

Financial Institutions' Guide to Farm Animal Welfare





Emerging Markets Investors Alliance



This guide is for financial institutions and those that work for financial institutions.

The goal of the guide is to educate readers about animal welfare and the key animal welfare risks that companies are facing globally, as well as provide some guidance and insight for actively engaging with companies along the food supply chain. Excluding animal welfare from investment policies and procedures has significant risk and return implications.

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Financial institutions and animal welfare

Poor animal welfare policies can have significant risk and return implications.

Poor animal welfare policies or lack of could demonstrate or lead to:

- Regulatory compliance issues
- Reputational damage
- Loss of consumer support/fidelity
- Loss of product quality
- Loss of market access
- Poor governance practices

Animal welfare and ESG

Animal welfare considerations align with each element of environmental, social and governance (ESG) investment mandates, yet they are often overlooked.

Animal agriculture is big business, from producing animals and animal products to all of the many types of companies that procure those products and sell them to the final customer. While many financial institutions that invest in animal agriculture have ESG policies, most fail to address the most significant threats to the environment, animal welfare or even public health. To name a few, animal agriculture is responsible for at least 16.5% of all manmade greenhouse gases - more than all forms of the transportation industry combined;¹ the industry has been identified as a primary driver of biodiversity loss; zoonotic disease transmission; deforestation, air, water and soil pollution, and requires significant land and water use through dependence on animal feed crops.

Sectors/industries that have animal welfare risks

Hospitality (hotels, cruise lines, etc.)

- Food service Food processing
- Grocery stores Food production
- Packaging/logisitics/transportation

Catering



"Animal factory farming is exposed to at least 28 environmental, social and governance (ESG) issues that could significantly damage financial value over the short and long-term."²

Animal welfare links to ESG

Environmental

 Environmental impacts and regulations affect the animal agriculture market as a whole (indirectly affecting animal welfare)

Social

- Increased consumer demand for higher welfare products, alternative proteins and locallysourced products
- Global health pandemics and public concerns about food safety
- The moral argument it's the "right" thing to do
- Workforce health, safety and training

Governance

- Failure to properly assess and manage animal welfare means not acting in the best interest of investors and shareholders
- Failure to report and monitor animal welfare signals poor traceability and management

Financial institutions and animal welfare

How financial institutions can influence animal welfare

Investment decision and analysis

- Creating or enhancing policies regarding animal welfare and animal agriculture
 - Set specific requirements (not just the Five Freedoms)
 - Invest in alternative proteins or higher-welfare systems
- Screening negative and positive
- Integrating: Incorporate into valuation and modeling
- Divesting

Due diligence and investment agreements

- Assessing/requiring in-depth documentation on animal welfare policies
- Incorporating into investment agreements
 - Investment agreement examples
 - "We will give you \$x if you agree to phase out crates by 2025"
 - Required use of animal welfare certification
 - Required reporting and monitoring regarding animal welfare

Active ownership and engagement

- Proxy voting and shareholder resolutions
- Engagement and support



Example animal welfare policy

"[FINANCIAL INSTITUTION] recognizes that animal welfare is an essential element of sound ESG and sustainability practices, and that a lack of animal welfare policies leads to material risk and return implications.

As such, we will not make any new investments in animal production systems that use intensive confinement systems with cages for egg-laying hens or gestation crates for breeding pigs. We will not invest in companies that do not implement an animal welfare policy guided by the FARMS Initiative's Responsible Minimum Standards (RMS).

We will engage with current investments (if applicable) to commit to transition to cage- and crate-free housing systems, as well as progressive implementation of the FARMS Initiative Responsible Minimum Standards. We will divest if investment companies continually do not engage or refuse to transition."

Please note: this example is not all encompassing. An animal welfare policy should include additional details, as well as guidelines for animal testing, wildlife protection, plantbased alternatives and the exclusion of fur farming. HSI can provide additional support.

Top-line animal welfare concerns globally

What is animal welfare?

According to the World Organization for Animal Health (OIE), animal welfare is the physical and mental state of an animal in relation to the conditions in which it lives and dies. Animal welfare is a continuum from poor to good. Animals in a good state of welfare are healthy, comfortable and have what they need, while animals on the other end of the spectrum may be suffering from pain, fear or distress.

Primary welfare risks to be considered

- Space limitations and overcrowding
- Breeding and genetics
- Early weaning
- Barren and unsuitable environments
- Transport
- Slaughter
- Painful procedures

Inappropriate diets

- -
- Compliance and transparency

How welfare is scientifically assessed

Animal welfare is a scientific term that can be objectively measured in the following categories:

- Productivity
- Health
- Physiology
- Behavior

Animal product producers tend to focus on productivity, and do not always adequately apply the other types of measures.

The starting point - cages and crates

Farm animals endure a number of standard industry practices that result in poor animal welfare. While all are important and merit attention, the global animal protection movement has strategically focused on a few key animal welfare problems, including the most severe and chronic practices, in order to achieve transformational impact. The starting point is animal cage and crate confinement, because it is a characteristic of farming practices around the world, affecting millions of animals and causing an extreme degree of poor welfare over a long period of time.

Confinement-based systems include gestation crates for sows and cages for laying hens. There is very clear scientific evidence demonstrating these systems negatively impact animal welfare.





Pig production overview

Production cycle



Above is a simplified example of the pig production supply chain. This can differ throughout the world and there are often intermediaries throughout the supply chain.

Additionally, in many parts of the world, large industrial animal agriculture companies are vertically integrated and own/control several steps along the supply chain.

Vertical integration

A business model where one single company or firm combines many (or all) stages of production, owning, for example, not only the animal rearing but also the breeding operations and feed production. Vertical integration is characteristic of egg production and pork production. Pork producers may own the slaughter facility as well as the feed, breeding and growing facilities for pigs. Egg producers may own flocks of laying hens, breeding flocks, hatcheries, replacement hens (pullets) and the packing, further processing and marketing of the shell eggs or egg products.

Industry consolidation

A pattern the world over where agricultural production is concentrated among a small number of large agribusiness firms. This is common for dairy, egg, hog, broiler chicken and fed cattle production, however cow-calf ranches (which supply feedlots for fed cattle production) are still largely independent. In the United States, the top 7 egg companies produce about onethird of total U.S. egg production.⁴

Contract production

In this model, independent producers raise the animals for a much larger company, which may also have its own production. The firm provides feed and technical assistance while the producers own the production site and facilities. This type of arrangement is characteristic of pork and chicken production, but not eggs or beef.

