Changing for chickens:
The global business case for farming meat chickens more humanely
Chickens are the most intensively farmed land animal on the planet.

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Consumers and investors worldwide are calling for a change to food production; they want to enjoy their favourite foods with a clearer conscience. Global companies are recognising the opportunities this offers them, as well as the risks of doing nothing. Those already committing to improve chicken welfare are numerous and wide-ranging — from KFC and Kraft Heinz to Starbucks and Subway. And more than 170 iconic companies across multiple sectors have signed up to the Better Chicken Commitment, signalling their clear interest and confidence in higher welfare chicken production.

‘Changing for chickens’ sets out the urgent need for modern chicken production to improve. It looks at how the industry can remain relevant, and offer the animals at the heart of the system lives worth living.

Chickens are the most intensively farmed land animal on the planet. Sixty billion meat chickens — also known as broilers — are raised for global consumption each year. Around 40 billion of these animals suffer in cramped and barren conditions, which restrict their natural behaviours like perching and foraging, and cause them great stress.

Chickens are genetically selected to maximise how efficiently they convert feed to muscle tissue — they move from hatchery to slaughterhouse in just six weeks. This fast growth means that they reach the end of their lives barely able to support their own weight, often suffering from painful bone, joint, and skin conditions. This is no life for a sentient animal, capable of feeling pain and suffering, and of expressing a wide range of positive emotions, including playfulness and relaxation — if given the chance.

Companies that fail to adopt higher welfare systems face a real risk of being left behind and losing market share. Ethical consumerism is gaining support, and meat alternatives are becoming more popular. Consequently, animal welfare, food safety, product quality, combined with accessibility and affordability, will become even stronger drivers of consumer choice.

A World Animal Protection consumer survey highlighted that 71% of shoppers agreed with the statement: ‘I only buy products where I know the chickens have lived a good quality life, the price is not important’.

There are numerous and growing business opportunities to be found in adopting higher welfare chicken farming methods. Case studies of higher welfare production are included in this document.

World Animal Protection works from 14 hubs around the world, supporting the food industry to improve the welfare of farmed animals. We urge food companies, and the producers supplying them, to embrace the many benefits of higher welfare chicken production and would like to further explore the potential of higher welfare farming with you.

Let us know what you think about the ideas raised in this report and continue the conversation with Jonty Whittleton, our global campaign head, at jontywhittleton@worldanimalprotection.org

### Higher welfare chicken production is good for business

Consumer interest in higher welfare production is growing

For all members of the food industry — from producers and processors to restaurants and retailers — staying in business means ensuring sourcing practices reflect consumers’ changing values.

And it’s clear that consumers worldwide are more concerned than ever about where their food has come from and how it’s produced. A 2018 World Animal Protection public survey revealed significant concern for farm animal welfare, as shown below.

Table 1: Selected data from 2018 World Animal Protection brand survey

<table>
<thead>
<tr>
<th>Question/result by key market</th>
<th>Brazil</th>
<th>China</th>
<th>Netherlands</th>
<th>Thailand</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil respondents</td>
<td>1,020</td>
<td>2,002</td>
<td>1,007</td>
<td>1,013</td>
<td>2,000</td>
</tr>
<tr>
<td>Strongly or moderately agreed that:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying meat that has been produced in an inhumane way is not ok</td>
<td>94%</td>
<td>88%</td>
<td>85%</td>
<td>90%</td>
<td>81%</td>
</tr>
<tr>
<td>Protecting animals should be a priority in my country</td>
<td>90%</td>
<td>70%</td>
<td>68%</td>
<td>95%</td>
<td>78%</td>
</tr>
<tr>
<td>I only buy products where I know the chickens have lived a good quality life, the price is not important</td>
<td>72%</td>
<td>87%</td>
<td>60%</td>
<td>77%</td>
<td>65%</td>
</tr>
</tbody>
</table>

Note: Overall global average was 71%
China
85% of consumers interviewed expressed concern about the conditions in which chickens are raised.

Brazil
42% of consumers said they were making a conscious effort to research and buy high-welfare chicken products.

Australia
5% of consumers surveyed said they would pay 5% more and half would pay 10% more. Of those willing to pay more, 7 in 10 said they would pay 5% more and half would pay 10% more.

Consumers will pay more for higher welfare chicken
Consumers claim that they’re increasingly willing to invest their money in higher animal welfare products.

• A 2018 study assessed US consumers’ willingness to pay for chicken from slower growing breeds. The results report that US consumers are willing to pay up to 14.3% more for slower growing chicken.1

• A 2017 study assessed Dutch consumers’ willingness to pay for higher welfare chicken. It found that on average, Dutch consumers were willing to pay around €6 per 500g of higher welfare chicken. This was close to 150% of the price of conventional chicken at the time of the study.2

World Animal Protection consumer polling confirms positive trends in consumer willingness to pay in key markets.

