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**Defra Consultation on**  
**Proposed Legislation and Codes for Broiler Chickens**

**Response by Compassion in World Farming**

Compassion in World Farming's answers to key questions in the Consultation are set out below. However, we would like to begin by summarising the essence of our position:

**Compassion in World Farming's position**

Following recent television programmes, there has been greatly increased public interest in the welfare of broilers. This has resulted in much higher sales of chickens produced to higher welfare standards. According to UK national retailer sales data commissioned from independent retail analysts TNS for Compassion in World Farming in January 2009, consumers have continued to buy high welfare chicken meat throughout 2008 and the market for high welfare chicken meat has continued to grow (Compassion in World Farming 2009). It should be noted that the increased public interest occurred after Defra's cost-benefit analysis, strengthening even further the overwhelming argument for higher welfare standards.

Higher welfare is achieved primarily through:

- Reduced stocking densities
- Environmental enrichment
- Choice of breeds associated with higher welfare
- Good nutrition and management

Higher welfare in some of these systems is evidenced by lower levels of mortality, lameness and conditions such as hock-burn and footpad dermatitis and higher levels of chicken activity (RSPCA, 2006).

The new regulations based on the EU Directive provide the first legal restrictions on stocking densities. This is welcome.

However, Compassion in World Farming is very disappointed that:

- The legal levels are set at high levels at which welfare will be poor
- The code which stipulated that stocking density should not exceed the high level of 34 kg/m<sup>2</sup> has been deleted, significantly weakening the recommended standard
- The code which stated that thinning should not be practised, a procedure which stresses the remaining birds and effectively permits even higher initial stocking densities, has been weakened by the addition of the words “if possible”
- There are no detailed suggestions in the code on breed genetics, the greatest single factor affecting the welfare of broiler chickens
- The code on environmental enrichment merely suggests that it should be considered

The legislation, based on EU requirements, states that “Animals may only be kept for farming purposes if it can reasonably be expected, on the basis of their genotype or phenotype, that they can be kept without any detrimental effect on their health or welfare” (European Commission, 2008). The European Union’s Scientific Veterinary Committee emphasised the considerable role that selection for faster more efficient growth plays in broiler welfare (SCAHAW 2000) and this has been confirmed by more recent Defra-funded research (Knowles et al, 2008). Despite this, there are no suggestions whatever in the proposed code that birds should be selected for welfare characteristics and that growers should consider rearing slower-growing birds.

Clearly the codes will need to be updated following the report to Council and the European Parliament on the influence of genetic parameters on the welfare of broiler breeders and broiler chickens due in 2010. However, this is no good reason to delay the inclusion of basic recommendations relating to genetics and welfare.

Compassion in World Farming argues strongly that:

- The derogation to permit extreme stocking densities above 39 kg/m<sup>2</sup> should be excluded from the legislation
- Codes which recommend more sustainable stocking densities no higher than 34 kg/m<sup>2</sup> should be maintained and enhanced by strongly recommending that producers do not apply for the derogation to stock at higher than 33 kg/m<sup>2</sup>
- The code against thinning should not be weakened
- Detailed recommendations for choice of breed in relation to welfare of broiler chickens should be included in the code; recommendations relating to genetics and the welfare of broiler breeders should be strengthened
- The code discussing environmental enrichment should make clear recommendations

A ban on the beak trimming of broilers should be included in the legislation. Beak trimming is a painful mutilation. It is already banned by key farm assurance schemes including ACP and Freedom Food. It is due to be banned for laying hens in 2011.

It hasn't been considered necessary for broilers up until now. If feather pecking and cannibalism were to become a problem, this would presumably be due to extreme stocking density, inappropriate genetics or a change in management practice. If this were to occur, the problem should be addressed through its root causes, not through painful mutilation.

The door should not be left open for the practice to be developed.

### **Statutory Instrument**

#### **Should the Statutory Instrument provide the option for producers to stock up to a maximum of 42kg/ m<sup>2</sup>?**

This option should not be provided.

