THE BEAK TRIMMING ACTION GROUP'S REVIEW

Introduction

Laying hens have a tendency to peck, which, if redirected to the plumage and skin of other birds, leads to injury. 'Injurious pecking' is defined by FeatherWel¹ as comprising gentle and severe feather pecking, vent pecking and cannibalism. If left unchecked, it can lead to substantial feather loss, serious injury and death, and potentially, significant welfare and economic implications. Injurious pecking is unpredictable and, once started, problems are difficult to resolve. In order to prevent injurious feather pecking and cannibalism in commercial laying flocks, Member States may take advantage of a derogation permitting beak trimming (i.e. removal of the tip of the beak) in EU Council Directive 1999/74/EC² which lays down minimum standards for the protection of laying hens. The vast majority of UK laying hens housed in caged, free range or barn systems are routinely beak trimmed. In the past, beak trimming was carried out with the use of a hot blade to remove not more than a third of the lower and upper beaks, thereby reducing the sharpness of the beak, and limited management strategies were used to enrich the birds' environment in an attempt to minimise injurious pecking behaviour.

The Beak Trimming Action Group (BTAG) was first convened in 2002, following domestic legislation which set the timetable for a unilateral ban on the routine beak trimming of laying hens to come into force on 1st January 2011. However, progress in the control of injurious pecking under commercial conditions in England was not sufficient to implement a ban on beak trimming at that time. Following a recommendation³ by the Farm Animal Welfare Council, the Mutilations (Permitted Procedures) (England) (Amendment) Regulations 2010 removed the ban, but restricted routine beak trimming to birds under 10 days old, using infra-red technology only. Similar legislation applies in Scotland, Wales and Northern Ireland. In practice, this procedure is carried out on day-old chicks in a hatchery and involves focusing a high intensity infra-red beam at the tip of the beak. During treatment, the chick's head is firmly retained in a rubber holder that prevents movement of its head, enabling precise and reliable treatment of the beak. One to three weeks later the tissue behind the damaged area heals and the beak tip falls off. Permitting routine beak trimming using infra-red technology was intended only as an interim

¹ http://www.featherwel.org/

² Council Directive 1999/74/EC of 19 July 1999 laying down minimum standards for the protection of laying hens ³ <u>http://webarchive.nationalarchives.gov.uk/20121007104210/http://www.fawc.org.uk/pdf/beaktrimming.pdf</u>

arrangement, whilst efforts towards a long-term solution to the issues were developed.

Following the Coalition Government's commitment⁴ to review the policy on the routine beak trimming of laying hens in 2015, with a view to banning this procedure in 2016, BTAG was reconvened in 2011. It was tasked with reviewing the policy on routine beak trimming of laying hens and developing and implementing an action plan to ban this procedure in 2016, without detriment to overall bird welfare.

Ministers have now asked BTAG to undertake a review of all the available evidence and make recommendations to them, including whether beak trimming could be banned in 2016.

BTAG representation

BTAG is made up of representatives from the poultry industry, animal welfare NGOs, veterinary and scientific specialists, retailers, the Farm Animal Welfare Committee, Defra officials and devolved administrations. Further details of BTAG's membership can be found at Annex 1. Compassion in World Farming was represented on BTAG, but after the final meeting withdrew its support for the review.

Evidence

Since reconvening BTAG in 2011, members have shared experience from the UK and overseas on the extent of the problem of injurious pecking and consideration of intervention procedures identified by research and practical implementation. This has included study tours; literature reviews; consideration of current and previous domestic research; the success or otherwise of management interventions and consideration of other contributory factors or solutions, including those associated with genetic or nutritional influences.

Study tours

In 2011, members of BTAG carried out study tours to Austria and Sweden, where they do not beak trim laying hens, to assess how this has been achieved. The visits were useful, but there are difficulties in translating the lessons learned to the majority of UK flocks. The UK tends to have larger flock sizes than either Austria or Sweden, there is consumer demand for larger eggs in the UK and a pressure to use brown strains of birds compared to the white strains of birds favoured in Sweden. Both Austria and Sweden claim they have stopped the severe feather pecking that leads to cannibalism, but they have not fully resolved the injurious pecking which can cause significant feather loss. Significant feather loss is not acceptable to the UK

⁴ Written statement: Official Report, 12 November 2010, Vol. 518, c. 4MC.

industry, consumers, retailers or enforcement bodies, although current levels are higher than would be considered acceptable in some flocks.

