

**ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD**

**USE OF SUBSTANCES TO REMOVE SURFACE CONTAMINATION OF  
POULTRY CARCASSES (ANTIMICROBIAL TREATMENT)**

1. The attached paper outlines the draft Commission Regulation implementing Regulation No 853/2004 with regard to the approval of substances which may be used to remove surface contamination from poultry carcasses.
2. Members are invited to :-
  - Give their view on the safety assessment of the 4 substances under the conditions of use listed in annex I of the draft regulation
  - Comment on the draft regulation with respect to the approval procedure, conditions of use and official controls.
  - Comment on the assessment procedure of antimicrobial treatment of meat using bacteriophage.

**Secretariat  
June 2007**

# **USE OF SUBSTANCES TO REMOVE SURFACE CONTAMINATION OF POULTRY CARCASSES**

## **BACKGROUND**

1. Regulation (EC) No 853/2004 lays down specific rules on the hygiene of food of animal origin for food business operators. It provides that substances other than potable water cannot be used to remove surface contamination unless the use of the substance has been approved. An early draft regulation concerning the approval of such substances for poultry meat was the subject of paper ACM/731 considered by the committee in March 2005. The conclusions were that more work was needed on the substances proposed before their use was approved in particular concerning any reaction products. Since paper ACM/731 was considered, the European Food Safety Authority (EFSA) has carried out further work, and modifications to the draft regulation have been made. The current draft rev 8 is under going discussion within the commission and further information on the environmental impact of the proposed substances will be requested. This additional information is expected to take at least 6 months. At a meeting of an EU working group on implementing measures of the hygiene regulation (April 07) an initial discussion on the classification of bacteriophage as antimicrobial treatments was tabled. Currently the commission have not decided how the use of any antimicrobial treatments containing bacteriophage should be assessed.

## **PURPOSE OF THE PAPER**

2. The purpose of this paper is to seek ACMSF views on the draft regulation as it currently stands. The committee's opinion as to whether the work undertaken by EFSA addresses the safety concerns raised in 2005, if it is timely to seek the views of consumers and their thoughts on the UK/FSA line to take in any future negotiations/discussions in Brussels are sought. In addition the committee's views on the assessment of antimicrobial treatments of meat containing bacteriophage are invited.

## **MAIN NEW POINTS OF THE DRAFT REGULATION**

3. The EFSA adopted a scientific opinion on 6<sup>th</sup> December 2005 in which it concluded that treatment of poultry carcasses with either chlorine dioxide, acidified sodium chlorite, trisodium phosphate or peroxyacids does not constitute a safety concern. It also concluded that application by spraying rather than dipping would reduce the exposure to residues and any by products that might arise (recital 11). Combinations of several substances should not be used as the toxicological effect has not been properly evaluated (recital 12). Exact labelling requirements are provided for food of animal origin treated with a substance for the removal of surface contamination (recital 13). Substances used for the removal of surface contamination do not affect the status of fresh meat as defined in EC 853/2004 (Recital 14). However the definition of fresh meat in the poultry meat marketing standards EEC 1906/90 needs to be modified before the regulation can apply (Recital 15).

4. In summary the main points of the draft regulation are
  - 4.1 Article 1 approves certain substances which may be used to remove surface contamination from poultry carcasses and lays down their conditions for use. It does not apply to substances used to treat, control or prevent infection in live animals.
  - 4.2 Article 2 refers to the list of approved substances and conditions for their use being in Annex I.
  - 4.3 Article 3 details that additional substances can be approved and added to Annex I following a risk assessment carried out by the EFSA.
  - 4.4 Article 4 : application of an approved substance and rinsing with potable water must be carried out in the slaughterhouse on whole carcasses before chilling.
  - 4.5 Article 5 poultry meat and preparations made from carcasses treated with approved substances must be labelled to inform the consumer as set out in Annex II which requires a clear label including the words “treated with antimicrobial substances”.
  - 4.6 Article 6 details the role of the competent authority with respect to inspection and control of the conditions of use and the possibility of laying down additional conditions of use on a case by case basis.

## **THE ISSUES**

5. Discussions have taken place in several EU working groups and the draft regulation has developed in the light of these discussions. There are not expected to be any major changes to the draft with respect to the safety of poultry meat derived from carcasses treated with an approved substance.
  - 5.1 Politics/international trade: International trade particularly with the USA continues to be on the agenda. The issue of antimicrobial substances has been discussed in 2007 in the context of the WTO negotiations. FSA have restated their opposition to the use of chlorine in poultry processing over the level permitted in potable water. However if all the conditions of the draft regulation are met FSA are not in principle opposed to food business operators considering the use of approved substances within the context of HACCP.
  - 5.2 Microbiological efficacy and safety evaluation data: In 2006 EFSA issued a guidance document outlining the required data to be submitted for assessment of efficacy and safety of processing aids.
  - 5.3 Relationship of antimicrobial treatments with other food safety controls: The concern that treatments may be employed in place of hygienic processing/on farm control programmes is addressed ( recital 5) by the requirement to comply with the zoonosis regulation EC 2160/2003 and the

control programmes at primary production. In addition recital 1 provides that the use of approved substances must not affect the obligations of the food business operator to comply with the requirements of regulation 853/2004. Recital 6 details regulation 882/2004 which requires official controls to be carried out to verify compliance with rules concerning preventing, eliminating or reducing to acceptable levels risks to humans.

