in the eight hours to the extent that the stay exceeds two hours.*

It is our hope and assumption that such a ban, besides protecting the calves from suffering during transport, will also contribute toward accelerating the development of a more sustainable and ethically sound Danish dairy production.

7. END NOTES

[1] "Report on the implementation of Regulation 1/2005 on the protection of animals during transport within and outside the EU (2018/2110(INI))" (2019), also known as the Dohrmann Report, https://www.europarl.europa.eu/doceo/document/A-8-2019-0057_EN.html

[2] Data from the Central Livestock Register (Det Centrale Husdyrregister).

[3] Calculation made by Animal Protection Denmark based on 44,734 unweaned calves exported in 2021 (see note 2) out of an average dairy population of 562,550 dairy cows in 2021, which corresponds to 7.95%. However, this calculation is subject to some uncertainty due to the lack of available data.

According to the Central Livestock Register, the exported young calves are mainly of the dairy breed Danish Holstein (63%), also known as the Sortbroget Dansk Malkerace, or cross breeds (36%), which are the breeds used in dairy cattle production. Given that 99% of exported calves are dairy breeds, we can use the total number of exported unweaned calves as an overall estimate for dairy calf exports.

There is no publicly available data on how many calves are born annually in Denmark, so we used the dairy population instead. The number of dairy cows is the best estimate we have for the number of calves born in dairy herds, as cows typically give birth once a year.

The calculation is therefore subject to some uncertainty, but nevertheless provides a useful estimate of the proportion of Danish calves from dairy herds that are exported.

Dairy population 2021:

31st of March: 562,700

30th of June: 564,700

30th of September: 563,500

31st of December: 559,300

Average 2021: 562,550

Source: https://lf.dk/tal-og-analyser/statistik/oksekoed/danmarks-kvagbestand

[4] "Bekendtgørelse nr. 1743 af 30. nov. 2020 om dyrevelfærdsmæssige mindstekrav til hold af kvæg", Executive Order No. 1743 of 30/11/2020, https://www.retsinformation.dk/eli/lta/2020/1743

[5] Animal Welfare Denmark's access to documents held by the Danish Veterinary and Food Administration on long-distance transports of calves under 6 months old in 2021 sorted by destination country.

[6] Animal Welfare Denmark's access to documents held by the Danish Veterinary and Food Administration on long-distance transports of calves to Belgium and the Netherlands in weeks 40 and 41, 2020.

[7] "Council Regulation (EC) No 1/2005 of 22 December 2004 on the protection of animals during transport and related operations and amending Directives 64/432/EEC and 93/119/EC and Regulation (EC) No 1255/97", https://eur-lex.europa.eu/legal-content/DA/TXT/?uri=celex%3A32005R0001

[8] "Vejledning om Rådets forordning (EF) nr. 1/2005 af 22. december 2004 om beskyttelse af dyr under

transport og dermed forbundne aktiviteter m.v.", GUIDE No. 145 of 21/12/2006, https://www.retsinformation.dk/eli/mt/2006/145

[9] "Bekendtgørelse om beskyttelse af dyr under transport", Executive Order No. 26 of 13/01/2020, https://www.retsinformation.dk/eli/lta/2020/26

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