Brazil
90% of QSR consumers surveyed expressed they were willing to pay an extra R$0.25 for a common chicken-based QSR meal if it ensured that the chicken was raised in a healthier environment.

Thailand, India, and Indonesia
90% of consumers said they had concerns about chicken farming. 57% were concerned about antibiotic use in chicken production. 90% of consumers are concerned about the welfare of chicken sold by Quick Service Restaurants (QSRs). 33% of those said they were specifically worried about where the meat comes from and how the animals are raised.

• Consumers were asked about who should be responsible for chicken welfare. 81% said they thought that chicken farm owners and suppliers are responsible; 6% thought QSRs should be responsible.

Consumers worry about antibiotic use in chicken production
Recent food safety scandals and zoonotic disease outbreaks are causing consumers to think about food systems and where their meat comes from. Research findings1 presented by WBCD International to the 2017 US Chicken, Marketing Summit identified food safety as the issue causing consumers the most concern. This was followed by disease, hormone use and antibiotic use. Despite consumer knowledge gaps in some areas, there are legitimate reasons for these concerns. A total of 75% of new or emerging human infectious diseases reported in the past three decades are derived from animals.2

The survey of antibiotic use in farming (and the associated rise of antibiotic-resistant superbugs) is rightly getting significant scrutiny. Globally, these quarters of all antibiotics are used in farming. The use of antibiotics in feed or water to promote fast growth of farm animals, or to prevent disease across entire groups of birds, remains widespread in most countries. Antibiotic-over-use in farming facilitates the development of superbugs,3 which can then be spread via food, animals, animal feed, manure and the environment. This poses major risks for people and public health.

Antibiotics-free production is not the answer. ‘Raised without antibiotics’, ‘antibiotic-free’ or ‘no antibiotics ever’ products are being marketed in response to consumer concern. These approaches are inadvisable as antibiotics should still be used to treat sick individual animals.

The antibiotic-free trend can discontinue the treatment of sick animals and the resolution of underlying problems. Contrary to the expectations of the researchers, antibiotic-free systems promote healthier animals, they are associated with serious animal welfare issues. These include skin burns, and eye and respiratory conditions.4 More than 500 American vets and producers familiar with antibiotic-free conventional production have expressed concern with these schemes and their negative effects on animal welfare.5

Wooden breast is characterised by substantial degenerative breast muscle diseases increasingly prevalent in fast-growing chickens in recent years. Breast muscles affected by white-stripping show white parallel striations in the direction of the muscle fibres.6 Wooden breast is characterised by substantial hardness and a tough consistency of the breast muscle.7 Spaghetti meat describes breast meat showing a clear separation of the muscle fibres.8 It has a stringy texture resembling spaghetti.9

For more information on the cost that breast disease and other problems can have for producers, please refer to ‘Managing the cost of higher welfare production’ in this report.

A peer-reviewed study found that “there is an increasing appreciation of animal-welfare parameters over other quality attributes”. The study also found that “animal-friendly products are considered healthier, safer, tastier, more hygienic, authentic, environmentally friendly, and traditional by many consumers.”10

Higher welfare farming systems hold the key to reduced antibiotic use
Higher welfare farming systems hold the key to reduced antibiotic use. Farming higher welfare, slower growing chicken breeds allows for substantial reductions in antibiotic use compared with conventional intensive systems.11 Studies also indicate that higher welfare chicken farm systems have a lower prevalence of antibiotic-resistant E. coli bacteria and pose a lower risk to the environment and consumer than antibiotic-free intensive systems.12

With such clear public interest in reducing antibiotic use in farming, higher welfare systems have a real advantage over factory farms, and this is a great story for consumers to hear.

1. China, Brazil, Australia, Thailand, India, and Indonesia.
2. World Animal Protection consumer polling confirms positive trends in consumer willingness to pay in key markets.
3. 4. 5. 6. 7. 8. 9. 10. 11. 12.
The following companies have signed up to the Better Chicken Commitment, or to producing chicken certified to this standard in at least one market in which they operate:

- Restaurant chains
- Fast-Moving Consumer Goods (FMCG) brands
- Food service companies
- Producers

Investors share public concern on animal welfare

There is a growing trend of integrating farm animal welfare concerns into investment decisions. The New York Pension Fund is the third-bigger public retirement fund in America and a major McDonald’s shareholder. In 2018 it warned McDonald’s of its concerns over the “potential financial and reputational risks associated with McDonald’s chicken welfare practices.”

