Animal Welfare. Worldwide.

Position Paper

Torture Breeding of farmed animals

and FOUR PAWS demands

Contents

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1. The term Torture breeding

Definition Torture breeding (of farmed animals):

The targeted or deliberate breeding of animals in a way that results in pain, abnormalities and other health problems for the purpose of economic gain (e.g. certain high yielding farmed animal breeds) or optic reasons (e.g. some companion animal breeds). The aim of farmed animal breeding is to increase the profitability of animal husbandry by adapting the animals to the husbandry and production conditions. As a result, the increase of performance parameters (e.g., milk yield, laying performance, daily weight gain) is the focus of breeding efforts. This purely performance-oriented breeding causes pain and suffering in farmed animals, such as walking disabilities, physiological disorders, ascites, inflammations of the laying organs, osteoporosis, mastitis, lameness, and it causes death of millions of newborn or very young animals that are killed of little economic use.

Term "high performance breed" and legal aspects of Torture Breeding

Animals that are bred with the purpose of increased production and thus profitability, with detriment to their health are considered by the industry as "high-performance breeds" or "extreme breeds". The term high performance breeding casts the result of the breeding in a positive light instead of making the animal welfare problems obvious, distracting from the fact that this breeding results in pain and suffering for the animals. Hence at FOUR PAWS the terms "high-performance breeding" or "extreme breeds" are replaced by the term "torture breeding" – a direct translation of the term "Qualzucht", used as the official term in the German and Austrian Animal Welfare Acts. §11b of the German Animal Welfare act defines torture breeding to be starting when it must be assumed that breeding strategies or bioengineering lead to genetic determined pain, suffering or harm for the offspring or the animal itself.[46] In addition, according to §3 of the German Animal Welfare Act it is prohibited, except in emergencies, to demand performance from an animal which it is obviously unable to fulfil due to its condition or which are obviously beyond its strength. But, even though these paragraphs exist, they are not being implemented or enforced. The Austrian paragraph defines breeding characteristics for torture breeding, this makes it easier to define which breeds are torture breeds and which are not, but the Austrian Torture breeding paragraph is also not enforced. Most people think of pets when they hear the term torture breeding, but in fact the much higher number of affected animals are farmed animals. The most common farmed animals can be categorized under torture breeding.

2. The problem of Torture breeding

The aim of increasing yields of farmed animals is to achieve maximum profitability at the expense of animal welfare. To achieve maximum yield, the breeds were bred to be highly specialised. In a single breed, it is not possible to establish several high yielding traits at the same time through breeding (e.g., milk yield or amount of eggs and weight gain are negatively correlated[48]), therefore breeds with a specific type of use were developed. This resulted in different breeds and crosses, namely dairy and beef breeds in cattle or laying and broiler hybrids in chickens. The increase of performance parameters (e.g., milk yield, laying performance, daily weight gain) is the focus of industrial breeding efforts, even though it causes pain and suffering in farmed animals. The selection emphasis on production traits has clearly resulted in a decrease in fitness traits including fertility, health and welfare of the animals[1]. This is further exacerbated by the adverse impact of industrial animal agriculture, which often prioritizes productivity over animal welfare[2].

Genetic selection for increased productivity contributes to welfare issues, such as cardiovascular problems in broiler chickens[3], keel bone damages in laying hens[43], leg deformities in turkeys[44], mastitis and lameness in dairy cows[40], high caesarean rates in some beef cattle breeds[41], high percentage of underweight piglets[42] and pathological joint changes in fattening pigs.

Numerous scientists have been working on the topic of torture breeding of farmed animals. For instance, D'Eath et al.[62] discuss the potential benefits and ethical concerns of breeding for behavioral change, highlighting the need to balance welfare, production, and naturalness. Sandøe et al.[4] further explores the ethical values underlying farmed animal breeding, proposing a combination of quality of life and preservationist approaches. D'Silva[2] underscores the adverse impact of industrial animal agriculture on the health and welfare of farmed animals, advocating for the use of slower-growing breeds and alternatives to current farming practices.

The topic of torture breeding in farmed animals is slowly gaining public attention, but most people associate torture breeding with pets and not with farmed animals. The scientific community is also increasingly discussing torture breeding in animals, for example in training events[71] and on internet platforms such as "QUEN"[72] where facts on torture breeding traits and problematic breeds are compiled.

3. Cattle

3.1 Dairy Cattle

The largest producers of milk worldwide are the EU, USA and India[50]. Due to high milk production, animals suffer from udder inflammation, metabolic diseases and many other painful problems. Over the last few decades, milk yield per cow from an average of 2,600 kg/year of milk in the 1950s[40] has skyrocketed to an average of at least 7,791 kg/year per cow in the EU in 2023[5]. High-yield Holstein cows now produce an average of 10,665 litres per year[106], with top performers producing up to 19,000 litres[107].

Within the EU, Germany is the largest milk producer[49] – and the trend is upward. In the United States the number of dairy cows has been rising for the past years and the production per cow averaged 24,087 pounds for 2022, which is 138 pounds above 2021. According to data from USDA, National Agricultural Statistics Service 2023, the average annual rate of milk production per cow has increased 10.4 percent from 2013.

There is a correlation between milk yield and diseases.[47] Breeding for this enormously high milk yield, which demands everything from physical performance, leads to increased health problems of the animals. At the beginning of the milking period, a high-performance cow cannot consume as much feed as she needs for energy, which means that the body's own reserves are used up, leading to different metabolic disorders.[6] To compensate for high energy needs, animals are fed with an inappropriate high concentrate feed, which again causes problems for the animals, such as subacute ruminal acidosis and other metabolic diseases.[66] Due to the highly concentrated feeding, many animals also experience a strong acidification of the rumen.