Stocking density directly affects how much space birds have to move in and the extent to which their rest is disturbed due to jostling by other birds. It also indirectly affects other factors such as temperature (especially at bird level), humidity and the quality of the litter and the air. The March 2000 report on broiler chicken welfare by the European Union's Scientific Committee on Animal Health and Welfare (SCAHAW, 2000) concluded that welfare is poorer when stocking density is high and that major problems can only be avoided if the stocking density is 25 kg/m<sup>2</sup> and that above 30 kg/m<sup>2</sup>, even with very good environmental control systems, there is a steep rise in the frequency of serious problems.

There is clear scientific evidence that lameness is affected at densities within this range. One study concluded that "Lower stocking density substantially reduced the prevalence of leg weakness (Sorensen et al, 2000). Another study comparing stocking densities ranging from 30-46 kg/m<sup>2</sup> (Dawkins et al 2004) argued that "at least some aspects of leg health are compromised at or above a stocking density of 42 kg/m<sup>2</sup>" They added that "Chickens grew more slowly at the highest stocking densities" (42 kg/m<sup>2</sup> and above compared with 38 kg/m<sup>2</sup> and below) "and jostled each other more, and fewer of them showed the best gaits."

A recent Defra-funded study also confirmed that higher stocking densities increase levels of leg disorder, (Knowles et al, 2008). This study found that, approximately three days before slaughter, over 27.6% of birds showed poor locomotion (Bristol Gait Score =3) and 3.3% were almost unable to stand (Gait Score = 4-5). Only 2.2% walked normally by this stage (Gait Score = 0).

Lameness is a major cause of pain and poor welfare in broiler chickens. One important study has shown that birds with higher gait scores will self-select the anti-inflammatory drug carprofen, presumably to reduce the pain or discomfort (Danbury et al, 2000). A re-working of the data by a distinguished

academic veterinarian suggests further that all birds with a gait score of 1 or more had significantly higher carprofen intakes (Webster, 2005 p128). He concluded that “all lameness hurts.”

Other studies have shown an increase in ammonia burn levels, such as hock burn and breast blisters, at these highest stocking densities (Sorensen et al, 2000).

It is also harder for stockpeople to progress around the shed to inspect the birds at high densities. Problems suffered by individual birds can be hard to spot when they are surrounded by a mass of their fellows.

A major advantage of the RSPCA's 30 kg/m<sup>2</sup> stocking density requirement, compared with ACP's 38 kg/m<sup>2</sup>, is that it makes it easier to walk around the sheds whilst inspecting the birds. Charles Bourne, chairman of the NFU Poultry Board, stated on the recent Hugh Fearnley-Whittingstall chicken programme that an advantage of moving to Freedom Foods was that he “no longer had to do the broiler farmer's shuffle ... sliding the feet along the floor” in between the birds when inspecting his sheds.

If it is difficult to walk around sheds at 38 kg/m<sup>2</sup>, it is clearly far from practical to observe the flock in the manner that one should to ensure that every bird with a health or welfare problem is observed. This will be even harder above 39 kg/m<sup>2</sup>. Proper stockmanship is simply not possible at these densities.

Furthermore, the derogation permitting densities up to 42 kg/m<sup>2</sup> is based on producers being able to meet mortality rate targets. This may be difficult to police. It has been a common practice to provide additional chicks to allow for expected mortalities. Whilst the plan to check records of mortalities against placement numbers and slaughterhouse records should guard against this, the system is open to abuse, especially since it is not planned to carry out the requirement in the Directive to report daily mortality figures. An additional danger to welfare is that producers may be tempted not to cull birds suffering from painful lameness, and other conditions affecting their welfare, in order to meet mortality targets.

It is not clear that there is a benefit to the industry in permitting these extreme densities. The main Farm Assurance Schemes do not permit them. Permitting these densities involves losing an opportunity to claim that British standards exceed those of our competitors abroad without inconveniencing more than a small fraction of producers.