And, as of July 2020, 33 major investors had signed the Business Benchmark on Farm Animal Welfare (BBFAW)*. Global Investor Statement on Farm Animal Welfare: These include Aviva Investors, BNP Paribas Investment Partners and BMO Global Asset Management, collectively, they represent the management of £2.5tn in assets.

The Global Investor Statement signatories all see farm animal welfare as a material investment risk and opportunity. They expect food companies to implement effective practices and processes to manage farm animal welfare.

Catherine McCabe, senior associate, responsible investment at BMO Global Asset Management stated: “We recognise that consumers have growing concerns about animal welfare, and we believe that food companies demonstrating leadership on farm animal welfare are more likely to attract and retain consumers.”

Taking action to improve chicken welfare

The Better Chicken Commitment** is a groundbreaking collaboration between a diverse groups of animal protection groups. These groups, including World Animal Protection, used the latest animal welfare science to define a model chicken production system that is humane, sustainable and, crucially, profitable. The Better Chicken Commitment (detailed on Table 4, pages 22/23) is endorsed by more than 170 leading food companies, who understand the business opportunities available from embracing higher welfare production systems.

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* The Business Benchmark on Farm Animal Welfare (BBFAW) is the globally recognised investor framework for assessing the quality of companies’ practices, processes and performance on farm animal welfare. Plukon Food Group offers products in Germany that meet the criteria of the Better Chicken Commitment. It also offers these products in the Netherlands through the Beter Leven scheme. 2 Sisters Food Group, Perdue, and Wayne Farms will supply chickens to meet demand in line with the Better Chicken Commitment Standards.

** The Better Chicken Commitment is also known as the European Chicken Commitment. The differences, which are listed in Table 4, pages 22/23, are minor and reflect the regional variations in chicken production systems. In this document, ‘Better Chicken Commitment’ is used regardless of the location.
Exploring chicken welfare

What chickens need for lives worth living

We are calling for better conditions in meat chicken production. This means higher welfare indoor systems that maintain efficient production while allowing chickens to live healthy and pain-free lives with the freedom to walk, run, play, and rest.

The minimum requirements in The Better Chicken Commitment (Table 4, pages 22/23) have been aligned with current scientific research. They help define a level playing field for producers and food businesses to make continuous improvements.

The following solutions play an important role in ensuring that a chicken can have a life worth living. Good genetics and healthy environments should be introduced together; chickens with good genetics will make the most of a healthy environment.

A Good genetics

Commonly used commercial breeds are phased out in favour of higher welfare breeds with the potential for improved welfare outcomes. This is key to overall welfare improvement in chicken production. Higher welfare breeds gain weight at a healthier rate (typically less than 50g per day). This means they have more balanced bodies which allow them to remain active and express natural behaviours throughout their growth cycle. All major genetic companies offer slower growing, higher welfare chicken breeds.

Healthy environments

Chickens with the genetic potential for higher welfare can thrive in environments built around their needs. These environments involve the following.

B Lower stocking densities of a maximum of 30 kg/m² or 6 lbs/ft² allow the chickens to express natural behaviours, reduce their fear and stress, and help them build stronger immune systems.

C Better lighting with an average light intensity of 50 lux (including natural light), and at least six hours of continuous darkness per 24-hour cycle. This allows the development of natural rhythms; better eye development; improved activity levels; better leg and foot health; and encourages natural behaviours.

D Functional environmental enrichments. These include perches, platforms, and pecking objects which allow chickens to perform natural behaviours, and improve their walking ability, leg strength, and skin and feather condition.

E Dry, loose litter across the whole floor. This allows the chickens to behave naturally - they can dustbathe and forage. It also promotes better walking, good footpad health, and cleaner feathers.

More humane processing

Maintaining good welfare and preventing unnecessary suffering is also important during slaughter and processing. This is important not only for the chickens, but to ensure food safety, the quality of their meat, and better working conditions for processing plant workers. Slaughter conditions are improved using Controlled-Atmosphere Stunning (CAS). This involves irreversible stunning of birds before slaughter using gas instead of electricity.¹⁷⁻¹⁹

The gas may be inert, such as argon or nitrogen, or a mixture of carbon dioxide and other gases. Birds are stunned and then killed by exposure to the gas or gases. CAS eliminates the need for live handling at the slaughterhouse, shackling and inversion of conscious chickens, which causes them stress and pain.¹⁸⁻¹⁹
Industrial suffering – the reality for modern meat chickens

Around 40 billion chickens – two thirds of the 60 billion chickens farmed for their meat annually – live in cramped and barren conditions. They typically move from hatchery to slaughterhouse in six weeks.

Because they are genetically selected to maximise how efficiently they convert feed to muscle tissue, these chickens reach the end of their lives barely able to support their own weight. They often suffer from painful bone, joint, and skin conditions. The challenges listed below are common in modern chicken production.