Figure 1: High yielding dairy cows.

Figure 2: High-yielding dairy cow.


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Figure 3: Udder of a high yielding dairy cow.


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Dairy cows usually become emaciated, particularly during early lactation, as at this time the milk production is the highest and they cannot eat as much as they burn calories for the loss of the milk. The cows mobilize body fat reserves to support the high milk production of their body, which leads to a negative energy balance.[84] Often, high-yielding cows can hardly walk properly due to their oversized udders. Their claws do not remain healthy either: the enormous amounts of concentrated feed disrupt the growth, health and recovery of the claws compared to cows that are fed a roughage diet of grass and hay, as in suckler cow herds.[67]

Studies in Canada and US showed an increase in the number of cows culled for problems with reproduction, mastitis, lameness or because of an unspecified illness.[96] Similar findings of culling for these production diseases have been reported from several countries like UK[9], the US[10], Finland[11], France[12], Germany[70] and Australia[13], again suggesting a widespread trend.

High performance breeding in dairy cattle causes, among other things:

- Udder inflammations/mastitis
- Metabolic disorders
- Claw problems
- Lameness
- Fertility problems
- Uterine inflammations

Figure 4: Emaciated high yielding dairy cow.


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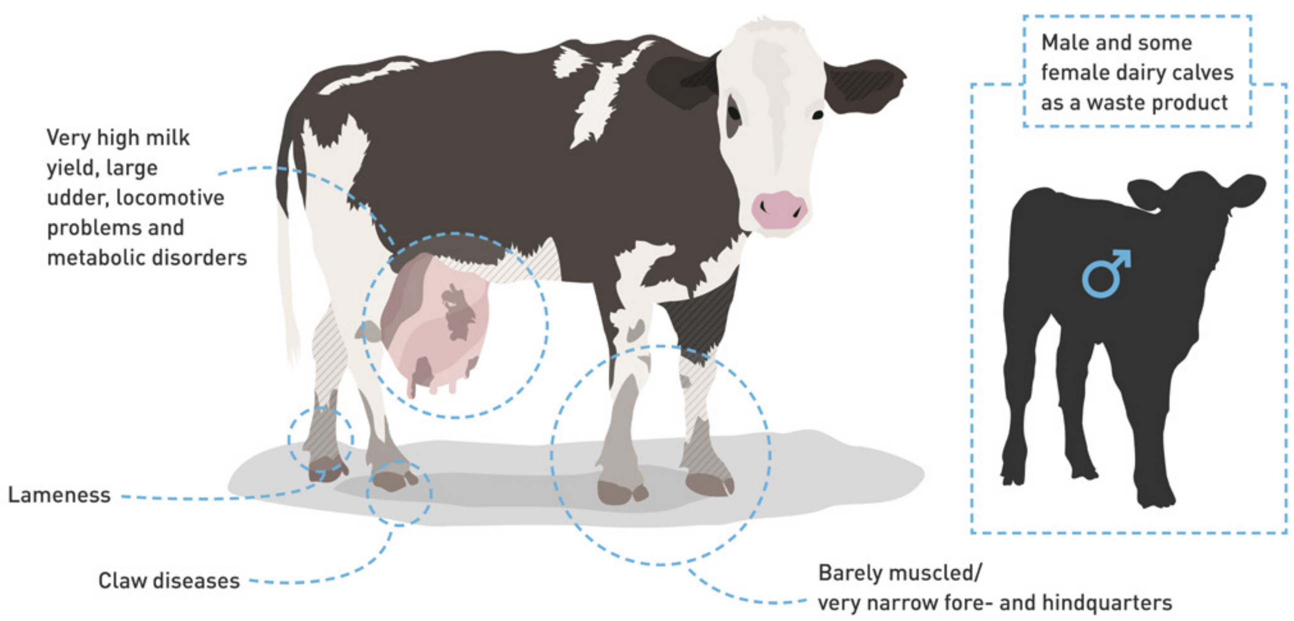
Figure 5: Characteristics of Torture Breeding in cattle, used for milk production



The high incidence of illnesses means that the animals often suffer pain and are usually removed from the production process early and therefore have too short a lifetime. But this short lifespan and performance-related health disorders, also called production diseases, are accepted for economic interests.

In addition, some of the female and all male calves of dairy breeds are of very low value to the industry. From a purely economic point of view they are "too expensive to raise" and no economic benefit can be made from them because of their low "meat yield." Thus, the very young, mostly unweaned animals are sold as quickly as possible, often abroad, where a short and cruel life awaits them. Even the industry speaks of the male calves as a "waste product" of the dairy industry.[14]

Also, another trend created by high performance breeding is the apparent reduction in genetic diversity within the dairy herds. For example, reports show a fourfold increase in the inbreeding coefficient of dairy cows in the US from 1970 to 1998.[7,8]

Depending on the breed, dairy cows that are not fed concentrates can produce a milk amount of maximum 6,000 Liter[92] and as high-yielding breeds suffer of high energy mobilization[55], persistent lactations and longevity should be envisaged as breeding goal instead of short-term extreme high-yielding lactations. Considering the rising risk of several health problems with rising milk yield, it is necessary, from an animal welfare point of view, to aim for rather lower yields and more robust, healthy animals that are not permanently at their physiological limit.