Literature reviews

Two comprehensive reviews of the feather pecking literature were published by external researchers in 2013 (Rodenburg et al 2013⁵; Nicol et al 2013⁶), the abstracts of which are at Annex 2. To bring the evidence base up-to-date and identify any key research developments following these reviews, Defra carried out a literature review in September 2015 and considered all relevant papers published in the intervening period; this is enclosed at Annex 3. It identified that there was a high level of research interest in feather pecking and other injurious behaviour, and that recent publications had focused more on understanding the genetics of injurious pecking and testing management techniques designed to reduce its prevalence in commercial production.

University of Bristol study

In 2012, Defra commissioned a research project at the University of Bristol (Executive Summary at Annex 4), aimed at assessing the effectiveness of management strategies in reducing injurious pecking in non-cage flocks of birds with intact beaks. 20 commercial flocks, of which 19 were free range and one barn, were recruited to participate in the study by the laying hen industry. The volunteer flock sizes ranged from 1,200 to 16,000 hens, with an average size of 6,329 hens. Information for comparative purposes was obtained from 18 flocks that had preceded the study flocks on the same farms (12 beak trimmed flocks and six intact-beak flocks) and from six beak trimmed flocks housed at the same time, on the same farms as six of the intact-beak flocks. Management strategies were then suggested for the study flocks to prevent outbreaks of injurious pecking. These strategies included the use of pecking distractions, such as pecking blocks and nets containing straw; highly absorbent compressed wood pellets to improve litter condition, and methods of encouraging range use, such as providing artificial shelter. Data on mortality, bodyweight, plumage condition and behaviour were obtained at 40 weeks. with 19 flocks followed until end of lay (due to the late recruitment of one flock).

One of the objectives of the study was to develop a communication strategy predominantly aimed at disseminating practical information to farmers on interventions aimed at reducing the risk and likelihood of injurious pecking.

⁵ Rodenburg TB, van Krimpen MM, de Jong IC, de Haas EN, Kops MS, Riedstra BJ, Nordquist RE, Wagenaar JP, Bestman M and Nicol CJ (2013) The prevention and control of feather pecking in laying hens: identifying the underlying principles. Worlds Poultry Science Journal 69/ 2: 361-373

⁶ Nicol CJ, Bestman M, Gilani A-M, de Haas, EN, de Jong IC, Lambton S, Wagenaar JP, Weeks CA and Rodenburg TB (2013) The prevention and control of feather pecking: application to commercial systems. *Worlds Poultry Science Journal 69/4*: 775-788

The key findings of the study were:

- No problems with mortality, bodyweight or injurious pecking behaviour were experienced by intact-beak flocks during rear. More effort was invested in rearing intact-beak flocks than the industry norm.
- Outcomes for study flocks during lay were highly variable in terms of the extent of injurious pecking and mortality levels (which mirrors what happens in specialist flocks which are not beak trimmed and to a lesser extent in the UK beak trimmed population). Some flocks performed very well with low mortality and some were kept on beyond 72 weeks of age, one until 90 weeks. At approximately 25 weeks, two of the 16,000 bird intact-beak flocks experienced substantial problems with injurious pecking and very high mortality levels. One of these flocks had to be emergency beak trimmed.
- At 40 weeks, 18 of the 20 flocks achieved acceptable levels of mortality (according to a 5% threshold that had been previously agreed by BTAG). By 71 weeks, only 12 out of 19 flocks achieved acceptable levels of mortality (according to a 9% threshold agreed with BTAG).
- When injurious pecking did occur, the consequences in the intact-beak flocks were far more serious than in beak trimmed flocks, in terms of direct skin and tissue damage, subsequent chronic infection and reduced bird welfare.
- More effort was invested in managing intact-beak laying flocks than the industry norm. The average recurrent cost of the management strategies actually implemented on each farm was calculated using slightly different methods as either £260/1,000 birds or £313/1,000 birds.
- Study flocks that had been preceded by a previous <u>intact-beak</u> flock showed a significant improvement in end of lay mortality, plumage condition and a tendency towards an improvement in financial performance. This suggests that, with experience and increased uptake of management strategies, levels of mortality can be reduced and kept within acceptable limits. It is therefore possible that the additional costs of the management strategies may be outweighed by improved margins on these farms.
- Overall, study flocks that had been preceded by a previous <u>beak-trimmed</u> flock showed no significant difference in end of lay mortality or financial performance. This suggests that any positive effects of the management strategies were countered by the increased risks of making the transition from beak-trimmed birds. We consider that the strategies probably ameliorated the risks of transition, but were insufficient to produce improvements in performance in intact-beak study flocks relative to previous beak-trimmed flocks.