Fast growth genetics

The largest chicken genetics companies have worked with producers to breed chickens capable of such rapid growth that they reach slaughter weights of up to 3kg in just six weeks. A large body of research has examined how welfare outcomes are inherited and their association with different breeds of chickens. For example, fast weight gain supported by the chickens’ immature bones is linked to leg weakness and bone deformities.

Crowded, barren environments

At slaughter weight, a factory-grown chicken lives in an area equivalent to an A4 piece of paper. Under intensive production conditions, chickens are stocked at densities of up to 43 kg/m² or 9 lb/ft². High stocking density is a major contributor to poor chicken welfare. It reduces freedom of movement, including the ability to adequately perform natural, highly motivated behaviour. The lack of enrichments, including perches, platforms, pecking substrates and sufficient litter, further prevents chickens from behaving naturally.

Dim lighting and unnatural light cycles

Most chickens spend their whole lives in dimly lit barns, where light intensity is on average 5 lux. This is to limit their activity and to help push them to eat the large quantities of feed required for rapid weight gain. They also often get no more than four hours of continuous darkness, which limits their ability to rest properly and develop natural chicken physiological and behavioural rhythms.

Poor welfare outcomes

Fast growth genetics and low-welfare environments lead to poor welfare outcomes for chickens. Welfare outcomes are partial measures of a chicken’s overall welfare. For chickens, commonly measured outcomes include walking ability (gait scoring), and footpad dermatitis scores (paw scores). Studies have consistently shown that approximately 26-30% of chickens suffer from lameness and impaired walking ability by 40-42 days of age. Because standing and walking may cause them discomfort and pain, their activity is significantly reduced.

Conventional, fast growing chickens spend between 53 and 86% of the time resting. Prolonged contact with litter, especially when it is high in moisture and ammonia from the animals’ excrement results in skin and foot lesions. Footpad lesions, ranging from mild inflammation to open ulcers have been reported in 25–70% of chickens.

A focus on cages

Caged chicken production compromises the chickens’ welfare even further and is unfortunately growing in use in some parts of the world, including Turkey, Russia and China. Chickens reared in cages are likely to be housed at even higher stocking densities than those in floor-based housing systems. Cage system manufacturers recommend stocking densities between 45-50kg/m² (9.2-10.2lb/ft²). At this density, in their last weeks of life, the birds are so overcrowded that they can barely move.

Despite cages being banned from the EU, European companies are still manufacturing and promoting cages for use in countries where they are permitted. Because of the severe welfare problems they cause, these farming systems have no place in the global chicken meat supply chain.

In their last weeks of life, the birds are so overcrowded that they can barely move.
**Investing in solutions – higher welfare chicken production worldwide**

The Better Chicken Commitment provides the baseline criteria that will improve the welfare of commercially produced chickens to an acceptable level. The study on welfare cost-efficiency conducted by Wageningen University in 2018 established how each criteria contributed to an overall improvement in chicken welfare.\(^1\)

Every improvement made counts, but there is a synergistic effect among the various elements - for example between genetics, stocking density, light and enrichment. This means that cost projections and welfare efficiency may be better than currently estimated when all elements of the Better Chicken Commitment are implemented. The cases highlighted below represent meaningful progress toward the criteria. However, in all cases, the criteria are only partially met. Only one company (KFC UK and Ireland) has committed to meeting the full Better Chicken Commitment by the 2026 deadline.

**KFC, UK and Ireland**

KFC UK and Ireland (along with KFC Germany, the Netherlands, Belgium and Sweden, and subsequently KFC Denmark) signed up to the Better Chicken Commitment in 2019.

General Manager of KFC UK and Ireland Paula MacKenzie said: “Signing up to the European Chicken Commitment isn’t just a box-ticking exercise for us, we’re doing this because we truly believe it’s the right thing to do. Chicken is our business and we have a responsibility as the chicken brand, to make sure we’re pushing improvement to chicken welfare standards across our supply chain.”

“Our business depends on the health, sustainability and reputation of chicken farming and, our customers care about improving the lives of the chickens we buy. That’s why we’re adding our voice to the campaign and encouraging others to do the same – because to inspire real change and provoke meaningful action, we need the industry to move with us.”

In July 2020, KFC UK and Ireland released its first annual progress report,\(^4\) which sheds light on the company’s progress to meeting the Better Chicken Commitment criteria (see Table 4, pages 22/23). While it’s clear that much progress is needed, the high level of transparency is encouraging. The report also provides a blueprint for how companies should be showcasing efforts to address poor chicken welfare in their supply chains.

**Retailer sector, the Netherlands**

Major retailers in the Netherlands have been instrumental in shifting domestic fresh chicken supply to higher welfare standards. From 2014 to 2015, retailers, including Albert Heijn and Jumbo, responded to pressure from consumers and animal protection organisations.