Compassion in World Farming remains strongly of the view that stocking densities should not be allowed above 30 kg/m<sup>2</sup>, and that only in farms with excellent management systems including ventilation and temperature control. Allowing densities above 39 kg/m<sup>2</sup> would be bad for the industry as well as the birds.

## **Industry Training**

**Comments and suggestions are welcome on any aspect of our proposed methods of implementing the training provision of the Directive via the use of National Vocational Qualifications (NVQs). In particular we welcome views on our proposal to run a “grandfather rights” scheme. Is this something that is needed and how many farmers and stock-keepers would wish to take advantage of this scheme?**

There should be no grandfather rights scheme.

Experience is often of great value, but no truly experienced person will ever consider themselves beyond the need of training. It is not unknown for entirely honest people to maintain misconceptions about welfare and animal behaviour, together with beliefs in the efficacy of bad practices, over a lifetime of work.

Self-certification in this case would not be a credible process.

However, it would only be sensible for animal welfare courses to be tailored according to the level of experience of the operators.

## **Animal Health**

**What are your views on the proposed system for notification of stocking density and approval by Animal Health?**

Compassion in World Farming believes that these higher stocking densities are not conducive to acceptable welfare however good the management or well-designed the system. It is our contention that the standard level should be set at 25 kg/m<sup>2</sup>, with an allowance for 30 kg/m<sup>2</sup> for well designed and managed systems

However the levels are defined, a state inspection should be required for any producer applying to farm to the higher densities. At the very least, it should be a requirement for any producer farming to the higher densities to be a member of an approved farm assurance scheme such as ACP.

Additional information required should include the names and qualifications of the stockpeople and the minimum response time of the farm to any alarm.

**Do you have comments on the proposed system of communication between Animal Health and the Meat Hygiene Service?**

The method of communication seems sensible, though the quantity and quality of the information communicated is not adequate. Decision-making would be more effective if sufficient health and welfare statistics were available (see answer to next two questions).

### **Slaughterhouse Monitoring and Meat Hygiene Service**

**What are your opinions on only requiring producers to provide mortality rate data for each day of production when the value provided for 'House mortality to age when the Food Chain Information completed' exceeds a set trigger level?**

This is not acceptable. Essential information will be lost. Variations in mortality from day to day provide essential information relating to problems in production. This is particularly important if additional information on health and welfare including hock-burn, leg health (including culls) etc is not collated (see answer to next question).

This would also enable more reliable cross-checking of mortality data against supply, slaughterhouse and stocking density information.

The same applies to the collection of cumulative mortality data, though we suspect that some of this information could be worked out automatically.

The government and industry should plan to move towards electronic means of collecting data which would allow for efficient collection and rapid communication of information. Efficient feedback within the loop including producers, integrators, farm assurance and inspectors should be good for health, welfare and production.

Potential difficulties in analysing data highlight the under-funding and under-staffing of the service.

**What are your overall opinions on the proposed monitoring and follow-up procedures at the slaughterhouse?**

It is essential that the monitoring system obtains key information about welfare outcomes, especially if it is not intended initially to collate information about daily and cumulative mortalities.

The notes in Annex E of the consultation on welfare monitoring indicate that several of the post-mortem conditions that are currently recorded have been identified as potential indicators of on-farm welfare. The notes do not indicate which ones these are.

Additional information is also needed from farm records.

The following information is required for an effective monitoring system in addition to daily and cumulative mortality rates:

- Separate leg cull and other cull rates
- % hockburns
- % footpad dermatitis
- % breast blisters
- % PMI rejects (those due to health problems, not slaughterhouse machinery errors)

Much of this information is already often collected. For example, ACP requires statistics for hockburns and PMI rejects. The data should also be of value for both farmers and integrators to indicate any welfare, quality and production problems which may need investigation.

There should also be a clear definition of trigger points for action in terms of percentages for each of these factors.