An overview of gestation crates

The majority of sows (mother pigs) are confined in gestation crates, stalls barely larger than their own bodies, during pregnancy, for 114 days. Group housing is a higher-welfare system that permits more freedom of movement, socialization and resting in more comfortable positions. However, some producers are still confining sows for 28-45 days during breeding, and only then releasing them into group housing pens.

A confined pig cannot perform its species-typical natural behavior, such as rooting, walking, or lying in an outstretched position, which has significant physical and psychological impacts.

Why are crates used?

Gestation crates are used to maximize profits at the expense of the sow's welfare; the more animals that can fit in a smaller space, the more profit per square foot. Crates are used to simplify management, feed each animal individually and prevent fighting among sows.

They are an entrenched production system that became the industry norm as farms became larger and more automated, and traditional animal husbandry was lost. Rather than working with and accommodating the natural behavior of the animals, confinement systems such as gestation crates prevent the complex, social interactions underlying the animals' natural biological drives. While management became easier, life for the animals became miserable.

Some companies are stating that they are crate free, but sows are still kept in crates for 28 days per pregnancy.

28 days per pregnancy...

28 days x 2.5 litters per year = 70 days in a crate per year

70/365 days in a crate per year

~ 20% of each year

If the time spent in farrowing crates is also considered, this figure is significantly higher.

Behavior of unconfined pigs⁵





Physical and psychological effects of movement restriction

Higher resting heart rate

Reduced muscle weight

Decreased bone density and bone strength

Abnormal behavior (stereotypic bar biting)

The higher welfare alternative to gestation crates

Group housing of sows

Farmers around the world successfully use group housing instead of gestation crates. In group housing pens, sows have space to move, socialize and adopt more comfortable resting postures. While there are many different group housing system designs, the best ones incorporate straw bedding for sows, which provides comfort and warmth, and is a form of environmental enrichment. Given the growing adoption and success of group housing systems on both large and small farms, there is increasing recognition that gestation crates are unnecessary and cruel.



Environmental enrichment for pigs

Benefits of group housing

- Additional space for the expression of natural behavior
- Room to adopt more comfortable lying postures
- Opportunity to express social behavior
- Opportunity to express choice of microclimate (e.g., sows can choose to rest in a warmer or cooler area)
- More space for healthy movement
- Opportunity to interact with environmental enrichment

Environmental enrichment is the enhancement of animals' enclosures with new or interesting objects, materials, layouts or resources that provide important outlets for behavior and improve animals' quality of life. Examples of enrichment for pigs include:

- Straw or other manipulatable fibrous bedding/rooting material such as hay, sawdust, peat, dirt, woodchips, coconut fiber, wood curlings (wood wool), shredded paper, bark/mulch, potting soil, spent mushroom com- post, hemp pellets, sand or other suitable substrate
- Outdoor access, especially with vegetation, range and pasture
- Vegetation and vegetables including swedes, tubers, grass, turf, silage, seaweed, herbs, sugar-beet pulp, coconut, whole peanuts, cabbage and fruits
- Rotating non-destructible enrichments (toys) including balls; rope; stones; hanging chains; rubber hoses and belts; traffic cones; large, strong dog toys; tires; rope, or cloth strips, as part of a program where objects are changed daily
- Food balls (hollow globes with holes from which treats fall out when pushed)

- Paper sacks and other disposable paper or cardboard materials
- Mineral blocks and sugar-mineral blocks
- Branches, logs, trees, railroad sleepers (railroad ties)
- Brushes mounted on a side-wall that can be used for scratching, rubbing and grooming
- Hiding boxes
- Alternative pen designs that offer multiple levels, mezzanine platforms, ramps or deep bedded pits, and partitions to divide pen space (which creates microclimate diversity and spaces for different types of behavior, such as resting or hiding)
- In hot climates, pig-operated showers and water pools

The movement to crate free production

Global policy change

Around the world, crate-free policies are increasingly being enacted. Including:

- A ban on gestation crate use starting 28 days after breeding in the European Union (EU);
- Complete gestation crate bans, limits or gradual phaseouts in ten U.S. states;
- A complete ban in New Zealand, in the process of being enacted;
- A phase out in the Canadian Code of practice by 2024;
- A voluntary phaseout by the pork production industry in Australia.

Major national and international companies are pledging to rid their supply chains of cages. These include iconic brands such as Walmart, Kraft-Heinz, Nestle, Barilla, Unilever and hundreds of others.

Because of the policy and market changes, crate-free pork production is taking off in the United States.

End the Cage Age in the EU

In 2018 and 2019, the EU "End the Cage" citizen initiative gathered over 1.3 million signatures. The initiative called on the European Commission to propose legislation that would end the use of cages. While cage confinement is already limited in Europe, this legislation would extend the prohibitions to furnished cages for egg-laying hens and eliminate the 28-day exception for gestation crate use in group housing systems for sows. The Commission signaled it would introduce legislation by 2023.

Countries with public policy progress or voluntary phaseouts of gestation crate use



Laying hens production overview

Production cycle





* Depopulation is a euphemism for the killing of the whole flock. In some countries, laying hens go to slaughter, but in most of the developed world, broiler chicken meat is so cheap that there is no market for "spent" egg-laying hens and they are gassed and either put into the landfill or composted on the farm.

Supply chain

Egg production

Processing/packing

Distributors

An overview of cages for laying hens

Around the world, most hens kept for egg production are confined to small, wire "battery cages." These enclosures provide so little space that the hens cannot stretch their wings, run or even walk more than a few steps. In these barren confines, nearly all natural behavior is prevented. The restriction of movement has real, physical effects on the hens including reduced bone strength.

In nature, hens spend over 50% of their waking time foraging (ground scratching and ground pecking, searching for edible seeds, vegetation and insects). In the afternoon they dust bathe to keep their plumage in good condition and as a natural remedy for preventing lice and mites in their feathers. When a hen is ready to lay her egg, she will move away from the rest of the flock to find a hidden nesting area. At night chickens roost, usually perching in a tree, safely out of reach from predators.

All of this natural behavior is prevented by confinement to battery cages.

