DEFRA Consultation on Proposed Legislation and Codes for Broiler Chickens

Submission by Advocates for Animals

Advocates for Animals welcomes the opportunity to comment on the proposed Regulations and revised Code for the welfare of broiler chickens. Our responses to key questions in the consultation are set out below. We have not answered every question, but only those where we feel that we have a remit to comment.

Statutory Instrument:

Should the Statutory Instrument provide the option for producers to stock up to a maximum of 42kg/m²?

No. Advocates for Animals is strongly opposed to the inclusion of the option for producers to stock up to a maximum of 42kg/m². Indeed, we are very disappointed that Defra has chosen not to give serious consideration to the question of whether the option for producers to stock up to a maximum of 39kg/m² should be provided. Whilst it is welcome that the new Regulations will place legal limits on stocking density for the first time, we believe that the densities permitted by the EU Directive are much too high. In line with the recommendations of the EU Scientific Committee on Animal Health and Welfare (SCAHAW, 2000), we believe that the maximum stocking density should be set at 25kg/m², with an allowance for up to 30kg/m² for units that have good environmental control systems and are able to maintain key welfare indicators within acceptable limits.

SCAHAW (2000) reviewed the evidence for the impact of stocking density on welfare. Key statements on stocking density from the SCAHAW report include:

“The greatest threat to broiler welfare due to behavioural restriction would appear to be likely constraints on locomotor and litter directed activities caused by crowding, and consequences for leg weakness, poor litter quality and contact dermatitis.”

“[H]ockburn has been shown to be worse at 30-40kg/m² than at 24kg/m².”

“Studies have shown that walking ability is severely affected at 45kg/m² and is worse at 32kg/m² than at 25kg/m².”

“Increasing stocking density has been found to reduce behavioural activities. Studies have shown that locomotor behaviour, preening and general activity are reduced and disturbance of resting is increased at the higher stocking density in comparisons between 25 and 30, 24 and 32, 28 and 33 and 30 and 36kg/m². These findings are all indicative of poorer welfare at the higher stocking densities.”

The SCAHAW report recognises the importance of environmental conditions and that welfare problems may arise at much lower densities when ventilation and management are poor. They advise that any recommendations on stocking rate should take this into account. However, they stress that this should only apply up to an absolute maximum of 30kg/m², even where good environmental conditions can be maintained. They conclude:

“It is clear from the behaviour and leg disorder studies that the stocking density must be 25kg/m² or lower for major welfare problems to be largely avoided and that above 30kg/m², even with very good environmental control systems, there is a steep rise in the frequency of serious problems.” (emphasis added)
A number of studies conducted since the SCAHAW report was published confirm these findings. For example, Sørensen et al (2000) found that higher stocking density was associated with poorer walking ability and more foot and hock burns. The authors conclude that lower stocking density substantially reduced the prevalence of leg weakness.

A large-scale study by Dawkins et al (2004) compared target stocking densities ranging from 30 to 46kg/m². The results highlight the importance of environmental conditions and also indicate a clear effect of stocking density on important welfare parameters. The proportion of lame birds (those with a gait score higher than zero) increased as stocking density increased, with around double the proportion of lame birds at the highest density compared with the lowest density. Birds also jostled each other more and growth rate decreased as stocking density increased.

A recent large-scale Defra-funded study also confirmed that higher stocking densities increase levels of leg disorder (Knowles et al, 2008). For every 1kg/m² increase in stocking density (as measured at the time of flock assessment) across a range from 15.9 to 44.8kg/m², the authors reported a 0.013 deterioration in flock gait score.

The option to stock up to 42kg/m² should certainly not be provided. A very small minority of producers currently stock above 39kg/m² and such extreme stocking densities are not permitted by the main farm assurance schemes (ACP, 2007; RSPCA, 2008a). Permitting extreme stocking densities up to 42kg/m² can only be detrimental to the reputation of the chicken industry. As the derogation permitting densities above 39kg/m² is based on producers being able to meet target mortality levels, there is a risk that this could lead to less rigorous culling of lame birds and thereby increase suffering. The system is also open to abuse, especially if, as described in Annex E to this consultation, it is not planned to require reporting of daily mortality figures.

The evidence presented above also makes it clear that welfare is likely to suffer if the option to stock up to 39kg/m² is provided and we urge Defra to give serious consideration to whether this derogation should be adopted. We note that Defra’s policy is not to ‘gold-plate’ legislation unless there are exceptional circumstances. We believe there is a strong case for setting higher standards than those in the EU Directive, not only because of the overwhelming scientific evidence but also due to the strength of public opinion on this issue in the UK.