- The two flocks that had the worst injurious pecking were both large, 16,000 bird flocks, which is becoming the norm in the UK. We detected no overall significant relationship between total mortality and flock size, but a study on a larger scale would be required to examine effects of flock size in more detail.
- Further uptake of the management strategies was considered generally beneficial for all flocks by the farmers and stakeholders involved in the study. This uptake was promoted by the development of the 'FeatherWel' website and guide 'Improving Feather Cover: A guide to reducing the risk of injurious feather pecking occurring in non-cage laying hens'. These were produced by the University of Bristol, in consultation with the British Egg Industry Council (BEIC), the RSPCA, the Soil Association and AssureWel. In conjunction with the assessments, benchmarking and feedback being provided by AssureWel (see below) this offers producers opportunities to reduce injurious pecking in all flocks, regardless of whether they are trimmed or have intact beaks. The University of Bristol also contributed to a number of advisory sessions with farmers throughout England and more formal presentations to farmers, veterinarians and poultry scientists.

SRUC studies on enriched cages

The Scottish Government funded similar research (summary at Annex 5) to that outlined above, but in birds housed with intact beaks in enriched cages. This was carried out by Scotland's Rural College (SRUC). The aim of Study 1 was to assess the effects of two bird strains (commonly used Hyline Brown and less common Lohmann Classic, which has been used successfully without beak trimming in non-cage systems), two beak treatments (trimmed or not), and the provision of extra enrichment or standard enrichment, on mortality, behaviour, and feather condition in a commercial environment. Sixty-four cages of 80 birds each were used within a commercial hen house that housed a further 1,476 cages. The house was managed to suit the majority of birds in the flock, i.e. Hyline Brown.

Two cages of hens (both non-beak trimmed, Lohmann strain, one with and one without extra enrichment) were depopulated at 48 weeks of age due to pecking-related mortality. (The Home Office licence governing this work required that the birds had to be beak trimmed or removed, and the farm opted for the latter, although this culling would not have been carried out in typical commercial practice.) In one of these cages, 5 birds (6.25% of the cage) died due to injurious pecking-related mortality over a period of 6 months; in the other, 7 birds (8.75% of the cage) died due to injurious pecking-related mortality over a period of 4 weeks. As a result, injurious pecking mortality was assessed in two ways: by taking into account remaining healthy birds that were subsequently culled in the two problematic cages ('maximum') and by estimating how many further losses might have occurred if those

cages had been allowed to progress until the end of the trial at 71 weeks, based on the rate of deaths to 48 weeks ('estimated').

Overall, maximum injurious pecking mortality was significantly affected by breed x beak treatment, with Lohmann non-beak trimmed hens having greater mortality (12%) than any other group (<1%), however estimated injurious pecking mortality was similar across all four breed x beak treatments. Estimated injurious pecking mortality was only affected by overall breed effects (1.25% in Lohmann birds; 0.12% in Hyline), and overall beak treatment effects (1.02% in non-beak trimmed birds; 0.35% in beak trimmed). Extra enrichments used had no effect on injurious pecking related mortality.

It is important to note that:

- Since this shed of hens was managed as a Hyline flock, the way in which the injurious pecking might have been managed (by dimming the lights) could not be carried out because it would have affected the egg production rate of the majority of the hens in the shed; and
- Not trimming the standard strain (Hyline) resulted in doubling the maximum injurious pecking mortality (0.16% in non-beak trimmed; 0.08% in beak trimmed), although this was still low. Observations of pecking behaviour were too sparse to analyse, however feather condition deteriorated more quickly over time at certain body sites, both with Lohmann hens and with non-beak trimmed hens.