Hen behavioral needs

- In animal behavior tests performed in a laboratory, hens will push through heavily weighted doors for access to a perch, demonstrating they will "work" to access a safe roosting place at night.⁸
- In laboratory behavior tests, hens will do more for a nest box than for food, even after 27 hours of food deprivation, providing clear evidence that an enclosed nesting space is important to a hen.9



Why are cages used?

Cages proliferated in the post-war era, in a push to industrialize agriculture to feed the masses cheaply. They permit the confinement of thousands—even tens or hundreds of thousands—of birds together under one roof. With the goal of "push button farming," feed and water delivery, manure removal, and egg collection is automated. However, in the developing world, eggs may still be collected by hand.

Producers initially found that because cages separated hens from their manure, the wire floors helped break the disease cycle and reduced mortality in large, crowded flocks.

Cage-free systems require a greater level of husbandry skill and management. Recent research has shown, however, that as farmers gain experience with the system, cage-free production can have mortality rates as low as that of cage systems.



Daily behavior pattern

Alternatives to cages

Instead of cages, modern aviary, barn and free-range systems are gradually becoming the norm. These systems permit much greater freedom of movement, include places for the hens to perch at night, enclosed nesting spaces and loose litter on the floor for foraging and dust bathing. They are built around the behavioral needs of the hens.

Aviary systems are commercially viable and permit the production of large volumes of cage-free eggs. Barn and free-range systems vary in size but are usually small or medium sized.

Aviary system

Aviaries are multi-tier systems with automated feed, water and egg collection.



Barn system



A barn, or floor system, is single-tired, usually with a partially slatted floor.

Free range

A free-range system combines an aviary or barn with outdoor access.





Instead moving to completely cage-free systems, some producers opted to install "furnished cages" (also called enriched or colony cages). These are simply larger cages equipped with perches and curtains to create a darkened nesting area. While better than battery cages, furnished cages fall short of welfare expectations. The lack of space is still severe enough to result in bone weakness, and there is no loose litter for foraging. There is also a lack of vertical space, which hens need to perch up off the ground.

The shift to cage free production

Global policy change

Around the world, cage-free policies are increasingly being enacted. Cage-free laws include:

- A ban on battery cages in Europe since 2012;
- Bans or gradual phaseouts in 11 U.S. States;
- A ban in New Zealand;

- A ban in Bhutan;
- A gradual phase out in Canada;
- Ongoing work toward a phaseout in Australia.

Corporate progress

Major national and international companies have committed publicly to phase out the use of cages for laying hens, many by 2025. These commitments are promises to external stakeholders (such as the public or shareholders) to improve brand reputation, mitigate supply chain risks and align with consumer expectations. As the deadlines approach, Humane Society International is working hand in hand with businesses and financial institutions to meet this goal. These include iconic brands such as McDonalds, Walmart, Kraft-Heinz, Nestle, Barilla, Unilever and hundreds of others.

Because of the policy and market changes, cage-free egg production is taking off in the United States.





The Five Freedoms

The Five Freedoms were first promulgated by the British "Farm Animal Welfare Advisory Committee" (now the Farm Animal Welfare Committee), a government advisory organization, which provides scientific expertise. The Five Freedoms are as follows:



By ready access to fresh water and a diet to maintain full health and vigor



Freedom from discomfort

By providing an appropriate environment including shelter and a comfortable resting area



Freedom from pain, injury or disease

By prevention or rapid diagnosis and treatment



Freedom to express normal behavior

By providing sufficient space, proper facilities and company of the animal's own kind



Freedom from fear and distress

By ensuring conditions and treatment which avoid mental suffering

While companies and animal producers often make claims about adhering to the Five Freedoms, this can be very misleading as there are many standard farming practices that are in clear contradiction to commonsense interpretations.

Freedom from hunger and thirst

Force molting of laying hens kept for egg production, which involves removing the feed completely or feeding a low nutrient diet for two weeks, stressing hens to such a degree that they stop laying eggs and molt their feathers quickly, is common practice. In some situations, water may also be removed for up to four days. Hens can lose 20% of their body weight during this process.

Feed restriction of female breeding pigs (sows) is routine. Pigs grown for pork production are bred to put on weight and grow quickly, but adult sows can become too heavy if permitted to eat to satiety. Because this can affect their productivity (fertility and ability to carry and birth piglets), they are commonly feed-restricted. They may receive only 50%-60% of their voluntary feed intake. Chronic hunger can lead to aggression, frustration and abnormal behavior, such as bar-biting (repetitive biting of the bars of the crate or pen), a sign of persistent psychological stress.

Feed restriction of broiler breeding birds is also routine. Like pigs in the pork production industry, chickens grown for meat are bred to put on weight. To prevent obesity and ensure production of fertile eggs, breeding flocks may be fed only every other day, leading to frustration and heightened aggression. Because hungry birds may begin to peck at each other, their beak tips are routinely amputated in a procedure euphemistically called "beak trimming."



During transport, most farm animals are deprived of feed and water. Cattle, pigs, and sheep may be trucked for many hours before they reach saleyards, feedlots, growing facilities or slaughterhouses. In the United States, by law, livestock can be transported up to 28-hours without feed and water.

Transport limits are not in place or may be even longer where calves are born on remote rangeland but fattened and slaughtered closer to urban centers, as is often the case in Canada and Australia.

Freedom from discomfort

Pigs are commonly reared on concrete, slatted floors, to facilitate manure removal from indoor confinement systems. Bedded lying areas are rarely provided. In Europe, some cattle-fattening operations are completely indoor, slatted floor systems as well.

In the production of foie gras, geese and ducks are force fed. The process involves placing a long tube down the birds' esophagi and pumping an unnatural quantity of food directly into their stomachs. Substantial scientific evidence suggests that force-feeding is uncomfortable, at the very least, and is the cause of pain, stress and fear as well. Ducks may pant intensely to vent the excess heat generated by their forced over-consumption of grain and the livers of force-fed birds enlarge to six to ten times their normal size.

Many intensive dairy operations use "free stall" barns, where cows can choose to enter a cubicle where they can eat or rest. However, to economize on space, there are often fewer free stalls than cows, leaving some individuals to stand or lie in the barren, concrete alleyway behind the stalls. Many older barns use tie stalls, where other than during their milking, the cows are tied up all day long.



Freedom from pain, injury or disease

Farm animals are routinely subjected to painful practices. For example, piglets and sometimes cattle may have their tails cut off; calves may have their developing horn buds burned off, cattle may be branded with hot irons, poultry may have their beak tips, toes and wattles cut off, and piglets, lambs and calves may be castrated without pain relief. Piglets may have sections cut out of their ears to identify each one individually.