Dual purpose breeds that are fed to almost 100% roughage-based (grass, hay, silage) and only receive a little, very limited amount of concentrate feed, will usually not produce a milk yield beyond their physiological capacity. A roughage-based feeding, combined with a very limited concentrate feeding would probably exclude certain breeds with extreme high-yields, such as "Holstein Friesian", since those animals cannot perform well without high amounts of concentrates. To compensate for poor quality roughage, the recommendation of the Forschungsinstitut für biologischen Landbau (FiBL) is a maximum of 10% concentrated feed[68], while Bio Suisse only allows 5% concentrates since 2022.[51]

To conclude, a dairy cow that is not high-performance, but of a dual-purpose breed, would have a milk yield not higher than about 5,000 Liter and would be fed almost 100% roughage/grassland-based. Cows with a lower milk yield have a lower risk of the above-mentioned health problems, thus, longevity of the cows would be supported. Inseminating the cows at a later stage and prolonging the inter-calving period would help cows to recover from pregnancies, produce less surplus calves and could reduce transports and exports of surplus calves[58].

FOUR PAWS Demands to prevent torture breeding in Dairy Cows

- Breeding-, keeping- and import- ban for torture bred/ high performance breeds
- Shift to and use of old and dual-purpose breeds that are mainly fed by nearly 100% roughage/grass/alfalfa/hey-based and with an average maximum milk yield of 5.000 kg/ year
- Regular evaluation of animal-based welfare indicators, milk production shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

3.2 Beef cattle

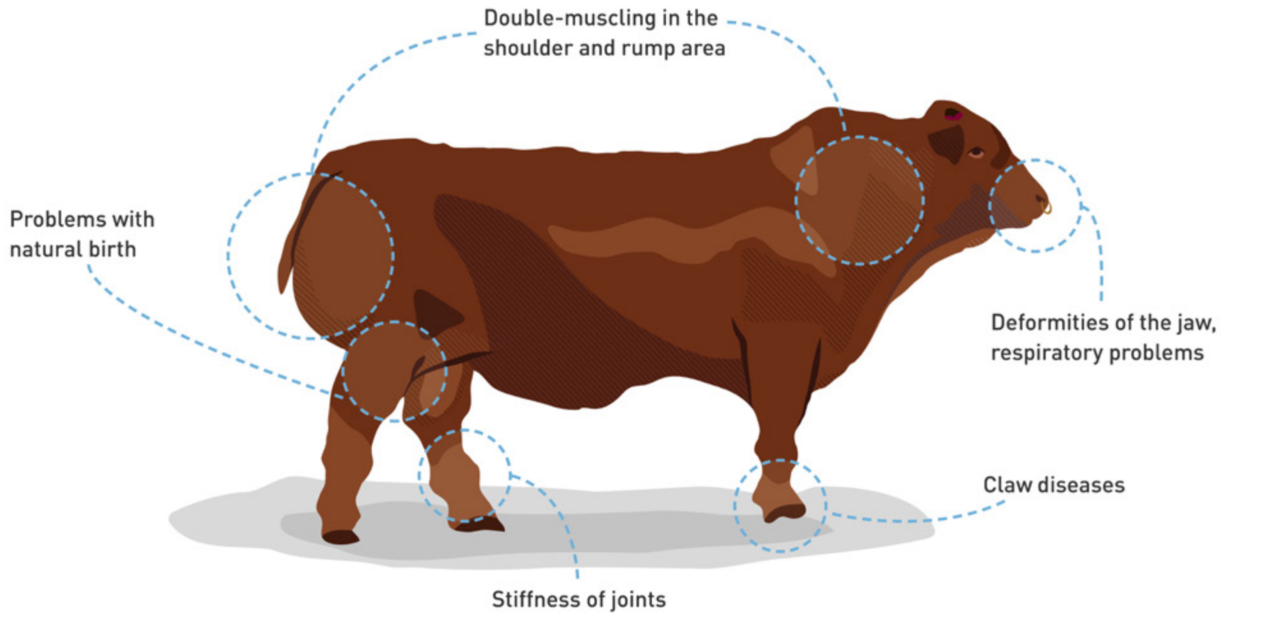
The prevailing breeding objectives, such as good muscling and high daily weight gains directly cause health problems in cattle (e.g. organ damage, bone and joint problems). Breeds like the "Belgian Blue" are bred for 'double muscling' (DM). Due to a gene mutation, the factor to inhibit muscle growth is switched off. Consequently, natural birthing for these animals is rarely possible and C-section is almost always necessary.[15,16] Also, several internal organs have a reduced size in DM animals compared to non-DM animals[17]. There is a reduction on the weights of some organs (% reductions) for spleen (±30%), liver (±20%), heart (±20%), blood (14 and 20%, respectively) and lungs (10 and 24%, respectively), compared to non-DM bulls[17]. Also, deformities of the jaw, over-enlarged tongues, respiratory, heart and reproductive problems occur, as well as limb problems, stiffness of joints and high incidences of inherited spastic paresis[63]. Double muscling is an inherited condition that occurs in several cattle breeds. It is highly prevalent in some breeds, i.e., the "Belgian Blue" and the "Piedmontese".[18] The white-blue Belgians were also further bred in Denmark under the name 'Danish Blue'.[41]

Figure 6: Torture breed 'Belgian Blue' with double-muscled hindquarter

Breeding for high performance in beef cattle causes, among other things:

- Metabolic disorders
- Claw problems
- Lameness
- Fertility and birthing problems
- Deformities of the jaw, over-enlarged tongues
- Respiratory, heart and reproductive problems
- Limb problems, stiffness of joints
- High incidence of inherited spastic paresis

Figure 7: Characteristics of Torture Breeding in cattle, used for meat (the animal in figure 2 shows a cut tail, which is done in some countries but is not natural for the animals)



FOUR PAWS Demands to prevent torture breeding in Beef Cattle

- Breeding-, keeping- and import- ban for torture bred/ high performance double muscled breeds such as "Belgian Blue" and "Piedmontese"
- Shift to and use of dual-purpose breeds without torture breeding criteria, fed by nearly 100% roughage/grass/hey-based
- Regular evaluation of animal-based welfare indicators, weight gain shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