This small scale study suggests that the Hyline Brown strain could be managed in furnished cages without beak trimming, but that injurious pecking-related mortality would increase. The results for the Lohmann strain should not be over-emphasised, because management techniques that might have mitigated injurious pecking could not be implemented.

SRUC's Study 2 focussed on the effect of alternative diets on performance of nonbeak trimmed hens and also further explored the use of extra enrichments, and their effects on mortality, behaviour, and feather damage (as an indicator of feather pecking) in a research facility.

The dietary treatments (protein, fibre) had some effects on bird production. Extra fibre reduced, and control fibre levels increased, weight gain in animal-based diets compared to plant-based diets. Treatments had no significant effect on egg production, which closely followed the breed standard, but there were some significant effects of protein source and fibre levels on egg quality. There were some small but statistically significant effects, in that extra enrichment led to less feather damage than for hens without extra enrichment, and hens fed extra fibre showed reduced pecking at inanimate objects.

occurrence of feather pecking and pecking damage in this study, there was no conclusive evidence of the efficacy of these treatments on injurious pecking behaviour. It would be important to trial the treatments again, in a commercial environment and over a longer period.

Assurewel

AssureWel⁷ is a collaborative project led by the University of Bristol, RSPCA and Soil Association supported by the Tubney Charitable Trust. The project is aimed at developing a system of welfare outcome assessments for the major farm animal species, so that welfare can be measured and the impact of management interventions evaluated. For laying hens, these assessments have been developed for use by both assurance schemes and individual producers, to monitor feather cover in non-cage systems.

A comparison of data from years 1 and 2, across Freedom Food and Soil Association flocks, demonstrates overall improvements in feather score on the farms in the schemes. Data were available from 830 farms assessed in year 1 and 743 farms in year 2. Of these, 81% of flocks were free-range, 17% organic and 3% barn; 79% of flocks were beak trimmed. The mean age of the birds at assessment was 45 weeks and the mean flock size was around 7,750 birds. The number of birds recorded with feather loss reduced by a third from year 1 to year 2, from 33% (13% moderate/severe) to 23% (6% moderate/severe) for the back and vent regions (indicative of injurious pecking), and 32% (10% moderate/severe) to 22% (6% moderate/severe) for the head and neck regions (indicative of aggressive interactions or mechanical wear).

A full analysis of year 3 data is not yet complete; however, draft results suggest there was little overall improvement in feather score between years 2 and 3. The average percentage prevalence of birds with feather loss was 23% (8% moderate/severe) for the back and vent regions, and 22% (6% moderate/severe) for the head and neck. 744 flocks were assessed, with an average flock size of around 8,900 birds.

Data are continuing to be amassed. These data enable producers to compare their results with other producers and benchmark their own performance with previous flocks, to identify targets for improvements, particularly on feather loss and mortality. The data additionally provide a robust assessment of feather loss at scheme level, allowing the monitoring of non-cage industry prevalence.

⁷ http://www.assurewel.org

Other solutions

Genetics

The breeding Industry has been investing in balanced breeding programmes over the last 15 years, but a genetic solution where efficiencies, animal welfare and sustainability have to be balanced is not a 'quick fix'. The advances in genomic selection and breeding technologies have enabled the choice of breeding candidates to be made much earlier in life due to determination of a "genomics based" breeding value. However this is still in the very early stages of development and has yet to establish benefits on selection traits, including behaviour.

In fact, selection for bird survival has been implemented in company breeding programmes for several decades and companies include survival as a breeding goal trait in their breeding programmes. Most initial field studies have used bird survival to a given age as the trait for selection for higher survival in individuals. However, unless family information is included (i.e. using information on related animals housed in groups), higher mortality rates and lower productivity result as, inadvertently, more aggressive birds are selected for breeding. The most recent research suggests that to reduce mortality due to cannibalism, selection should not only consider the direct effect of an animal's own genes, but also the indirect (or 'associative') effect of an individual on its group members.