There are viable alternatives to each of these practices. For example, the reason that piglets' tails are removed is to prevent injurious tail-biting behavior. While tail biting is indeed an animal welfare problem itself, the reason that piglets begin tail biting is boredom. In unenriched, barren environments, curious, active, playful young piglets begin to explore the only available options their pen mates. Tail biting, while multi-factorial, is best addressed by adding straw and other enrichment materials to prevent the abnormal behavior from developing in the first place.

Environmental enrichment can also be used to prevent abnormal feather-pecking behavior of laying hens, thus addressing the root cause of the behavior, and eliminating the need to cut off hens' beak tips. Because poultry are raised by the thousands, individual veterinary care is not provided.

To kill sick or injured baby piglets, it is common industry practice to use "thumping," blunt force trauma caused by swinging the animal by his legs, smashing his head into a hard surface.

Merino sheep, prized for their wool, are bred for the quantity and quality of their fleece. Australia produces most of the world's fine wool, but is also home to the blowfly, which can infest the breech area (hind end, under the tail) and cause lesions and infections. To prevent fly strike, producers practice "mulesing," which involves cutting strips of skin off the breech area of a young lamb. Despite the removal of large sections of skin, these sensitive animals rarely receive pain relief for the operation. There is, however, a viable alternative: breeding for "plain bodied" sheep, without the wrinkled breech area that blowflies find attractive.







Freedom to express normal behavior

Most intensive, indoor systems around the world do not provide farm animals with freedom to express natural behavior. Egg-laying hens are usually confined to "battery cages," small, wire enclosures that provide so little space the birds cannot even freely stretch their wings. Their complex natural behavioral repertoire includes dustbathing, ground scratching and pecking (foraging), perching and nesting, none of which is possible in a barren cage. Soon-to-be mother pigs are kept in "gestation crates," metal stalls so narrow they cannot even turn around for the entire length of their pregnancy, 114 days. They are prevented from wallowing, rooting and choosing a preferred lying location. Dairy calves are kept in individual "calf hutches" where they cannot run, play or interact socially.

The Five Freedoms can overlap. For example, feedlots not only prevent natural behavior (grazing), but because of this are also associated with stress, pain and disease. Feedlots are common for cattle and sometimes sheep in the United States, Canada and Australia. While cattle are adapted to graze throughout the day, feedlots confine the animals to dirt pens, often without shade, shelter or windbreaks. Concentrated diets for grain finished cattle can lead to digestive problems including acidosis, bloat, and if persistent, liver abscesses, and even the foot disorder laminitis. Feedlot cattle are also prone to a bovine respiratory disease known as "Shipping Fever," caused in part by the combined stress of weaning from their mothers and transport from their natal pastures to feedlots.

To facilitate the commercial production cycle, some farm animals are weaned very young. Calves in the dairy industry are often removed from their mothers within 24 hours of birth, to save the best milk for sale. Piglets are weaned at 2-4 weeks, far younger than their natural period of maternal dependence. There is no room for the natural bond between mother and young in highly intensive, commercial animal production systems and little opportunity for natural mothering behavior.

Intensive, indoor duck farming is prevalent in many parts of the world, especially eastern Europe and Asia. Ducks are waterfowl and would normally spend a great deal of their lives dabbling in ponds and streams and swimming, yet they are rarely provided with access to open water in industrial production facilities.





Freedom from fear and distress

Loading and transport of animals for slaughter is often a stressful experience, particularly if animal handlers are inexperienced. Reluctant pigs and frightened cattle and sheep will often balk at being moved by humans, whom they may perceive as predators, leading frustrated handlers to treat them roughly. Electric prods may be used to deliver painful shocks to force unwilling animals to move. While low-stress animal handling courses are often in place, not all companies require these and even when mandated, the quality of the training is variable. Once loaded onto trucks, the motion of a vehicle, mixing of unfamiliar animals, new situations and noise are all well-documented stressors.

For poultry, the process of "depopulation" is particularly problematic. Chickens and ducks grown for meat are caught and carried upside down by their legs, sometimes three or more in each hand as they are loaded into transport containers. Research demonstrates that inverting chickens into an inverted position is stressful.¹³

When poultry are sent to slaughter, an electrical water-bath stunning system is often used. Birds are unloaded from their transport crates and hung up-side down in shackles. They are then conveyed through a trough of electrically charged water, which is meant to immobilize them prior to passing by the automated knife. If they are not shocked into unconsciousness, they may be fully aware when their necks are cut, until they bleed to death. The next step in the process is to convey the birds through a tank of scalding hot water in preparation for defeathering. If a bird misses the automated knife, because he struggles in the shackles or is too short, he may die from drowning in the scald tank.¹⁴

The slaughter of pigs can be equally inhumane if they are stunned using carbon dioxide (CO2), an acidic, pungent gas with known aversive properties. The pigs squeal and try to escape as they are lowered into a pit of gas before they are rendered unconscious for slaughter.



To summarize

The Five Freedoms are NOT ENOUGH.

The Five Freedoms are a well-recognized framework, but one that is not self-executing or sufficiently precise, and therefore ineffective without specific guidelines. Many producers/food companies reference the Five Freedoms on their websites or sustainability reports but have weak or no specific policies or guidance regarding housing, management, transport or slaughter. For example, slatted floor systems and crates are common even though one of the freedoms is "freedom from discomfort by providing ... a comfortable resting area."

A company cannot meet the Five Freedoms if it is keeping sows in gestation crates or laying hens in cages.

Discerning between certification programs

The fox guarding the henhouse

Companies or animal producers may mislead investors and consumers by flaunting certification schemes that supposedly validate their excellence in animal welfare. Unfortunately, the majority of certification schemes are promulgated by the industry itself and fail to address key animal welfare issues. Some of these programs do not require every standard to be met, instead, they allow farms to be certified by meeting only a certain proportion of the requirements (e.g., 70%) and permitting bad practices to continue. In other cases, producers may point to certifications that do not actually include any animal welfare standards, but are rather focused on, for example, product quality or food safety (which are important, but irrelevant to animal welfare).

On the surface, some of these schemes may appear meaningful and important, but many of them are a case of the fox guarding the henhouse. Some certification schemes are even run by industry associations.