The monitoring system will also need significantly more resources. A properly funded inspectorate is urgently required that can carry out frequent random as well as intelligence-led inspections at the public expense. It needs the resources to be able to carry out full investigations. Problems may be on farm, but they can also arise from elsewhere in the system including the feed supply, the hatchery management and the genetics of the birds. In the longer term, effective methods of remote monitoring as well as daily on-line recording of key data are required.

Robust means are also required for obtaining information on ammonia levels. Spot checks are essential since planned visits can obtain unrepresentative results.

We should also be moving towards a requirement for all broiler production to be farm-assured.

## **Welfare Code**

### **Is the format of the Code clear and easily understandable?**

It seemed clear and well-written to us.

### **Is it useful to have an Annex containing information on some other legislation affecting meat chickens?**

Yes. It is essential that cross-referencing to all key legislation is provided.

## **Is there any additional on-farm welfare advice that you would find helpful to have in the Code?**

Key to improving welfare is to provide good advice on the main drivers:

- Bird genetics
- Stocking density
- Environmental enrichment
- Good nutrition, management and building and systems design

Good management should be seen as a way of improving welfare in systems with good environments and genetics, not as a way of trying to reduce the impact of welfare problems caused by poorly designed environment and inappropriate genetics.

The RSPCA Freedom Food scheme requires lower stocking densities, slower growing genetics and environmental enrichment. Studies show that this results in better welfare indicators and lower levels of mortality, foot-pad burns and substantially lower levels of hock burns (RSPCA, 2006). The study also showed considerable financial benefits for the scheme.

Key to improving the advice in the new code is to strengthen the recommendations on genetics, stocking density and environmental enrichment.

### **1. Genetics and welfare**

The code should provide clear advice on methods of improving welfare to broilers through choice of genetics. The advice on improving breeder welfare through genetics should be augmented.

The code quotes the regulation that states, based on a Council Directive, that “Animals may only be kept for farming purposes if it can reasonably be expected, on the basis of their genotype or phenotype, that they can be kept without any detrimental effect on their health or welfare.”

It is clear from the literature that genetics has a major influence on health and welfare including its effects on leg health and mortality. The European Union’s Scientific Veterinary Committee emphasised the considerable role that selection for faster more efficient growth plays in broiler welfare (SCAHAW 2000), and more recent research confirms this. According to one recent major Defra Commissioned Study into leg disorders in broilers, “A major influence was bird genotype” (Knowles et al, 2008). A recent major review of broiler welfare concluded that “slow growing breeds have less leg problems and metabolic diseases” (Bessei, 2006). The review also concluded that mortality levels were lower in slow-growing breeds.

Genetics also impacts on levels of a range of health and welfare indicators including cardio-vascular fitness, fatigue, hock-burns, footpad dermatitis as

well as on positive behaviours including activity. Genetics is also responsible for breeder farms having to choose between health and feed-restriction in broiler breeders, resulting in very poor welfare due to hunger.

There are two useful references in the breeder section suggesting means should be found of “minimising the number of elite birds subject to detailed selection performance testing and the age and weight to which they grow on an ad libitum feed regimen” (paragraph 99) and that dwarf genotypes be considered (paragraph 111).

However, the only reference to genetics and the welfare of broilers is in paragraph 7:

*“The strains of bird selected must be suitable for the production system. In particular, care must be taken in the production of birds with extended growing periods (e.g. organic, free range) to use suitable strains and feeding regimes”.*

Genetics is a major factor affecting welfare. There is a clear need for detailed advice on choice of breed in all systems in relation to general fitness and health including lameness and cardio-vascular fitness, resistance to hockburns, breast blisters and footpad dermatitis and in producing a bird which will participate in healthy activity throughout the rearing period. More general advice should also be added on the choice of strains of breeder which may be kept healthy with a minimum amount of feed restriction.