A bird's chance of survival is highly influenced by the cannibalistic behaviour of its cage or colony members, and survival in purebred laying hens is known to be influenced by social interactions with others. New breeding programme research is aiming for the genetic improvement of laying hens so that they become more 'sociable'.

Dr Joanne Conington, a genetics expert serving on the Farm Animal Welfare Committee, was co-opted to advise BTAG on the current state of play into genetics research aimed at reducing the likelihood of injurious pecking in laying hen strains. She visited the Hendrix Genetics (ISA) and Hy-line (Wesjohann) breeding companies to assess current and planned research in this area. Areas being investigated include the assessment of sociability and robustness in genetic selection. Genomic selection technology is also being used to improve bird survival and may accelerate progress on genetic improvements in this area. Dr Conington concluded that the greatest influences on survival remain non-genetic, meaning that management and feeding strategies continue to be key components in the evaluation of survivability of laying hens. She advised that the earliest commercially available strains, with a significantly reduced propensity to peck, could become available is 2025. This has a significant impact on setting timetables for improvements in reducing injurious pecking using genetic interventions, whilst accepting that such interventions would not, in isolation, be likely to eliminate injurious pecking.

Nutrition

(See also Study 2 in earlier section on SRUC studies on enriched cages.)

There are numerous published studies that highlight a whole range of potential nutritional 'trigger factors' that can be responsible for outbreaks of injurious pecking. These factors are well understood and as such great care is taken to provide the bird with a nutritionally balanced diet to ensure that simple nutritional deficiencies do not occur.

Beyond the direct nutrient effects there have also been a number of studies that have indicated that the interaction of diet density and fibre levels in the diet can have an impact on plumage condition and mortality caused by injurious pecking. In simple terms birds fed on lower density diets with higher fibre levels spend more time feeding and less time on other pecking behaviour.

The industry is now more aware of the benefits of fibre but it is clear from both published research and commercial experience that lower density, higher fibre diets cannot fix the problem of injurious pecking in isolation. For this type of diet to work under commercial conditions, a flock needs to be managed to ensure that it increases its feed intake sufficiently both to achieve expected performance and the distraction from other pecking activity.

The nutritional and management inputs during the rearing phase have also been shown to be important again with reference to diet density and fibre level. There is also interest in the impact of dietary changes on subsequent bird behaviour but this area would need more research before it could be applied to the commercial situation.

Economic analysis

Any unilateral ban on beak trimming of laying hens at this stage would be viewed as re-instating 'gold plating', following the removal of the ban from legislation in 2010. It would currently be very likely to put England's laying hen industry at a competitive disadvantage, compared with producers in the rest of the UK and other Member States who can make use of the derogation permitting beak trimming in the EU laying hens directive. There would be implications if England went ahead with a ban, but the Devolved Administrations did not. All four UK pullet hatcheries are located in England, so it could mean that a de facto ban would come in, in the Devolved Administrations. Alternatively, the hatcheries could be driven to move into Scotland, Wales or Northern Ireland or chicks/pullets could be sourced from other European countries (such as France, which still permits hot blading), which would severely undermine the hatcheries and damage the Lion Quality Scheme. The cost of any potential ban on beak trimming in England would depend on how the legislation was phrased, e.g. whether any ban was on the keeping of routinely beak trimmed birds

rather than, or as well as, the procedure itself. If the keeping of beak trimmed birds was not banned, hatcheries outside England could supply beak trimmed birds to English producers, defeating the purpose of any ban, as well as disadvantaging hatcheries in England. The cost of a ban would have to be set against the economic savings that would result if the industry no longer had to beak trim and the range of welfare benefits that may result by implementing the management strategies.

Beak trimming in the European Union

The majority of Member States make use of the derogation in the laying hens directive, which permits beak trimming (i.e. removal of the tip of the beak) to prevent feather pecking and cannibalism. There is no move to ban beak trimming in France, Spain, Italy, Portugal, Greece or Eastern Europe where hot blade beak trimming is still allowed. The Republic of Ireland permits infra-red beak trimming. In practice its day-old chicks come from England, so any proposed ban on beak trimming in England would lead to a de facto ban in the Republic of Ireland or to them sourcing chicks from elsewhere.