Meaningful and science-based

While there are many inadequate schemes, there are also some very comprehensive, meaningful programs. Humane Society International recommends the farm animal welfare certification programs listed below. In addition, we can review others on a case-bycase basis to ensure their requirements are aligned with global animal welfare concerns. The certification programs mentioned below are all science-based, prohibit intensive confinement systems (cages and crates) and go further by including dozens of additional animal welfare requirements. Every standard must be met, and they are administered by non-profit organizations aimed at protecting animals rather than promoting industry interests.

Recommended farm animal welfare certification programs:

Global Animal Partnership (G.A.P.)

Website link

- Label: Animal Welfare Certified
- Steps 4 and above for cattle acceptable
- Available globally

Beter Leven

Website link

- Label: Beter Leven
- Levels 2 and 3 acceptable
- Available in the Netherlands

RSPCA Assured

<u>Website link</u>

- Label: RSPCA Assured
- Available in European countries

Humane Farm Animal Care (HFAC)

Website link

- Label: Certified Humane
- Available globally

A Greener World

Website link

- Label: Animal Welfare Approved
- Available in the U.S.

HSI Australia

Website link

- Label: Humane Choice True Free Range
- Available in Australia

Productor do Bem

Website link

- Label: Productor do Bem
- Available in Brazil

The Five Freedoms - pigs



Below are the primary considerations and recommended practices for each of the Five Freedoms as they relate to pigs.

As with other ESG topics, a company cannot successfully implement change without a proper tracking and management system. When assessing animal welfare, it's important to continually ask, "How is this managed and tracked?" Without this, companies will likely state that they're "confident in their system" without any basis or data, and it's not like you can ask the animals how they're feeling.

Assessing animal welfare and implementing the requirements below are not just for producers and processors. Companies along the entire food supply chain should integrate animal welfare as part of broader sustainability efforts and responsible sourcing policies.

For pig producers to truly provide the Five Freedoms, they would need to address the following common production practices that typically fall short of welfare minimums.

What you should be asking or assessing¹⁵

- Breeding sows (who are often feed-restricted) should be provided with a sufficient quantity of bulky high-fiber forage, e.g., straw, in addition to their ration of concentrated feed
- Group housing systems should use a non-competitive feeding system, such as an ESF (Electronic Sow Feeding) system or feeding stalls
- Producers should manage aggression in group housing by providing plenty of space (at least 32.3 feet square or 3 meters square per sow), using static groups, providing extra feed at mixing, or other measures to accommodate the natural social hierarchy of sows
- Transport time should be limited to no more than 8 hours, when animals are deprived of feed and water

Freedom from discomfort

- Pigs should be provided with separate functional areas for lying, feeding and excreting
- At least 50% of the floor should be solid (not slatted)
- Floor space should include at least two thirds of bedded lying space
 - More space may be needed to prevent abnormal tail-biting behavior from developing in young pigs
- Temperature and ventilation should be controlled and managed to ensure pigs are within their comfort zone, which changes as they grow
- Sows should not be selectively bred to increase litter sizes to beyond the number a sow can raise

Freedom from hunger and thirst

The Five Freedoms - pigs

- Facilities for handling and restraining pigs should take into account the size and age of the animals and be designed, constructed and maintained to minimize risk of injury
- Tail docking (cutting off the tail with a sharp implement) should not be routinely carried out
 - Tail docking should only be used as a last resort when all other risk factor mitigation measures have failed to prevent the development of abnormal tail biting behavior
- There should be an effective management plan in place to prevent tail biting
- Piglets should not be surgically castrated (a routine procedure on farms throughout the world, usually performed without pain relief)
 - Instead, immunocastration should be used or intact (non-castrated) males must be raised
- Teeth clipping and grinding should not be routinely performed
 - Teeth clipping/grinding should only be used as a last resort when all other measures to avoid lesions on sows and piglets have been implemented without success
- There should be a management plan to prevent and address piglets injuring other piglets or sows
- Pigs must be stunned before slaughter using a non-aversive method that causes instantaneous unconsciousness lasting until death, or if unconsciousness is induced gradually, the process must be non-aversive
 - $\circ~$ High concentration CO2 gas should not be used for stunning pigs
- A biosecurity plan should be in place that is reviewed and updated at least annually
- All pigs should be provided individual veterinary care
 - $\circ~$ Sick animals should be separated from the group and effectively treated
- Electric goads or prods should not be used when catching, loading, unloading or moving pigs
 - $\circ~$ Pigs should be moved with a flat "pig board" rather than with a stick





Freedom from pain, injury or disease

The Five Freedoms - pigs

Freedom to express normal behavior

Table 1: minimum space allowances for growing pigs

Weight of pig (kg)	Minimum total area (m2)	
Up to 15 kg	0.42	
16-25 kg	0.56	
26-50 kg	0.65	
50-100 kg	0.93	
over 100 kg	1.20	

• Sow gestation stalls or crates must not be used

- Dry sows and gilts must be housed in groups and may only be kept in stalls or crates for a maximum of four days after insemination and must be given at least 3 meters square of floor space per individual
- Farrowing crates should not be used
 - If needed, the sow may be temporarily confined for a maximum of the first three days following farrowing to reduce the risk of piglet crushing
- Enrichment materials should be provided to allow natural behavior and enable proper investigation and manipulation activities for all stages of pig production
 - Ensure enrichment materials provided are acceptable and fit for pigs
 - Materials should be ingestible, chewable, destructible, regularly renewed to sustain interest, accessible to all pigs, clean and hygienic
- Weaners, fattening, and finishing pigs should be housed in groups
- Sufficient space should be provided for all pigs to stand, stretch, turn around, sit, engage in social behavior and/or lie down comfortably at the same time with defined areas for resting, feeding, activity and elimination
 - Minimum space allowances for growing pigs are set out in Table 1. At least two-thirds, but preferably three-quarters of the space allowed, must be bedded for better welfare
- Animals should be handled gently and never subjected to rough or abusive treatment
- Employees should be properly trained to fulfill higher welfare standards
- Reporting and monitoring of incidents should occur, with clear outlined consequences for violation (including involving the proper authorities depending on the incident)
- Pigs transported by sea must be accompanied by a veterinarian and must reach their destination within 24 hours
- Pigs must be fit for travel
 - Animals who are unfit for the journey include those who are sick, injured, unable to bear weight on all legs, blind, heavily pregnant, nursing young, or otherwise less able to withstand the stress of transport
- Sick or injured animals must be treated promptly. If they are unlikely to recover, and suffering, they should be euthanized
- Non-ambulatory pigs must never be transported, unless to a veterinarian for treatment
- Non-ambulatory pigs must not be dragged by their limbs, head or tail, and must only be moved if pulled on a purpose-built conveyance
- There should be an emergency plan in place to prepare for natural disasters (flood, hurricane, tornado, etc.) and other potentially catastrophic events such as fire, disease outbreak, supply-chain disruptions or failure of the ventilation system
 - Ventilation shutdown should never be option for depopulation

Freedom from fear

The Five Freedoms - laying hens

Below are the primary considerations and recommended practices for each of the Five Freedoms as they relate to laying hens.