They replaced all conventionally raised chicken on their shelves with higher welfare chicken. It was sold under private labels such as ‘Hollandse Kip’ (‘Dutch Chicken’, Albert Heijn) and ‘Nieuw Standaard Kip’ (‘New Standard Chicken’, Jumbo). These chickens are raised to a standard deemed the ‘New Dutch Retail Standard’ (NDRS), which varies according to retailer, but is in all cases an improvement over the minimum EU requirements.

### Table 2: Comparison of welfare standards across chicken production systems in the Netherlands.

<table>
<thead>
<tr>
<th>Standard</th>
<th>Breed</th>
<th>Max. Stocking density</th>
<th>Enrichment</th>
<th>Natural light</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU minimum</td>
<td>Fast growing</td>
<td>42kg/m²</td>
<td>Recommended, not required</td>
<td>No, 20 lux artificial light minimum</td>
</tr>
<tr>
<td></td>
<td>Slow growing</td>
<td>32kg/m²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Jumbo</td>
<td>49-day growth period</td>
<td>38kg/m²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Albert Heijn</td>
<td>49-day growth period</td>
<td>38kg/m²</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

These standards fall short of the full list of criteria of the Better Chicken Commitment, but they represent important progress for the welfare of chickens in the Netherlands: They have allowed the complete phasing out of conventional, fast growing chicken from supermarkets. Furthermore, NDRS chicken now constitutes the minimum acceptable standard for fresh retail chicken in a market that offers other higher welfare options* which satisfy the Commitment’s requirements.

The following factors are believed to have played a central role in the transition to higher welfare chicken standards in the Netherlands.

- Development of a cost-efficient higher welfare alternative which suits producers, consumers, retailers, and other food businesses.
- Massive sensitisation of consumers, producers, and retailers, leading to consumer demand and willingness to pay for higher welfare.
- Creating mass demand for higher welfare chicken through coordinated action of large purchasers, in this case the coordinated action of major retailers.
- Elimination of low welfare alternatives, limiting the choice range of consumers.

* Other options include Better Leven, free range and organic.
Perdue Farms, USA

Perdue Farms is the fourth largest chicken producer in the USA. The company launched its Animal Care programme in 2016. The goal was to track changes in chicken welfare outcomes while improving the animals’ welfare through changes in housing environments, genetics, transport and processing.

In 2019, Perdue engaged in the following initiatives, relevant to the Better Chicken Commitment:

- Alternative breeds – Perdue is conducting research on 11 higher welfare chicken breeds, to better understand their behavioural needs. Across the board, these higher welfare breeds have shown higher activity levels and use of enrichments.
- More space – Perdue conducted research comparing stocking densities of 7.9 lb/ft² to 5.3 lb/ft². Lower stocking densities increased activity (running and walking) and perching by 30%.
- Natural light – In 2019, Perdue reported that 48% of their chicken houses had windows, which marks progress on their goal of having windows in 75% of houses by summer 2020.
- CAS – Perdue’s first CAS plant was installed in November 2017, and has capacity to process 240,000 chickens per day. Chickens are transported from the farm in modular containers, and remain in these containers throughout processing. This eliminates the need to unload and shackle the animals while conscious. Perdue has plans to switch their processing to 100% CAS.

These changes to genetics and environments are directly related to measurable improvements in welfare outcomes including the following.

- Increase in chickens’ activity levels – Perdue developed a method to monitor activity, and in 2016 set a goal to double activity over three years. Results so far indicate that natural light has increased chickens’ activity by 30%, enrichments by 10%, and lower stocking densities by 30%.
- Paw or foot scores – From January 2017 to March 2019, there has been a cumulative improvement of 22% in paw scores. These scores assess the overall health of chickens’ feet, for example the absence of footpad dermatitis and hock burn.

Betagro, Thailand

As part of a comprehensive strategy to make animal welfare central to their business model, Betagro Thailand has committed to improve the welfare of chickens in their care. This commitment is driven, in part, by higher customer expectations about animal welfare. Some of the improvements Betagro has made include the following.