4. Poultry

4.1 Laying hens

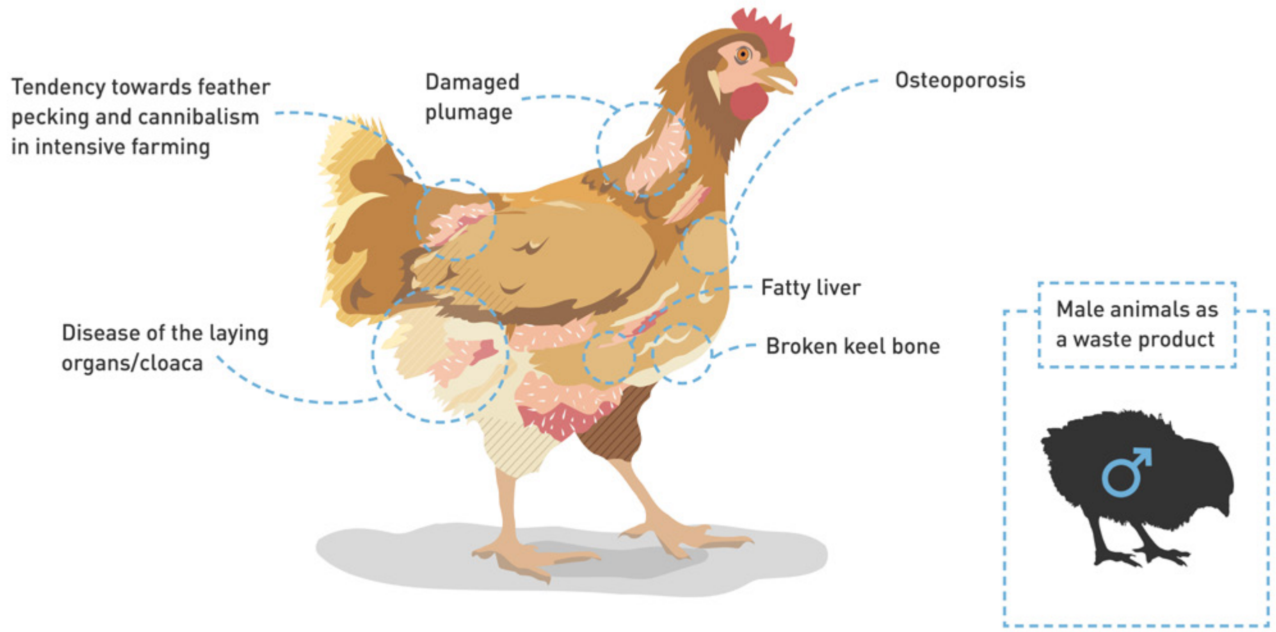
The ancestor of domestic chicken is a wild chicken called the Red junglefowl (Gallus bankiva), which originates from South-East Asia. It lays around 20 eggs a year[64]. In 1950, a hen in Germany laid about 120 eggs per year[90] and about 137 in the US[91]. Due to the one-sided breeding for laying performance, the number has meanwhile been increased to about 330 eggs per hen per year[54]. Due to the high demand for calcium, which must be mobilized from the hen's own body reserves to form the eggshell, laying hens often suffer of osteoporosis[52] and up to 90% of all laying hens in today's common multi-level housing systems suffer sternal lesions and fractures[21–23]. A Swiss study found that 97% of laying hens suffer of broken keel bones[73] and a Danish study found frequencies of broken keel bones in 85%. Additionally, due to the high performance of laying hens, inflammation of the fallopian tubes is a commonly occurring problem[24] as well as fatty liver syndrome and much more.[20] In addition, the very high laying performance favours behavioural disorders such as feather pecking and cannibalism as a stressor.[88]

Breeding for high performance in laying hens causes, among other things:

- Osteoporosis
- Keel bone deformities and fractures
- Broken bones
- Inflammation and/or diseases of the fallopian tubes and laying organs
- Fatty liver syndrome
- Tendency to feather pecking and cannibalism (in intensive farming). Consequently, beaks are routinely shortened.

Figure 8a und 8b: Torture Breeding in chicken, used for egg production

Figure 9: Characteristics of Torture breeding in chicken, used for egg production



These high-performance laying hens don't live much past 1.5 years as their economic use is seen to be not high enough after the first laying period. With about 4-5 months they start laying and are usually kept at a 12-months laying period.[53] Even though laying hens could reach an age of about 8-15 years[56] the animals are slaughtered after the 12-month laying period and sold as cheap soup chicken. Due to the extreme breed with a strong focus on intensive egg production the bodies of these so-called "spent" laying hens are usually extremely emaciated and therefore of little economic value for the meat industry. This results in bad animal welfare pre and during transport and slaughter. As there is no interest of the meat product as such, slaughterhouses with cheap labour costs are often centralised in certain countries in the EU, resulting in long distance transports cross border. The animals regularly suffer of dehydration and food deprivation during these times and numerous animals die during transport.

For the few corporations worldwide, that breed these so-called laying hybrids used today, the focus on egg yield, which is economically advantageous for the industry, lead to the mass killing of male chicks as they are completely worthless for the egg industry. Due to the one-sided breeding for laying performance, males do not gain weight in an economically efficient way, so for the industry they are seen not suitable for economic fattening and are therefore killed right after hatching by maceration or CO_2.[24,25] In some countries, where the killing of male chicks is prohibited, the chicks are kept or transported abroad for meat production.[69]

On organic farms, breeds with high laying performance are common, one reason for this is that the egg yield is the driving economic factor, but another reason is, that there are hardly other breeds available.[87] Thus, also on organic farms, laying hens suffer of the same above mentioned health problems. There is an institution, called "Ökologische Tierzucht GmbH" (ÖTZ),[89] that was established to breed alternative poultry breeds for organic farms. The aim is to "create" a dual-purpose breed where the female can be used for egg production and the male can be used for meat production. Nevertheless, egg performance of breeds that are offered by the ÖTZ, still have a relatively high egg performance with 180-230 eggs per year[85], compared to the 118 eggs laying hens laid in 1955. Knowing that health problems are correlated with the yearly amount of eggs produced per hen and aiming at higher health status and longevity, it is clear that the egg production must be decreased. Four Paws sees an egg production of a maximum of 150 eggs per hen per year as a necessary limit to achieve healthier animals.