As with other ESG topics, a company cannot successfully implement change without a proper tracking and management system. When assessing animal welfare, it's important to continually ask, "How is this managed and tracked?" Without this, companies will likely state that they're "confident in their system" without any basis or data.

Assessing animal welfare and implementing the requirements below are not just for producers and processors. Companies along the entire food supply chain should integrate animal welfare as part of broader sustainability efforts and responsible sourcing policies.

For egg (laying hen) producers to truly meet the Five Freedoms, they would need to address the following common production practices that typically fall short of welfare minimums.



What you should be asking or assessing ¹⁶

Freedom from hunger and thirst	• Forced molting by the removal of feed (and sometimes water) should not be practiced
Freedom from discomfort	 The ammonia concentration at bird height should be no more than 20 parts per million Chicks, hens and growing birds (pullets) should not be kept on wire floors - these are uncomfortable and do not support the use of loose litter, which is essential for foraging and dustbathing behavior
Freedom from pain, injury or disease	 Beak trimming should not be carried out routinely Producers must have a management plan to prevent and address feather pecking without beak trimming As end-of-lay hens are fragile and prone to bone fractures, they should be euthanized on the farm using a non-aversive gas
	 Killing day-old male chicks should be avoided, e.g., by rearing them for meat or by the identification and destruction of males while still in the hatching egg and before sentience has developed
	 A flock health and biosecurity plan should be in place that is reviewed and updated at least annually

The Five Freedoms - laying hens

Freedom to express normal behavior

- · Cages, whether barren/battery or enriched/furnished, must not be used
- Stocking density must be no more than 9 hens per square meter of useable space
- At least one nest box should be provided for every six hens or one square meter of nesting area per 120 hens for group nesting must be provided
- At least 18 centimeters of perch space per hen must be provided
- When hens are enclosed in a house, whether barn raised or free range, when housed indoors at night or during inclement weather, a minimum of one third of the available floor space must be covered with litter for comfort and to enable dustbathing and foraging activities
- Enrichment materials must be provided to enable proper foraging and other natural activities, e.g., scattered grains and hay bales, for all stages of production
- · Hens must have an uninterrupted period of darkness of at least 8 hours per day
- Animals should be handled gently and never subjected to rough or abusive treatment
- Employees should receive effective training on animal health, welfare and handling
- There should be a confidential reporting system for animal abuse, with clear outlined consequences for violations (including involving the proper authorities depending on the incident)

Freedom from fear

- In cases where they are transported for slaughter, end-of-lay hens should be caught gently without inverting the birds, and the journey should be no more than four hours
- Sick or injured animals must be treated promptly. If they are unlikely to recover, and suffering, they should be euthanized without delay
- There should be an emergency plan in place to prepare for natural disasters (flood, hurricane, tornado, etc.) and other potentially catastrophic events such as fire, disease outbreak, supply-chain disruptions or failure of the ventilation system
 - $\circ~$ Ventilation shutdown (VSD) should never be used for depopulation







Farm animal welfare is a sound investment

Higher welfare = responsible business

Responsible business practices are an essential element of value creation. While implementing these practices may require higher capital costs and operating expenses in the short term, businesses that are most likely to remain profitable and successfully mitigate risk in the future are those accounting for evolving ESG (social, environmental and governance) criteria. Animal welfare is no exception.

Egg and pork producers transitioning to higher-welfare systems must replace their cages and crates with loose housing systems. This will require building new barns or retrofitting their current facilities. Given the added space for the animals, most cage-free housing facilities cost more to operate as do some group housing barn designs. The cost increase depends on many factors such as the layout of the facility, the flooring type and the method of feed delivery, as well as the cost of building materials in specific regions. Transitioning to these systems is the right thing to do and the added costs are minimal when passed on to consumers.

The costs of transitioning to a new system, whether cage-free or crate-free, significantly depend on the specifics of the current system in place and the desired new system.

The cost of cage-free eggs

According to a 2015 study completed in the United States, at most, the production of cage-free eggs is 36% more than cage eggs.

As previously mentioned, these costs can vary significantly.¹⁷

Feed cost	Conventional \$0.425	Aviary \$0.436
Pullet cost	\$0.148	\$0.221
Labor cost	\$0.019	\$0.074
Energy cost	\$0.014	\$0.015
Misc. cost	\$0.005	\$0.005
Total operating cost	\$0.612	\$0.751
Capital costs (at 10%)	\$0.058	\$0.162
Sum of variable and capital costs	\$0.670	\$0.913
Percentage higher costs compared to conventional		36%

Egg production costs¹⁸



Why are costs sometimes higher for cage-free production?

- More space for the animals
- Additional feed for more active animals
- Specialized pullet rearing facilities
- Capital (facilities and equipment)
- Added labor for litter management

Farm animal welfare is a sound investment

The cost of group housing¹⁹

	Confinement stall system	Confinement pen system (conversion budget)	Confinement pen system (non conversion budget)	
	cost per finished pig assuming \$3.00/bushel corn and 19.5 finished pigs per sow			
Barn conversion cost		\$1.15 a	\$0.00	
Feed costs	\$62.05	\$62.05 ^b	\$62.05	
Variable costs	\$18.80	\$18.80 ^b	\$18.80	
Fixed costs	\$26.88	\$32.78 c	\$32.78 d	
Labor costs	\$12.18	\$14.85 c	\$14.85	
Total costs	\$119.91	\$130.00	\$128.85	
		cost per pound of finished pig		
	\$0.45	\$0.489	\$0.486	

"(a) Cost of converting gestation stalls to group pens. (b) Sow productivity is assumed unchanged in the pen versus the stall system. (c) Fixed and labor costs are increased by a factor (0.82) 1 compared with the stall system to account for fact that the group pen system can only accommodate 18% fewer sows.
 (d) The cost of building a stall and pen system from scratch are estimated to be roughly the same."

study highlights

- The conversion budget (retrofitting) had 8.7% higher total costs than the confinement system
- Fixed and labor costs adjusted up on a per-unit basis because this study's assumption had 18% fewer sows (more room per sow = less sows confined in the building)

Additional insight on group housing

The costs of building a new group housing barn or converting an old gestation crate barn vary considerably, based on many factors, including the floor type, pen size and lay-out, feeding system and space per sow. Costs will also differ depending on geographical location, local conditions, and environmental regulations. There are studies that show group housing can cost more than gestation crates, but there are also studies showing that group housing can cost the same or less than gestation crates. As with any production system, replacing an old system may present new opportunities for increased efficiency and productivity.