- Enrichments to encourage physical activity and improve overall welfare – Research on enrichments has allowed Betagro to select enrichments that the birds will use, and that are also available, affordable, and practical for cleaning and disinfection purposes. As of January 2019, all company-owned and contract grower houses must provide straw bales, perches, and pecking objects.
- Reduced stocking densities to allow chickens to express natural behaviours such as pecking, dust-bathing, and preening – These help prevent the development of hock burn, footpad dermatitis and other conditions that contribute to poor welfare, and ultimately result in culling.
- Betagro is implementing stocking densities of 28kg/m². It is also considering further reducing to 25kg/m². This is to prevent welfare issues such as breast blisters, footpad dermatitis and lameness, which are associated with higher stocking densities and wet litter.
- Betagro’s chicken houses have been modified to allow their animals access to natural light – Windows allowing natural light must measure 3% of the total house area.
Improving chicken welfare can increase certain production costs and, in some cases, increase the environmental impact. Higher welfare production demands more space for chickens, and uses slower growing breeds that require more feed. But recent research reveals that production cost increases are lower than previously believed, and that better metrics are needed to understand the true sustainability of higher welfare production. Research into this important topic includes the following:

Assessing welfare cost-efficiency
A Wageningen University report for World Animal Protection shows how higher welfare farming systems create a win-win situation for consumers, businesses, and chickens. The research, the first of its kind, is an economic welfare analysis of conventional and higher welfare production systems in the Netherlands, the USA, Brazil, China, and Thailand. These countries are among the top chicken producers, collectively producing more than 26 billion chickens per year.

This research found that shifting from ‘conventional’ to higher welfare indoor systems increases production costs by only 6.9 eurocents per kg live weight across the five markets studied. This means an increase of 6.4-13.4% above conventional production costs, which is much lower than increases of up to 49% previously projected by some industry estimates.37

Accounting for losses in conventional chicken production
A 2019 study commissioned by RSPCA UK found slower growing chickens consumed on average 21% more feed than fast growing birds to achieve a weight of 2.2kg. This was in addition to taking longer to reach this weight.38 However, the apparent inefficiencies of slower growing chickens are likely to be offset by welfare gains that positively affect productivity. These include lower mortality rates and lower cull rates due to lameness. For more information on these benefits, please refer to the case study in this report ‘Exploring the benefits of slower growth, RSPCA UK’ [page 19].

The study also showed reduced post-slaughter losses due to meat-quality problems like wooden breast and white striping. Between 3.1% and 23.4% of the fast growing birds presented wooden breast, versus 0.9% of the slower growing birds. And 63.4 to 78.1% of the fast growing birds presented moderate to severe white striping, versus 9.6% of the slower growing birds.

The study concludes that differences in production costs related to the use of slower growing breeds are minimised.39 This is because of the higher mortality rates of fast-growing chickens, and the losses due to meat downgrades and condemnations. In markets where higher welfare production is well-established, such as the EU, economists estimate that the income of farms using slower growing breeds stays intact. The extra costs are compensated by the higher added value of the product.40

Paying the price for fast growth
In the USA, wooden breast, white striping, and spaghetti meat – caused by breast muscle disease – continue to cause massive losses. Spaghetti meat is reported to affect between 4-5% of breast filets, while 10% and 30% are affected by wooden breast and white striping, respectively. Industry expenses to identify and divest the defective meat are estimated to be in excess of US$200m per year.41

A 2018 survey by industry magazine WATTAg revealed that 19.5% of US producers were changing feed formulation to address breast muscle diseases, 10.3% were reducing the size of birds, and 4.6% were changing genetics.42 The problem is so significant that the United States Department of Agriculture is funding a US$100,000 research project to develop uses for the defective meat.43

Antibiotic reduction and higher welfare go hand in hand
In the EU, the use of antibiotics as growth promoters was banned in 2006. At that time, the Netherlands was the highest consumer of veterinary antibiotics in the EU. This led to the creation of a task force with the goal of reducing antibiotic use by 50%.44

The Dutch case is among the most successful in reducing antibiotic usage to limit increased antimicrobial resistance; their strategy has had no negative economic or animal welfare impacts. And for farmers, the transition to slower growing breeds has been central to achieving antibiotic reduction. The slower growing chickens required on average a third fewer antibiotics than their faster growing counterparts, which helped to minimise the difference in productivity.45

In this case, the transition to slower growing breeds allowed the rapid decrease in the use of veterinary antibiotics. It also addresses two of the highest consumer concerns – antibiotic use and animal welfare and so ensured economic viability.

Developing a comprehensive approach to assessing chicken welfare and sustainability
Wageningen University in the Netherlands has launched The Greenwell Project to develop tools to assess various sustainability dimensions of chicken production, including animal welfare, environmental impact and economics. The project brings together a diverse group of stakeholders, including producers, genetics companies, government bodies, and civil society organisations. It disputes the long-standing belief that higher feed conversion and growth rates are the key to efficient production. Instead, the solution focuses on highly effective production chains, which use fine-tuned combinations of genetics, feed and residual flows to minimise environmental, animal welfare and productivity impacts.