Substantial welfare progress could be achieved for both broilers and breeders by recommending that strains of bird with a genetic potential not to grow more than 45g per day should be chosen, as in RSPCA stipulations.

This advice may well need to be updated once the report to Council and the European Parliament on the influence of genetic parameters on the welfare of broiler breeders and broiler chickens due in 2010 is submitted. However, this is no reason not to provide the best advice available today on this vital issue.

## 2. Recommended stocking density

The recommendation that stocking density should not exceed 34 kg/m<sup>2</sup> (Paragraph 59 of the current code) should be retained.

**The removal of this requirement is a seriously retrograde step.** The science remains clear that welfare declines with higher stocking densities. This has been argued earlier in relation to earlier questions, but the key points are repeated here for convenience.

Stocking density directly affects how much space birds have to move in and the extent to which their rest is disturbed due to jostling by other birds. It also indirectly affects other factors such as temperature (especially at bird level), humidity and the quality of the litter and the air. The March 2000 report on broiler chicken welfare by the European Union's Scientific Committee on Animal Health and Welfare (SCAHAW, 2000) concluded that welfare is poorer when stocking density is high and that major problems can only be avoided if the stocking density is 25 kg/m<sup>2</sup> and that above 30 kg/m<sup>2</sup>, even with very good environmental control systems, there is a steep rise in the frequency of serious problems.

Higher stocking densities also increase levels of leg disorder, (Knowles et al, 2008), a major cause of pain and poor welfare in broiler chickens. This study found that, approximately three days before slaughter, over 27.6% of birds showed poor locomotion (Bristol Gait Score =3) and 3.3% were almost unable to stand (Gait Score = 4-5). Only 2.2% walked normally by this stage (Gait Score = 0). There is clear evidence that lameness is associated with pain (Danbury et al, 2000), even mild levels of lameness (Webster, 2005 p128).

It is also harder for stockpeople to progress around the shed to inspect the birds at high densities. Problems suffered by individual birds can be hard to spot when they are surrounded by a mass of their fellows.

Current Defra welfare codes stipulate that:

The maximum stocking density for chickens kept to produce meat for the table should be 34 kg/m<sup>2</sup>, which should not be exceeded at any time during the growing period. This stocking density is satisfactory for chickens reared to the usual slaughter weights (1.8 – 3.0 kg) but it should be reduced for birds being reared to significantly lower slaughter weights (Defra, 2002).

This code is a compromise. With increasing public concern for the welfare of broiler chickens, and clear evidence that higher stocking densities increase welfare problems, this is a very bad time to weaken the standards set in Defra codes, with inevitable damage to the reputation of English production.

Instead, the Code should highlight the potential benefits of lower stocking densities for the chickens and the producer in terms of reduced mortality, foot

pad burns and hock burns, together with financial benefits based on higher quality (RSPCA, 2006). The Code should strongly recommend that producers do not apply for the derogation to stock at levels above 33 kg/m<sup>2</sup>.

### **3. Thinning**

The phrase “if possible” should be removed from the recommendation not to thin.

The current code states:

*“Deliberately placing a high number of chicks and routinely “thinning” should be avoided as this causes unnecessary distress to the birds and may result in stocking densities that are too high” (Paragraph 64).*

The new code has been weakened by the addition of the qualification “if possible” as follows:

*“Thinning can be stressful and where possible should be avoided. If it is carried out then it should be done with care to ensure as minimal disturbance to the birds and to their feeding and watering as possible and so as to maintain biosecurity” (Paragraph 72).*

In a Defra-funded study already mentioned, 57 out of 176 flocks were thinned at least once before final depopulation (Knowles et al, 2008). Higher levels of lameness were found in the previously thinned flocks, possibly due to the stress involved.

Thinning is a bad practice, commonly performed. It causes stress, facilitates even higher initial stocking densities and threatens bio-security. The code against thinning should not be qualified.