Farm animal welfare is a sound investment

Percentage increases sound a lot higher than a per-egg breakdown

While cage-free systems increase production costs, the consumers usually purchase a dozen eggs at a time at most (and much fewer in a restaurant meal or packaged good).

At such low volumes, the price increase is very small and given that egg prices fluctuate regularly, the increase due to production costs is unlikely to be noticed by consumers. In an economic analysis performed ahead of a state ballot initiative analyzing the impact of a cage ban on consumers, Compass Lexicon concluded:

"...the likely near-term cost impact of producing a cagefree egg relative to a conventional egg is between around 1 and 2 cents per egg ... the out-of-pocket cost to the average Massachusetts consumer is \$2.93 per year. This cost represents a very small share of the average person's food budget ..." ²⁰



Estimated cost to consumers of a transition to cage-free eggs (cents per egg)²¹

Retail price vs. production costs

Proponents of cage systems may assert that the price increase of cage-free systems is exorbitant while referencing prices on the grocery store shelf. This is misleading, because the prices of specialty eggs include a substantial markup on top of any production-cost increase. The true impact of the production cost increase for cagefree eggs is very small and diluted in other costs.

Retail price includes:

- Transportation
- Storage
- Product losses
- Handling
- Local distribution (wholesaling)
- Packing and sometimes grading
- Marketing
- Retailing markup



Retail markup example²²

Assuming the production cost increase is 36% (a high value from industry estimates), and the cost to produce a dozen cage eggs is \$0.84, which sell at \$2.13 on grocery store shelves, then the retail price, if the full production costs are passed onto consumers, should be \$2.43.

However, retailers may sell cage-free eggs for \$5, or \$3, marking up the eggs far more than the production cost increase.

The willingness to pay for higher welfare products

The incremental costs of cage free production on a per egg basis are estimated to be between \$0.01 to \$0.024 per egg.

According to a 2018 study published in the journal Agribusiness, consumers are willing to pay for cage-free eggs. Nearly 30% of U.S. consumers are willing to pay up to \$0.20 more per dozen for cage-free eggs (vs. caged eggs), and about 27% are willing to pay between \$0.20 and \$0.40 more per dozen.

Roughly 36% of respondents were willing to pay more than \$0.40 more per dozen. This indicates that at least 60% of respondents would be willing to pay more than the increased cost of production for cage-free eggs. In fact, 25% are willing to pay 10x MORE than the increased costs of production.



Distribution of willingness to pay for cage-free or free-range eggs in Chile²⁴

I would pay

between 11% and

20% over the

current price

30%

I would pay up

to 5% over the

current price

30%

I would pay

between 6% to

10% over the current price

12%

17%

11%

I would pay over 20% of the current price I would not pay more

Willingness to pay (related to gestation crates)²⁵

Consumers are also willing to pay more for pork produced from systems that don't use gestation crates.

Researchers in the Department of Agricultural Economics at Oklahoma State University estimated that the cost of transitioning from a confinement stall (gestation crate system) to a group housing system would be 9% at the farm level and 2% at retail level (if all costs were passed on to the consumer). This translates to a maximum of 6.5 cents per pound. They cite consumer surveys showing that the willingness to pay for pork produced in a group housing system is 34 cents more per pound and conclude that "...banning gestation crates creates an average value of \$0.34 per pound but only costs an extra \$0.065 per pound."

Cheat sheet: What to ask before financing

What to ask when considering financing or investing in pig production:

- Do your breeding facilities use gestation crates or group housing?
- What proportion of your total sows are kept in group housing?
- What proportion of your pork production revenue is crate free?
- If you use group housing, are the sows still kept in gestation crates for 28 days or longer?
- Have you committed to transitioning to group housing in the future?
- Are you disclosing annual progress toward reaching 100% group housing?
- Are you certified to a meaningful animal welfare standard? (See page 19 for the standards we recommend)

The answer you are looking for: 100% group housing for gestating sows

What you don't want:

- Confinement in stalls or crates during the 114-day period of gestation (pregnancy)
- Confinement to crates for several weeks, prior to mixing in groups (some producers using group housing continue to confine the sows in crates or breeding stalls for 28-days or longer before letting them loose into group housing)

What to ask when considering financing or investing in egg production:

- Do you use cages to confine egg-laying hens?
- What proportion of your total egg production is cage-free?
- What proportion of your egg production revenue is cage-free?
- If you are using cage confinement now, have you committed to transitioning to cage-free production?
- If you are transitioning to cage-free egg production, are you disclosing annual progress toward reaching 100% cage-free housing?
- Are you certified to a meaningful animal welfare standard? Or, what proportion of your production is certified to a meaningful animal welfare standard? (See page 19 for the standards we recommend)

The answer you are looking for - 100% cagefree housing systems including one of the following:

- Indoor, multi-level aviary
- Indoor, single-level barn systems
- Free-range systems without outdoor access

What you don't want:

- Conventional battery
 cages
- Furnished/enriched/ colony cages



McArthur / We Animals M



What to ask when considering financing or investing in food companies that sell pork and egg products:

- Do you have a purchasing policy in place committing to a 100% cage/crate-free supply chain by a specified date?
- If so, are you publicly reporting progress toward this goal? Have you set annual milestones and are you disclosing progress?
- Are you requiring farm animal welfare certification to a meaningful standard (see page 19 for more details on the standards we recommend)

Debunked arguments for why companies don't have cage- or crate-free policies



THE TRUTH: It's too expensive not to convert to cage- or crate-free housing!