In the corporate sector, restaurant chain Nando’s announced in July 2020 that their UK business would be aligning with the Better Chicken Commitment. Concurrently, it launched a set of greenhouse gas emission reduction targets approved by the Science Based Targets initiative making it the first restaurant group in Europe to do so. These decisions by Nando’s highlights that animal and environmental protection are not at odds; both issues are vital aspects of sustainable business management.

The transition to slower growing breeds allowed the rapid decrease in the use of veterinary antibiotics. Developing a comprehensive approach to assessing chicken welfare and sustainability is vital to addressing these issues.
Research into higher welfare chicken production

Enriching environments for chickens, Brazil universities

Researchers at the Federal University of Parana are comparing meat chicken welfare in closed-sided and open-sided houses. Open-sided houses, common in some areas of Brazil, have open sides with curtains that can be used to regulate light and airflow. Closed-sided houses, common in North America, Europe, and increasingly in other parts of the world including Brazil, have no windows. They use automated tunnel ventilation systems to control temperature.

So far, this research has revealed that the welfare of chickens in both types of housing can vary according to house design and season. Closed-sided houses have some advantages especially during summer and spring. They provide higher air velocity. This in turn helps regulate temperature and results in less panting in the birds, a sign of heat stress.

However, chickens in the closed-sided houses were less able to behave naturally and appeared more stressed during summer, spring, and winter. This could be related to the conditions of closed-sided houses, which featured extremely low light intensity and higher stocking densities. During summer and spring there was also a higher prevalence of contact dermatitis in the chickens’ breast and abdominal areas.

Open-sided houses in this study also presented some disadvantages. Compared to the closed-sided houses, chickens suffered from a higher prevalence of contact dermatitis in their breast and abdominal areas, and from dirty feathers in winter. They also pantied more and suffered more scratches in summer and spring. However, the chickens showed more positive emotional states. There were also better light levels, lower stocking densities and fewer behavioural restrictions compared to closed-sided houses.

While both types of houses present welfare challenges, the observation of more natural behaviours and positive welfare states in open-sided houses is promising. Studies like this one are valuable. They help producers understand how to capitalise on the welfare advantages of lower cost systems like open-sided houses. They also contribute to a better understanding of what environmental variables need to be managed to optimise the chickens’ welfare.

At Sao Paulo State University and Queen’s University Belfast, researchers are studying the benefits of using enrichments to improve the welfare of chickens in Brazil. This study showed that environmental enrichment is a relatively low-cost, feasible option that can be used as a first step for improving chicken welfare.

This study assessed the use and preference for four types of locally built enrichments. It also analysed the correlation between enrichment provision, stocking density, and the development of footpad dermatitis and hock burn. These are both serious and common welfare concerns in chickens.

Chickens stocked at 30 kg/m², with access to platform perches, had better footpad dermatitis scores than those with those same enrichments stocked at 35 kg/m². Researchers believe this is because the chickens at lower densities had more space and consequently more opportunities to use the enrichment. This in turn meant their feet had less contact with the litter which causes the dermatitis. They concluded that enrichments, combined with low stocking densities, are likely to have the most beneficial effect on the chickens’ welfare.

Exploring the benefits of slower growth, RSPCA UK

The Royal Society for the Prevention of Cruelty to Animals (RSPCA) commissioned Scotland’s Rural College (SRUC) to compare the welfare of the three most common fast-growing chicken breeds to slower growing counterparts. The birds were studied in similar indoor conditions.

For decades, commercial chicken breeding programmes have focussed on maximising feed conversion efficiency, rapid weight gain, and a disproportionate increase in size of the breast muscles. This has been at the expense of chicken welfare, as supported by the findings of the study. The slower growing breed has benefitted in the ways detailed in the below table.

<table>
<thead>
<tr>
<th>Enrichment provision</th>
<th>Slower growing breeds</th>
<th>Fast growing breeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower mortality</td>
<td>5.2%</td>
<td>Two of these breeds had an average mortality of 10.7%-11.2%</td>
</tr>
<tr>
<td>Better walking ability</td>
<td>89% had gait scores of 2 or lower</td>
<td>26% - 38% had scores of 3.5</td>
</tr>
<tr>
<td>Better expression of natural behaviours – foraging and perching</td>
<td>Foraged for 12.9% of their time</td>
<td>Foraged for 79% of their time</td>
</tr>
<tr>
<td></td>
<td>Perched for 8% of their time</td>
<td>Perched for 0.5%-1.2% of their time</td>
</tr>
</tbody>
</table>
Identifying the best breeds, University of Guelph

In July 2017, the University of Guelph in Canada started a study comparing welfare, health and production outcomes for 16 chicken genotypes. The genotypes were three conventional, 12 slower growing, and one dual-purpose strain. The study is the first of its kind to compare a broad range of fast and slow growing chicken breeds side by side under standard production practices and using validated welfare indicators.