FOUR PAWS Demands to prevent torture breeding in Laying hens

- Breeding-, keeping- and import- ban for torture bred/ high performance laying breeds
- Shift to and use of old and dual-purpose breeds with an average egg production of less than 150 eggs per year
- Regular evaluation of animal-based welfare indicators, egg production shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

4.2 Broiler chicken

Due to breeding for maximum meat production, broilers suffer from numerous physical but also psychological ailments throughout their lives. For decades, the breeding objective has been to maximize genetic growth potential. Extreme selection for high meat amount is associated with increased susceptibility to disease, especially of the skeletal and cardiovascular systems. This results in behavioural changes in locomotion and comfort behaviour, which, since they can no longer be performed in a species-typical manner (e.g. perch), lead to further suffering in the animal.[19]

The increasingly heavy thoracic muscle and the resulting abnormal leg positions and lameness lead to animals that are hardly able to move towards the end of their lives. As a result, they sit 90% of the time at the end of the fattening period and behaviours appropriate to the species, such as perching on a branch to sleep or flattering, are no longer possible. Due to the high weight gain, the animals rest more than normal, which causes damages and inflammations at the breast, the so-called breast buttons and breast blisters.[19,26,27]

Another damage is the so-called hip dysplasia, a type of maturing disorder of the joint socket that can lead to hip dislocation. The joint head then slides out of the socket - which is extremely painful. All of this breeding-related damages mean that some animals can no longer walk at all and are therefore unable to reach drinking troughs and feed. This can lead to animals dying of thirst. Or these animals are killed by the livestock owners who walk through the barn in the morning when they are found. High mortality rates are firmly factored in. If you consider that up to 5% losses are calculated[103] in a barn with 40,000 animals, that is 2,000

animals that do not even survive the 42-day fattening period. Broiler farmers usually order more animals than the allowed stocking density at the end of the fattening period, expecting this amount of animals to die before reaching slaughter age.[105]

Another problem is constant feeling of hunger in parental herds, the so-called broiler breeders. Animals that have been selected for fast growth rates are indirectly selected for a huge appetite, which is associated with increased nutritious requirements and thus feed consumption.[28] Therefore these "parental stock" animals are feed restricted, which has negative effects on the birds welfare. The animals suffer chronic stress resulting from hunger, but also, if breeder animals eat to satiation, they will become obese and have health problems.[29]

Figure 10: Torture breeding in chicken for meat production.

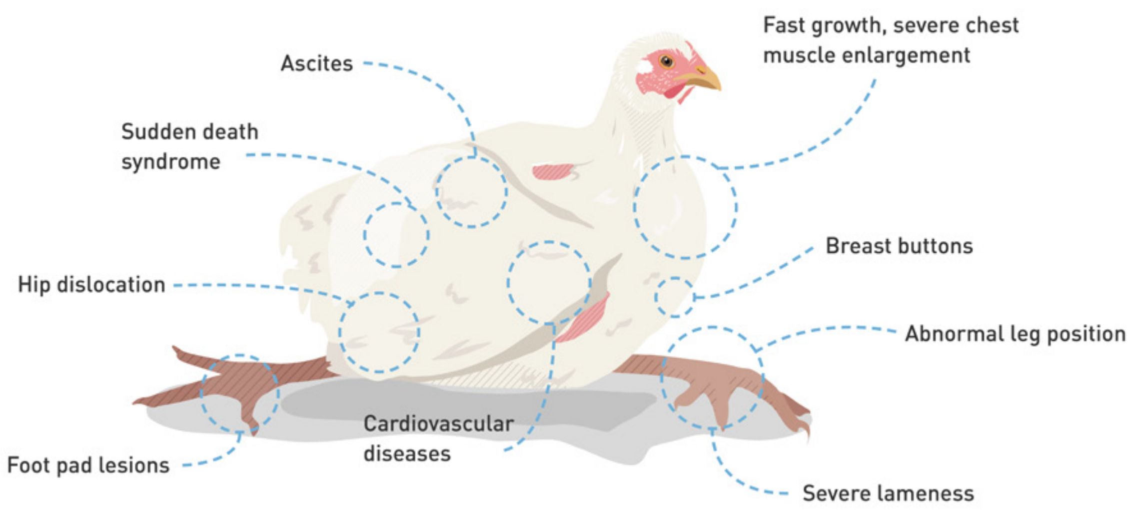
Figure 11: Chicken for meat production.

Figure 12: Chicken for meat production.

Breeding for high performance in broilers causes among other things:[30]

- Painful joint deformities
- Hip dislocation
- Abnormal leg positions and lameness
- Cardiovascular diseases
- Ascites
- Contact dermatitis, foot pad lesions
- Sudden death syndrome

Figure 13: Characteristics of Torture Breeding in chicken, used for meat



In poultry breeding, there is a general problem that the animals used in agriculture almost all come from large and powerful breeding companies. The poultry industry has standardised the vertical production chain and thus has everything in their hands, from rearing to feed, fattening and slaughtering.[81, 82, 83] Whereas original "old" and more extensive breeds are mainly kept and raised by hobby farmers.