Austria (a brown egg market) does not make use of the derogation due to the requirements of its assurance scheme, and Finland and Sweden (both of which have a white egg market) have legislation which bans beak trimming. Denmark (also predominantly a white egg market) extended its voluntary industry-led ban on beak trimming caged hens to barn and free range birds in July 2014. In certain German Länder (with a brown egg market), the industry has signed a 'voluntary binding agreement' with the Government to stop beak trimming from 1st August 2016 and to stop stocking pullets with trimmed beaks from 1st January 2017. Egg producers will receive a premium of $\in 1.70$ per bird if they do not beak trim. The Netherlands (40% brown and 60% white birds) plans to ban beak trimming from 1st September 2018, dependent on a satisfactory outcome of trials on non-trimmed, non-cage birds being reviewed in 2017.

Beak trimming outside the European Union

Norway and Switzerland have both banned beak trimming of laying hens. In Australia, beak trimming is banned in one state – the Australian Capital Territory, where there are very few laying hen flocks. In the remaining states, hot blading is permitted, but infra-red is the most common method used. In the USA, beak trimming is still permitted and the most common method used is hot blading. In New Zealand, its laying hen welfare code permits beak trimming using infra-red technology only on chicks up to 3 days old. In the vast majority of non-EU countries, there is no legislation in place governing beak trimming.

Conclusion

BTAG members have worked hard over the last four years to study the issue of injurious pecking in both rearing and laying flocks. Progress has been made in a number of areas:

- Further understanding the extent of the issue in both rearing and laying flocks, its causes and possible approaches to further improving laying hen welfare.
- Helping to establish practical and successful management intervention strategies to reduce the incidence of injurious pecking in all flocks both trimmed and non-trimmed.
- Recognising the importance of managing the transition from rearing to laying house to reduce, as far as possible, the number of changes to the hen's environment.
- Exploring methods for producers to assess the extent of injurious pecking in their flocks, benchmark their progress against previous flocks and compare their progress with other producers.
- Considering the potential impact of genetics and nutritional factors on injurious pecking, and possible solutions.
- Understanding the animal welfare, economic, social and practical repercussions if there was to be a ban on the beak trimming of laying hens in England.

Despite this considerable progress, BTAG concludes that an imminent ban on beak trimming could result in significant welfare problems through outbreaks of feather pecking and cannibalism.

Once injurious pecking establishes itself in a flock, it can be difficult to resolve, leading to chronic and sometimes irreversible injury and damage. As was the case in two of the large pilot flocks in the University of Bristol study, the consequences of injurious pecking in intact-beak flocks is far more serious in terms of direct skin and tissue damage, subsequent chronic infection and reduced bird welfare. It can also result in a significant economic loss to the producer. In one of these large flocks, emergency beak trimming using the hot blade method was necessary to help control a severe outbreak of injurious pecking, which is stressful for the birds and for everyone involved. Evidence to date indicates that unlike infra-red beak trimming, hot blading causes chronic pain and therefore bird welfare may be severely compromised.

In other flocks, excessive mortality, as measured by agreed thresholds, although not directly attributable to injurious pecking *per se*, was related to secondary systemic bacterial infection which gained access through skin damaged by injurious pecking.

The inability to predict when injurious pecking is likely to occur and its high variability in laying hen populations - both beak trimmed and non-beak trimmed - means that in our view a ban on beak trimming should not be introduced in 2016 for free range, barn or caged flocks. It still cannot be reliably demonstrated that under commercial conditions all laying hen flocks can be managed without the need to beak trim, without a greater risk to their welfare than that caused by beak trimming itself.

However, BTAG also believes that the deferring of any ban on beak trimming of laying hens should only be an interim step. Our view is that progress must continue to be made in a stepwise fashion to accelerate the timeframe within which the widespread use of beak trimming in commercial flocks could be avoided. We believe there is considerable scope for further improvement in the control of injurious pecking through greater efforts by producers to implement further mitigating management interventions. A requirement to demonstrate progress formally in this area should be incorporated into all farm assurance schemes for laying hens and in any revision of the welfare code for laying hens.