This study measured the following indicators:

- activity levels, measured with automated movement trackers
- play behaviour
- use of enrichments
- footpad dermatitis and hock burns
- average daily weight gain and feed conversion
- yield
- carcass quality, including presence of wooden breast and white striping.

Significant findings of this study include:

- Fast-growing chickens spent more time sitting, and less time standing and walking than slower growing strains, even at the same ages. At 26 days old, fast-growing chickens spent 73.6% of their time sitting, 4.2% of their time standing and 2.3% of their time walking. Slower growing chickens of the same age spent an average of 63% of their time sitting, 7.8% of their time standing and 4.3% of their time walking.
- Fast-growing chickens were generally less active than slower growing chickens of the same age.
- Slower growing chickens used enrichments more than their fast growing counterparts.
- Fast growing chickens with larger breast muscles also had a poorer foot and hock health, higher rates of muscle disease, and potentially inadequate organ development.

Although the list of breeds will not be publicly disclosed, the Global Animal Partnership (GAP*) will have access to this information. They will use these results to guide science-based decisions regarding requirements for breeds in higher welfare systems. A list of breeds recommended by GAP based on this research will also be used by the Better Chicken Commitment.

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*GAP is a non-profit organisation which promotes the welfare of farmed animals by rating the welfare standards of farm animal products.
Robust and transparent policies mean better lives for chickens and build public trust. Robust, comprehensive animal welfare policies are the first step toward better lives for chickens. Food businesses should be transparent and accountable for their commitments and these should be expressed in clear and publicly available policy statements. Robust policies should be comprehensive, specific, and time bound. Table 4 details the specific policy requirements that companies must adhere to, to align with the Better Chicken Commitment.

For more information on specific policy wording to accompany the Better Chicken Commitment, please visit welfarecommitments.com/letters.

**The Better Chicken Commitment in detail**

<table>
<thead>
<tr>
<th>Timing</th>
<th>US and Canada</th>
<th>Europe</th>
<th>Rest of world</th>
</tr>
</thead>
<tbody>
<tr>
<td>All by 2024, except breed</td>
<td>All by 2026</td>
<td>All by 2030</td>
<td></td>
</tr>
</tbody>
</table>

**Parameters**

100% of chicken in supply chain (fresh, frozen and processed)

**Breed**

By 2026 approved by the Global Animal Partnership (GAP) standard for chickens, version 3, or RSPCA [Broiler Breed Welfare Assessment Protocol]

**Stocking density**

- No cages or multi-tier systems
- 30kg/m² or 6lb/ft²

**Environmental standards**

- 50 lux of light minimum. All facilities to have natural light by January 2022
- At least two different types of enrichments (with one enrichment per every 750 ft² or 70 m²)
- Air quality must not exceed 20 ppm ammonia and 10 mg/m³ dust (measured with calibrated meter or testing strip)

**Slaughter**

- Avoids pre-stun handling
- Multi-step, controlled atmosphere stunning

**Compliance**

Demonstrate compliance with the above standards via third party auditing

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Table 4: The global solutions and timelines underpinning the Better Chicken Commitment.
Conclusion

Raising the global standard to give chickens better lives

Consumer worries over food safety and quality issues, and animal welfare, cannot be ignored. Major investors’ concerns over the financial viability of factory farming add weight to these fears, and highlight the significant risks involved in raising chickens in low-welfare systems.

The factory farming of chickens raises multiple challenges from an animal welfare perspective. These include rapid growth rates, barren environments and inhumane processing. It is essential that food companies move away from these systems. They must ensure that their business practices align with the values of their stakeholders, not only now but in the future.

The higher welfare system outlined in this document, and supported by the Better Chicken Commitment and numerous scientific studies, provides a practical and robust solution. It can be implemented in markets around the world. More than 170 iconic companies across multiple sectors have signed up to the Better Chicken Commitment, which signals clear interest and confidence in higher-welfare chicken production.

The costs that come with improving chicken welfare, both financial and environmental, are not as high as some industry studies suggest. They should be considered non-negotiable trade-offs given the serious welfare issues prevalent in factory farming systems. Furthermore, additional costs can be offset by wider benefits including enhanced consumer trust, increased investor interest, alignment with broader sustainability goals, and, in some cases, higher product price points.

We strongly urge all companies involved in the production and sale of chicken meat to align their animal-welfare policies with the companies that have already signed up to the Better Chicken Commitment.

We are ready to support you in making your move to higher welfare, and giving the chickens in your business better lives.
References


CHANGING FOR CHICKENS
We are World Animal Protection.
We end the needless suffering of animals.
We influence decision makers to put animals on the global agenda.
We help the world see how important animals are to all of us.
We inspire people to change animals’ lives for the better.
We move the world to protect animals.

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