To reduce the aforementioned breeding-related suffering of the animals, it is essential to lay down maximum daily weight gains. According to Demmler (2011)[94] this has been done by some label programmes such as the Swiss KAGfreiland label (2008), and Bio Suisse (2010) or the German Demeter association (2009) that put a threshold of a maximum daily weight gain of 20 g, 27,5 g or 35 g respectively. An association for organic animal breeding, called "Ökologische Tierzucht GmbH" (ÖTZ) is already using dual purpose breeds with a daily weight gain of 23 g on average.[99] Due to the fact that dual purpose breeds are the recommended standard of FOUR PAWS, our demand refers to the breeds mostly used and recommended by the ÖTZ with a daily weight gain of 23 g on average.

FOUR PAWS Demands to prevent torture breeding in Broiler chicken

- Breeding-, keeping- and import- ban for torture bred/ high performance breeds
- Shift to and use of old and dual-purpose breeds that do not gain more than 23 g per day on average
- Regular evaluation of animal-based welfare indicators, weight gain shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

4.3 Turkeys

The high demand for turkey breast meat, which is known as particularly "healthy" has devastating consequences for the animals. Breeding for enormous pectoral muscles and rapid weight gain within a few weeks of life causes extreme stress and health problems in the animals. The juvenile skeleton cannot adequately support the enormous increase in meat, and internal organs cannot keep up with the growth. Nowadays, a turkey has reached the final slaughter weight of about 23 kg at the age of about 20 weeks. In comparison, in 1965, the weight of a turkey was about 12 kg at the age of 22 weeks.[31] Some review reports in the QUEN Database report that turkeys had final weights just about 9.45 and 6.75 kg in 1966 or 10.27 and 7.27kg in 1972.[95]

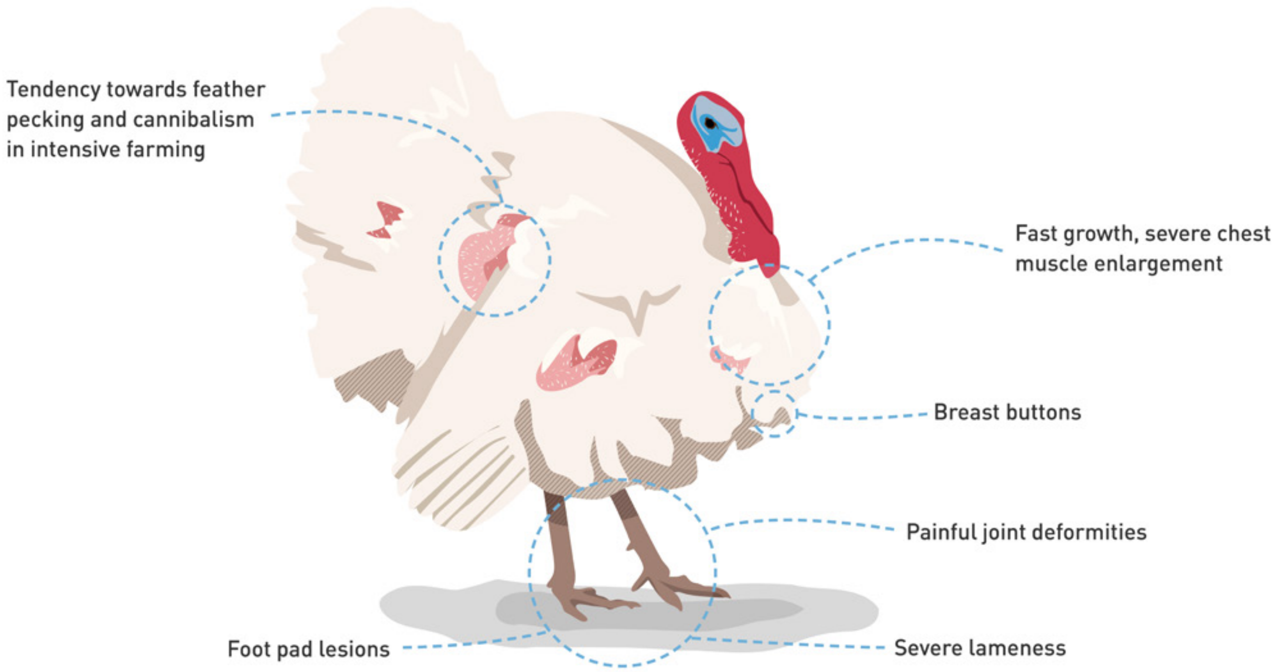
In commonly used turkey breeds there is a genetic-related phenomenon, called early flip over syndrome.[45] Some day-old turkeys tend to not be able to stand upright. They flip over and struggle, not being able to turn back over. These animals are usually killed by the farmer. High mortality rates are already calculated in the production chain as percentages,[101] e.g. 10-15% in turkeys and overstocking at the beginning of the raising period is normal business, expecting numerous animals to die before reaching the age of slaughter. At the end of the "fattening period" it may also happen that turkeys fall on their back during mechanical loading for transport to slaughter and not being able to turn back over anymore. These animals die within seconds due to their heavy weight.

Figure 14: Torture Breeding in turkeys for meat production

Breeding for high performance in turkeys causes, among other things:

- Painful joint deformities
- Cardiovascular diseases
- Abnormal leg positions and lameness
- Tendency to feather pecking and cannibalism (in intensive farming). Consequently, beaks are routinely shortened.