Following recent major television coverage of broiler welfare issues, there has been greatly increased public awareness and concern regarding the welfare of broilers in the UK (RSPCA, 2008b). This has resulted in significantly increased sales of chicken produced to higher welfare standards (CIWF, 2009). Already, one of the ‘big four’ supermarkets in the UK, Sainsbury’s, has committed to convert all of its standard chicken to Freedom Food standards. The Co-op has also committed to convert all of its standard chicken to higher welfare with slower growth rates, lower stocking densities and environmental enrichment. Two other major supermarkets, Marks & Spencer and Waitrose, already set a maximum stocking density of 30kg/m² for their suppliers. We believe that the strength of public opinion on this issue in the UK, reflected in major shifts in consumer purchasing decisions and retailer policies away from intensively reared chicken, constitute exceptional circumstances to justify setting higher standards for broilers than those in the EU Directive.

Independent analysis of production data from farms operating to Freedom Food and Assured Chicken Production standards suggests that the health and welfare benefits of rearing to Freedom Food standards can result in financial benefits to compensate for the financial impact of reducing stocking density and growth rate, even without taking into account any premium paid for the Freedom Food chickens (see our comments on the Impact Assessment below for further details).
It should also be noted that a number of other European countries have already set maximum stocking densities well below 39kg/m², including Sweden, Austria, Germany (voluntary agreement), Switzerland and Norway.

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?

Advocates for Animals is opposed to a ‘grandfather rights’ scheme. Experience is valuable and training courses could be tailored according to level of experience. However, without proper training, common misconceptions about animal welfare and behaviour may be maintained and propagated. Training also allows for the transfer of new and evolving knowledge.

Approved training courses should include a module specifically addressing welfare and behaviour. This module should be mandatory. In addition to the topics in the NVQ Livestock Production Poultry listed in Annex C to this consultation, this module should specifically cover the impact of genetics and housing conditions on poultry welfare, the behavioural needs of poultry, how these relate to the behaviour of poultry in a natural environment and how these needs can be met within commercial farming systems, for example through provision of appropriate environmental enrichment and adequate space.

Animal Health:

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

As previously stated, we believe that the proposed stocking densities are much too high. Whatever the stocking density levels, a state inspection should be required for any producer applying to use any density above the basic level. At the very least, it should be a requirement for any producer using higher densities to be approved by a recognised farm assurance scheme.

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

The system of communication appears to be satisfactory. However, the quantity and quality of the information communicated is not adequate (see our answers to the following 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?

We believe this is not acceptable. Information on daily mortality rates will allow for more robust cross-checking of the data. Information on daily mortality is particularly important if reporting of data on other key health and welfare parameters is inadequate (see our response to the following question). Systems of collecting the necessary data electronically should be developed if there are concerns about the practicality of recording this data.
What are your overall opinions on the proposed monitoring and follow-up procedures at the slaughterhouse?

It is essential that the monitoring system records key information on welfare outcomes. Annex E of this consultation states that several post-mortem inspection conditions that are currently recorded have been identified as potential indicators of on-farm welfare. However, it is not stated what these conditions are. We believe that in addition to daily and cumulative mortality rates, the following information should be collected:

- Leg culls
- Other culls
- Incidence of footpad dermatitis
- Incidence of hock burns
- Incidence of breast blisters
- PMI rejects

The collection of much of this information is already required by major farm assurance schemes. Trigger points for action should be clearly defined for each of the above parameters. Current levels of leg disorders and contact dermatitis are unacceptably high and this must be taken into account in establishing trigger points. The status quo does not represent an acceptable standard of welfare.

It is essential that inspection procedures include unannounced site inspections by the relevant Animal Health Divisional Office. Pre-arranged site inspections are unlikely to provide representative information. Adequate funding and staffing are essential to allow proper monitoring and inspection, particularly if Defra intends to adopt the high-risk strategy of allowing high stocking densities, well in excess of the level where the EU Scientific Committee on Animal Health and Welfare advises that serious problems are likely to be frequent even with very good environmental control systems.

Impact Assessment:

Comments on the assumptions, costs and benefits set out in the Impact Assessment

The impact assessment does not take into account the potential financial benefits that can be achieved by rearing moderately slower-growing birds with lower stocking densities and provision of environmental enrichment.

Independent analysis of production data from farms operating to Freedom Food and Assured Chicken Production standards suggests that the health and welfare benefits of rearing to Freedom Food standards can result in financial benefits to compensate for the reduction in stocking density and growth rate, even without taking into account any premium paid for the Freedom Food chicken (RSPCA, 2006).

The average mortality rate of Freedom Food chickens was 65% lower than that of ACP chickens and the proportions of birds dead on arrival at the slaughterhouse and slaughterhouse rejects were also lower for Freedom Food birds. In addition, rearing to Freedom Food standards produced, on average, 26% more grade A carcasses, which fetch a higher price (ibid.).

These findings suggest that lowering stocking density and limiting growth rate need not result in substantial financial losses and may even have the opposite effect.

Welfare Code:
Is the format of the Code clear and easily understandable?

The Code is clear and well-written. However, more detailed advice and clear recommendations are needed on a number of key issues affecting broiler welfare (see our comments on additional advice in the Code below).

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

Yes, all relevant legislation should be clearly cross-referenced in the Code.

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

Key to improving the advice in the Code is to strengthen the recommendations on genetics, stocking density (including thinning), environmental enrichment and mutilations.