All BTAG members agree that progress in this area is already being made and that further improvements in bird welfare could be achieved through strengthening current farm assurance scheme standards and regular audit of such standards. The RSPCA and Compassion in World Farming members consider that this should be further supported by legislation, requiring significant and sustained attempts to prevent injurious pecking to be implemented before placing a trimmed flock. However, industry members disagree that legislation is necessary, noting that the progress already being made could be best moved forward via assurance schemes.

Recommendations

In making the following recommendations, BTAG emphasises that the primary consideration is to safeguard the welfare of laying hens:

Recommendation 1 - A ban on beak trimming of laying hens should not be introduced in 2016, as, on the basis of practical experience and available research, it is considered that this could be detrimental to overall welfare in an unacceptable number of laying hens. Compassion in World Farming disagree with this recommendation. They believe that a ban on beak trimming should be introduced in 2016, with an implementation date to be determined by the Secretary of State, based on further reviews of progress.

Recommendation 2 – Producers and the industry as a whole should nevertheless continue to make efforts to avoid the need for beak trimming, particularly by reducing

injurious pecking (as in the following recommendations), to the point where there is sufficient confidence to stop beak trimming. This may be achieved in some systems more readily than in others. Progress should be formally reviewed by Government. If significant progress is not being made, then it should consider further formal action, including legislation.

Recommendation 3 – To take forward Recommendation 2, all laying hen producers should draw up bespoke action plans to implement the management strategies drawn up by FeatherWel. BTAG recognises that these management strategies have been incorporated into the latest version of the BEIC's Lion Code of Practice⁸ and the RSPCA Welfare Standards for Laying Hens⁹ (implemented by RSPCA Assured scheme, Freedom Food) and recommends that all laying hen farm assurance schemes should monitor uptake of the management strategies by their members. RSPCA and Compassion in World Farming members expressed their minority view that the requirement for such action plans should be laid down in legislation.

Recommendation 4 - All farm assurance scheme audits/inspections should monitor mortality, feather cover and records of injury attributable to injurious pecking in all laying hen production systems so that producers can benchmark their own performance with previous flocks and identify targets for improvement. Progress should be assessed on a flock-by-flock basis as part of the review of the farm's veterinary health and welfare plan. The aim should be for continuous improvement in mean feather loss scores, using the AssureWel scoring system (already in place in non-cage systems), and injuries attributable to injurious pecking. Failure to make such improvements should be seen as possible non-compliance with the scheme requirements.

Recommendation 5 – BTAG (or a similar independent body, such as the Laying Hen Welfare Forum) should continue to monitor progress in reducing the incidence of injurious pecking in the national flock. Such a body should report to Ministers on a biennial basis with the results of assurance scheme monitoring of feather cover and mortality attributable to injurious pecking along with updates on the proportion of beak trimmed flocks and uptake of management strategies.

Recommendation 6 - Knowledge transfer aimed at disseminating developing research and practical information to farmers on interventions aimed at reducing the risk and likelihood of injurious pecking should continue. For this to happen, FeatherWel and other resources will need to be updated as new knowledge and findings emerge from a growing body of work around the world, and industry should show a robust commitment to implementation of relevant advice in all production systems. A funding source should be identified.

⁸ https://www.egginfo.co.uk/british-lion-eggs/about/british-lion-code-practice

⁹ http://science.rspca.org.uk/sciencegroup/farmanimals/standards/layinghens

Recommendation 7 – Industry should continue to consider other approaches to reduce the likelihood of injurious pecking. These could include nutrition, genetics (including choice of white versus brown egg laying strains) and other management and husbandry strategies. The breeding companies should keep up the momentum and make use of genomic technology to accelerate progress to reduce the likelihood of injurious pecking in laying hen strains. It may be appropriate for these approaches to be considered on an EU-wide basis. Further research is warranted into nutritional trigger factors and the impact of dietary changes on the incidence of injurious pecking, and into approaches to reduce injurious pecking through various dietary inputs.

Recommendation 8 – The Government should support research which is needed to establish sensitive and cost-effective methods for the earliest possible detection of injurious pecking, and to develop evidence-based protocols to respond promptly with the aim of avoiding the escalation and spread of this behaviour.

November 2015