Figure 15: Characteristics of Torture Breeding in turkeys, used for meat



The increasingly heavy thoracic muscle and the resulting abnormal leg positions and lameness mean that the animals hardly move at all towards the end of their lives. Behaviour appropriate to the species, such as perching on a branch to sleep, is no longer possible as a result.[15,32]

Due to the many animals lying in damp bedding, inflammations of the breast and abdomen are common. What many people also do not know: Fattening turkey breeds are no longer able to reproduce naturally. The males would injure the females due to their abnormally large pectoral muscle. These animals are bred by a few corporations worldwide and must be reproduced through artificial insemination. The short life of a turkey is pure martyrdom.[33]

A study, comparing daily weight gains of domestic and wild turkey strains over a time span of 21 weeks (147 days)[97] found that domestic turkeys grew at a higher rate (140 g/day) and reached over 3 times the body mass of wild birds that only gained 50 g/day. This means that a daily weight gain of 50 g in wild strains seems to be natural, considered over a time span of 21 weeks. The "Ökologische Tierzucht GmbH" (ÖTZ) uses the so-called "Robustpute", a strain that has a daily weight gain of 35 g on average (31 g for the female turkeys and 40 g for the male turkeys), measured over a time span of 30 weeks (210 days).[100]

Keeping this in mind the upper limit for domestic turkeys should not exceed 35 g/day over a time span of 30 weeks, which is the minimum time a turkey should live.

FOUR PAWS Demands to prevent torture breeding in Turkeys

- Breeding-, keeping- and import- ban for torture bred/ high performance breeds
- Shift to and use of old and slower growing breeds that do not gain more than 35 g
- Regular evaluation of animal-based welfare indicators, weight gain shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditionsBreeding ban for high performance breeds

5. Pigs

5.1 Sows and piglets

The number of piglets per breeding sow per year is an economic parameter which has been continuously increased.[38] Meanwhile, sows often already give birth to more piglets than they have teats.[75] Litter sizes of up to 20 live born piglets per parturition are not uncommon.[76] One has to keep in mind that such published numbers do not include the number of still (dead) born piglets, that come on top of this large number of piglets that grow in the body of the sow. Piglets that are born at the end of parturition are more likely to be stillborn than the ones that are born first and a disproportionate increase in the length of parturition can be observed in highly fertile sows.[75] As a result of suckling competition for teats large litter sizes increase the incidences of injuries in the piglets faces, decreased weight and increasing loss rates of suckling piglets.[59]

Large litter sizes result in high numbers of underweight piglets that are either killed or must be reared artificially at great expense. On sow farms with highly fertile sows, it is common that every morning during the daily animal inspection, weak piglets or piglets weighing less than one kilogram are killed. This killing is often not even done professionally[77] or it is not done at all, and piglets are left to die.[78] The constantly increasing "performance requirements" put a strain on animal health. Studies showed a positive correlation between litter size and diseases in terms of sow agalactia, sow disease occurrence, prolonged farrowing duration and birth interventions, different nest building behaviour and postpartum maternal behavior.[60, 57, 61] in addition to this, due to the breeding on massive weight gain, breeding sows suffer a chronic stress by hunger[29], as they are to be feed restricted.

A study showed that from a litter size of 12 piglets, on average one piglet per litter receives no milk during a milk flow phase, even if sufficient functional teats are available, as in the first few days of life stronger piglets may claim more than one teat per suckling cycle for themselves and / or the sow's teats are sometimes not easily accessible for the piglets.[79] It is said that "the constant number of surviving piglets at the time of weaning suggests that 10 to 11 piglets could be close to the upper limit that the domestic sow is capable of taking care of." Valencak (2012) found that in nature usually only half as many young are born as the mother has teats and that wild boars have 8 teats and usually give birth to 4 young.[86]

5.2 Fattening pigs

Both, breeding and fattening pigs are affected by the many consequences of breeding for high performance, with the goal of producing as much lean meat as possible. Over-selection for production traits has caused animal welfare problems such as tail biting in pigs, and overly aggressive animals.[29]

The demand for lean meat is constantly increasing. For pork production, this means that animals were "adapted" to meet the demand. Breeding for a high lean meat content, as well as high daily weight gains lead to disorders of the cardiovascular system and pathological joint changes.[34,35] Nowadays, daily weight gains of 1277 gram are common108 and fattening pigs reach the slaughter weight of about 110 kg at an age of about six to seven months, whereas in the 1970s pigs final weight was 90 kg.[36,37] The strong focus on high lean meat percentage resulted in myopathies (stress sensitivity), degeneration of muscles, cardiovascular disorders and a high risk for death.[46] The responsible defective gene for higher lean meat percentage is prominent in breeds with high growth rates and a high abundance of meat. Those breeds, e.g. "Pietrain", especially tend to develop myopathies. Regardless "Pietrain pigs" are the most common breed used on the boar's side for the production of fattening pigs.