This argument could be turned on its head—it's too expensive not to convert to cageor crate-free housing! The financial risks of failing to keep pace with changing societal expectations are tangible and run counter to good business practices. Keeping pace with new innovations in science, technology and changing norms are essential. Public policy and market situations are evolving alongside animal housing and producers must future-proof their systems to act responsibly and make good financial decisions. While there is a cost associated with transitioning to group housing for sows, it is also true that gestation crates do not last forever and must eventually be replaced. Major pork producing brands can require that on their own farms and on contract farms, aging stalls are replaced with a group housing system, and further, one that is designed to house the breeding females in groups directly after breeding (avoiding the 28-to 45-day temporary confinement period). This said, producers shouldn't wait 20 years to convert. The movement toward crate-free systems has been years in the making and farms have had plenty of time to begin transitioning. Producers who installed new gestation crates in recent years were not making sound capital investments. While group housing systems can be more expensive to operate, the price increase is less than consumers are willing to pa $^{26}_{2}$. Studies are demonstrating that consumers care about where their food comes from and they expect producers to treat the animals humanely.

THE TRUTH: Pigs show aggression when working out a social hierarchy, which is a natural part of their behavior.

In nature, the hierarchy is maintained by subordinate individuals, who simply avoid provoking more dominant individuals. However, when hungry sows are confined together in indoor, intensive-production systems with very little space and where they must compete for access to feed, fighting is not unexpected. Older systems failed to account for the natural social behavior of the animals.

While aggression among sows was a significant concern when group housing systems were first developed, there have been significant scientific, technical and practical advancements since then, and there are now many examples, world-wide, of group housing systems working well. For instance, Maple Leaf Foods in Canada uses a system where sows are moved into groups directly after breeding. They have room to choose where to eat, socialize and rest and fighting is minimized with the use of electronic sow feeding (ESF), a computer-controlled feeding station that protects each sow while she eats individually.

Practical advice for successful group housing is widely available⁴ and includes management strategies such as using a non-competitive feeding system, keeping familiar sows together and providing extra space when the sows are first mixed.



Debunked arguments for why companies don't have cage- or crate-free policies



The 28 - to 45-day period of temporary confinement is needed to ensure sows are bred (and pregnant)

FALSE it's too expensive to convert to cagefree facilities THE TRUTH: While production results vary between farms, there are many examples of well managed facilities that do not confine the sows for a month or more.

Maple Leaf Foods, for example, only keeps sows in breeding stalls for 7-9 days before moving them into group-housing systems. Switzerland, Sweden, Norway and the United Kingdom do not permit gestation crate use for any period during gestation,²⁸ (with the exception of seven days prior to the expected birth of piglets, when the sows are moved into different accommodations for the birth (farrowing) of their piglets.²⁹ The Netherlands permits crate confinement only four days after insemination until one week before farrowing.³⁰ Germany is phasing in a maximum of 5 days in crates.³¹

It has long been known that mixing early can match or even exceed the production of later mixing systems. In fact, some researchers are looking into the production advantages of early grouping, including improved conception rates and reduced number of stillborn piglets.³³

THE TRUTH: Producing cage-free eggs is slightly more costly than producing eggs that come from a cage system, but when you include opportunity costs and the risk-return implications of not converting, it's too expensive not to convert.

Production costs are slightly higher because providing more space for the hens to move freely means fewer hens, and thus fewer eggs, per barn, increasing the overhead cost of producing each egg. There are also greater labor costs, for example, for managing the litter. However, the cost increase is modest at the consumer level, particularly when a large cage-free aviary is used (these can produce tens of thousands of eggs per day).

While the production cost increase for cage-free eggs might be as much as 30% higher, this doesn't translate to a 30% increase at the retail level, because production costs are diluted in other costs, such as packaging, marketing, distribution, product losses and the final mark up on the grocery store shelf, which can be substantial. When cage-free eggs sell for 2 or 3 times the price of cage-eggs, this doesn't reflect the true production cost increase—retailers charge that much more because there is a subset of consumers who are willing to pay a premium for cage-free eggs.^{34, 35, 36}

The true cost increase, which producers can pass on to consumers, is about 1 to 2.5 US cents per egg.³⁷ Because families purchase eggs about twice per month, this is less than a dollar in an average monthly food budget.

The cost of not switching to cage-free eggs is animal cruelty.

Debunked arguments for why companies don't have cage- or crate-free policies



FALSE Poor people will be disproportionately affected by cagefree egg policies (eggs are a low-cost protein source), and it will undermine food security

THE TRUTH: These arguments are an over-simplification of much more complicated issues.

Most of the world's poorest people live in rural communities and are involved in agriculture, but industry consolidation and the construction of large-scale, industrial animal production including battery-cage facilities (which mostly sell eggs to urban centers) can undermine local producers, reducing or eliminating their market access. In the egg business, cage production cuts costs by replacing human labor with automation, but one of the reasons cage-free eggs cost more is because those operations create more jobs. The industrial agriculture model, on the other hand, drains rural economies, contributing to one of the root causes of poverty.

A key part of addressing both rural poverty and food security is sustaining the livelihoods of the millions of small farmers worldwide who earn their livelihood from agriculture. Cage-free production can be a model system for smallholders to achieve livable wages by direct marketing their eggs to high-end urban customers. For example, Grupo Toks operates 84 restaurants, under several brand names, in 20 cities throughout Mexico and serves over 21 million consumers per year. They have made a public commitment to purchase only cage-free eggs and they source directly from mostly women-led enterprises in poor rural communities.³⁹

In another example, the Happy Hens farmers' cooperative in India organizes the sale of eggs sourced from a network of small-scale, cage-free egg producers, providing training, reliable income and marketing to dozens of farm families.⁴⁰ Supporting smallholders in their own agricultural enterprises gives farmers "agency," or control over their own decisions about what kind of food to produce and how it should be distributed. Agency is a key component of food security and networks of small farms may be a more resilient and equitable model, connecting the top and the bottom of the economic pyramid directly.

For questions, or for more information, please contact Jackie Groberski, CFA Manager of Corporate and Financial Institution Engagement, Farm Animal Welfare and Protection Humane Society International jgroberski@hsi.org

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Our mission

Humane Society International works around the globe to promote the human-animal bond, rescue and protect dogs and cats, improve farm animal welfare, protect wildlife, promote animal-free testing and research, respond to natural disasters and confront cruelty to animals in all of its forms.



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