**Genetics**

The major issue of genetics is not presently covered by the EU Directive. The Commission is scheduled to prepare a report on genetics and welfare by 31st December 2010. Whilst we appreciate that Defra may not wish to legislate on the issue of genetics ahead of this, there is no reason to delay providing advice to producers on the basis of the clear scientific evidence available on this vital issue.

The EU Scientific Committee on Animal Health and Welfare (SCAHAW, 2000) concludes:

“It is clear that the major welfare problems in broilers are those which can be regarded as side effects of the intense selection mainly for growth and feed conversion. These include leg disorders, ascites, sudden death syndrome in growing birds and welfare problems in breeding birds such as severe food restriction. It is apparent that the fast growth rate of current broiler strains is not accompanied by a satisfactory level of welfare including health”.

and:

“Most of the welfare issues that relate specifically to commercial broiler production are a direct consequence of genetic selection for faster and more efficient production of chicken meat, and associated changes in biology and behaviour.”


“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.”

Clearly, the fast-growing genotypes commonly used in commercial broiler production result in considerable detrimental effects on the health and welfare of the birds.

Recent research also confirms the major role of genetics in broiler welfare. A large-scale Defra-funded study into leg disorders in broilers concludes (Knowles et al, 2008):

“[T]he primary risk factors associated with impaired locomotion and poor leg health are those specifically associated with rate of growth.”

This study found that on average 97.8% of chickens showed some degree of lameness (gait score 1 or higher) and 27.6% had a gait score of 3 or higher.
Leg disorders are a major cause of pain and poor welfare in broiler chickens. Lame birds will self-select the anti-inflammatory drug carprofen (Danbury et al., 2000). A re-analysis of the data from this study suggests that all birds with a gait score of 1 or above had significantly higher carprofen intakes (Webster, 2005). Webster concludes that “all lameness hurts”. Given the results of Knowles et al. (2008) above, this suggests that the vast majority of commercially reared fast-growing broilers are likely to experience pain as a result of lameness.

A recent review of broiler welfare (Bessei, 2006) concludes that slower-growing breeds have fewer leg problems and metabolic diseases and that mortality levels are lower in slower-growing breeds (Bessei, 2006).

We believe that the Code should provide detailed advice on the impact of genetics on welfare in all systems, including leg problems, cardiovascular fitness, susceptibility to contact dermatitis and general health and activity of the birds. Advice should also be included on the choice of strains of breeder to minimise the requirement for feed restriction.

Major improvements in welfare could be achieved both for birds reared for the table and breeding birds by using strains with the genetic potential for a growth rate of no more than 45g liveweight gain per day, as required by Freedom Food standards (RSPCA, 2008a). The Code should make a clear recommendation that slower growing strains should be used.

Stocking density
The current Code states (Defra, 2002):

“The maximum stocking density for chickens kept to produce meat for the table should be 34 kg/m2, 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.” (paragraph 59)

We are strongly opposed to any weakening of this recommendation.

The evidence (presented in answer to the first question in this submission) is clear that higher stocking densities are detrimental to welfare. With increasing public concern for the welfare of broiler chickens, and clear evidence that higher stocking densities increase welfare problems, it would be inappropriate to weaken the recommendations in the Code.

Instead, the Code should highlight the potential benefits of lower stocking densities both for the chickens and for the producer, in terms of reduced mortality and contact dermatitis, together with financial benefits based on higher quality (RSPCA, 2006). If the UK legislation includes the derogation to stock at levels above 33kg/m², which we strongly believe it should not, at the very least the Code should strongly recommend that producers do not apply to stock above this level.

Thinning
The current Code states (Defra, 2002):

“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 proposed new code has been weakened by the addition of the qualification “where 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).

The practice of thinning is common and is increasing (Sheppard and Edge, undated). It causes stress, threatens biosecurity and results in birds being overcrowded for a longer period. Knowles et al (2008) found higher levels of lameness in flocks that had previously been thinned, possibly due to the stress involved. We are strongly opposed to any weakening of the wording on thinning in the Code.

**Environmental enrichment**
The new draft Code states that environmental enrichment should be “considered” (paragraph 47) and includes some suggestions for possible methods of enrichment (paragraph 50). The wording of the Code should be significantly strengthened to highlight the benefits of enrichment and make a strong recommendation that enrichment should be provided.

**Mutilations**
The Code should clearly state that broilers should not be beak trimmed. This should also be added to the Regulations. Beak trimming of broilers is already prohibited by major farm assurance schemes (ACP, 2007; RSPCA, 2008a) and is due to be banned in laying hens from 2011. Beak trimming of chickens reared for the table has not previously been considered necessary. If feather pecking and cannibalism were to become a problem as a result of increased stocking density, genetics or management, the root causes of the problem should be addressed rather than resorting to a mutilation which is known to cause acute and potentially also chronic pain.

**References**


Dawkins, MS; Donnelly, CA and Jones, TA (2004) Chicken welfare is influenced more by housing conditions than by stocking density. *Nature*, 427: 342-344.