### **4. Environmental enrichment**

Recommendations on environmental enrichment should be strengthened. For sample the recommendation:

*“Enriched environments should be considered to increase the activity of Birds” (Paragraph 47).*

should be stated more strongly, eg “Environments should be enriched to increase the activity of birds”.

The same applies to the suggestion in Paragraph 50 which recommends environmental enrichment as a method of avoiding beak trimming.

## 5. Mutilations

The code should clearly state that broilers should not be beak trimmed. This should also be added to the legislation. Beak trimming of broilers is already forbidden in farm assurance schemes including ACP and Freedom Food and is due to be banned in laying hens in 2011. Beak trimming has not been considered necessary up till now. If feather pecking and cannibalism become a problem due to changes in stocking density, genetics or management, the root causes of the problem should be addressed without resorting to painful mutilation.

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## References

- Assured Chicken Production, 2007. Poultry Standards 2008-9: Standards for Farms Producing Broiler Chickens for Human Consumption. [www.redtractor.org](http://www.redtractor.org) accessed 24/04/09.
- Bessei, W., 2006. Welfare of Broilers – a review. *World's Poultry Science Journal* 62: 455-466.
- Compassion in World Farming, 2009. Factory farmed chicken in decline. [http://www.ciwf.org.uk/includes/documents/cm\\_docs/2009/n/nr3708.pdf](http://www.ciwf.org.uk/includes/documents/cm_docs/2009/n/nr3708.pdf) accessed 08.04.09.
- Danbury, T. C., Weeks, C. A., Chambers, J. P., Waterman-Pearson, A. E. & Kestin S. C., 2000. Self-selection of the analgesic drug carprofen by lame broiler chickens. *Veterinary Record* 146: 307-311
- Dawkins, M.S., Donnelly, C.A. & Jones, T., 2004. Chicken Welfare is Influenced More by Housing Conditions than Stocking Density.
- Defra, 2002. Meat chickens and breeding chickens - code of recommendations for the welfare of livestock. <http://www.defra.gov.uk/animalh/welfare/farmed/meatchks/meatchkscode.pdf> accessed 08.04.09.
- Defra, 2009. Code of Recommendations for the Welfare of Livestock: Meat Chickens and Breeding Chickens – draft. <http://www.defra.gov.uk/corporate/consult/broiler-welfare/annex-g.pdf> accessed 08.04.09.
- European Commission, 1998. Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31998L0058:EN:HTML> accessed 02.04.09.
- Knowles, T.G., Kestin, S.C., Haslam, S.M., Brown, S.N., Green, L.E., Butterworth, A Pope, S.J., Pfeiffer, D.Nicol, C.J., 2008. Leg Disorders in Broiler Chickens: Prevalence, Risk Factors and Prevention. doi: 10.1371/journal.pone.0001545.

RSPCA, 2006. Everyone's a winner.  
<http://www.rspca.org.uk/servlet/Satellite?blobcol=urloblob&blobheader=application%2Fpdf&blobkey=id&blobtable=RSPCABlob&blobwhere=1158755016591&ssbinary=true> accessed 08/04/09.

RSPCA, 2008. RSPCA Welfare Standards for Chicken  
<http://www.rspca.org.uk/servlet/Satellite?blobcol=urloblob&blobheader=application%2Fpdf&blobkey=id&blobtable=RSPCABlob&blobwhere=1158755026986&ssbinary=true>, accessed 08/04/09.

SCAHAW (Scientific Committee on Animal Health and Welfare), 2000. The Welfare of Chickens Kept for Meat Production (Broilers). European Commission, Health and Consumer Protection Directorate-General, March 2000.

Scottish Executive, Environment and Rural Affairs Department, 200?. Meat Chickens and Breeding Chickens  
Codes of Recommendations for the Welfare of Livestock

Sørensen, P., Su, G. & Kestin, S. C.. Effects of age and stocking density on leg weakness in broiler chickens. *Poult. Sci.* 79, 864–870 (2000).

Webster, John, 2005. *Animal Welfare – limping towards Eden*, p128.