Torture Breeding of farmed animals and FOUR PAWS demands
Pigs

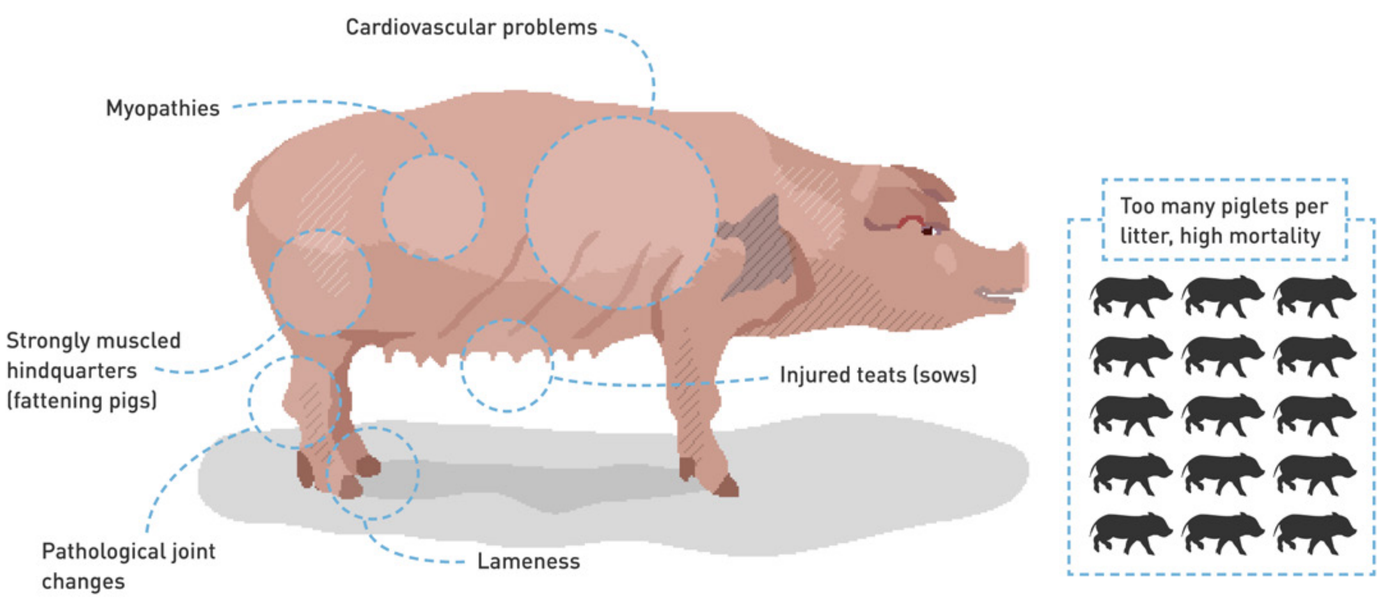
High performance breeding in pigs causes amongst other things:[39,59,65]

- Cardiovascular problems
- Pathological joint changes
- Myopathies
- Piglet suffering and higher mortality due to too large litters
- Compromised sow health due to large litter sizes

Figure 16: Torture breeding in pigs

Figure 17: Torture breeding in pigs

Figure 18: Characteristics of Torture Breeding in pigs



FOUR PAWS Demands to prevent torture breeding in Pigs

- Breeding-, keeping- and import- ban for torture bred/ high performance breeds that are non- stress tolerant, such as "Pietrain" and on breeds that bare a high risk on developing myopathies, cardiovascular disorders as well as on highly fertile sow breeds
- Shift to and use of old and slower growing breeds and of sows that give birth to a maximum of 10 piglets on average
- Regular evaluation of animal-based welfare indicators, litter size and weight gain shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare.
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

6. Summary

The above-mentioned animal welfare problems and the scientific perspectives collectively suggest that the majority of farmed animals suffer of the consequences that are caused by the breeding on high yields.

The animals suffer from lameness, bone fractures, abnormalities of the extremities, enormous weight gain, which in turn leads to skeletal abnormalities (animals bred for fattening), inflammation of the milk-producing organs (dairy cows) and the laying organs (laying hens). Many newborn animals are killed because of their weight or sex (e.g. piglets or male chicks of laying breeds) or are considered worthless (e.g. male calves of dairy cows).

Breeding efforts in farmed animals should focus on animal welfare, longevity, fitness and health, rather than high yields. The term "high performance breeds" should be replaced by "torture breeds".

The described health problem, caused by torture breeding are science-based, and so are the proposed demands by FOUR PAWS.

FOUR PAWS DEMANDS to end torture breeding:

- Breeding-, keeping- and import- ban for torture bred/ high performance breeds that are likely to suffer of certain consequences of high yields
- Consequent implementation and enforcement of such bans/prohibitions
- Shift to and use of old, more extensive breeds that stay below a certain performance limit
- Regular evaluation of animal-based welfare indicators, performance shall not have a negative effect on the welfare or the health of the animals
- Different breeding goals (for breeding companies): longevity, health, fitness, animal welfare.
- 3 R principle (less animal "production", less "performance/yield", but the animals that are existent should have a good, healthy life in animal welfare friendly conditions

Table 1: Summary of FOUR PAWS Demands to prevent Torture Breeding

	Yield Limits	Management-Based Parameters and type of breed
Dairy cattle	Max milk yield <5000 Liters	Minimum concentrate feed, dual purpose
Beef cattle	Natural birth (no caesarean section)	No use of double-muscled breeds (ban*)
Laying hens	Laying performance <150 eggs	Appropriate feeding, dual purpose breeds
Broilers	Max daily weight gain: 23g	Appropriate feeding, dual purpose breeds
Turkeys	Max daily weight gain: 35g	Appropriate feeding, slower growing breeds
Pigs	Maximum average litter size: 10 piglets	Appropriate feeding, slower growing breeds

*a full prohibition on keeping and reproduction of double-muscled breeds (incl. hybrids)

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About FOUR PAWS

FOUR PAWS is the global animal welfare organisation for animals under direct human influence, which reveals suffering, rescues animals in need and protects them. Founded in 1988 in Vienna by Heli Dungler and friends, the organisation advocates for a world where humans treat animals with respect, empathy and understanding. The sustainable campaigns and projects of FOUR PAWS focus on companion animals including stray dogs and cats, farm animals and wild animals – such as bears, big cats and orangutans – kept in inappropriate conditions as well as in disaster and conflict zones. With offices in Australia, Austria, Belgium, Bulgaria, France, Germany, Kosovo, the Netherlands, Switzerland, South Africa, Thailand, Ukraine, the UK, the USA and Vietnam as well as sanctuaries for rescued animals in eleven countries, FOUR PAWS provides rapid help and long-term solutions.

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