5.4 Toxicological assessment: The opinion of the Scientific Panel on food additives, flavourings, processing aids and materials in contact with food (AFC) on a request from the Commission related to Treatment of poultry carcasses with chlorine dioxide, acidified sodium chloride, trisodium phosphate and peroxyacids was published in the EFSA journal in December 2005 - The summary of the opinion states “The Commission has asked EFSA to update the previous opinion expressed by the Scientific Committee on Veterinary Measures Relating to Public Health (SCVPH) ... with regard to the toxicological risks to public health from possible reaction products (e.g. semicarbazide) of chlorine dioxide, acidified sodium chlorite, trisodium phosphate and peroxyacids when applied on poultry carcasses. When examining the possibility for reaction products, no halomethanes have been reported to be formed in treatments with chlorine dioxide in water. No chlorinated organics have been found after treatments of poultry carcasses with acidified sodium chlorite. No detectable effects on the oxidation status of fatty acids in poultry carcasses were reported following treatment with peroxyacids. Furthermore, semicarbazide was not detected (limit of detection of 1 g/kg) in laboratory tests on poultry carcasses after treatment by immersion with acidified sodium chlorite. The Panel notes that the initial health concerns about semicarbazide are no longer relevant. As set out in the EFSA opinion on semicarbazide (2005), new data showed that semicarbazide is not genotoxic *in vivo*. Based on conservative estimates of poultry consumption in European adults, the Panel estimated potential exposure to residues arising from these treatments. On the basis of available data and taking into account that processing of poultry carcasses (washing, cooking) would take place before consumption, the Panel considers that treatment with trisodium phosphate, acidified sodium chlorite, chlorine dioxide, or peroxyacid solutions, under the described conditions of use, would be of no safety concern. The Panel notes that spraying of poultry carcasses with antimicrobials, by comparison to dipping and immersion treatments, will reduce the exposure to residues and by-products that might arise. The Panel stresses that the use of antimicrobial solutions does not replace the need for good hygienic practices during processing of poultry carcasses, particularly during handling, and also stresses the need to replace regularly the water of chiller baths.

5.5 Labelling : Annex II provides clear and specific labelling for all poultry meat and preparations produced from treated carcasses.

5.6 Consumer opinions: The ACMSF suggested that consumer opinions on the use of antimicrobial treatment of poultry meat were sought. This was not carried out whilst there was uncertainty with the development of the draft regulation. The safety assessment has been completed and the conditions

of use and labelling requirements established for the 4 products in the annex, is it now timely to seek consumer opinions or should we wait until data on the environmental impact have been submitted and reflected in the draft regulation? If we seek consumer opinions on antimicrobial treatment should we include the use of bacteriophage?

## **DISCUSSION OF THE CURRENT DRAFT REGULATION**

6. Post slaughter antimicrobial treatment using an approved substance during poultry processing could be a useful intervention where on farm control programmes have failed to control the hazard for example *Campylobacter* or salmonella positive flocks. The efficacy and safety data of substances have to follow the guidance produced by the EFSA in order to be assessed. Approval can only be given following an assessment by EFSA.
7. The four substances listed in the annex have been assessed by EFSA and concluded that under the given conditions of use there was no safety concern.
8. The requirement to comply with the zoonosis regulation and in particular the on farm control programmes addresses the concern that use of substances could be instead of control in primary production. The competent authority is responsible for ensuring that the use of approved substances does not compromise proportionate controls throughout the food chain. On a case by case basis the competent authority may impose additional conditions of use.
9. If the regulation is agreed, the use of approved substances will be the food business operator's decision and will take into account consumer concerns.
10. Treated meat may be referred to as fresh meat following the modification of the definition of fresh meat in the poultry meat marketing standards ( EEC 1906/90).

## **SUMMARY**

11. The draft regulation provides a framework for approval and conditions of use for antimicrobial substances in poultry processing. The substances in the annex of the draft implementing regulation have undergone a safety and efficacy assessment by EFSA who concluded there was no safety concern under the prescribed conditions of use. There is a requirement to label poultry meat and preparations produced from treated carcasses. The commission have not decided how the assessment of antimicrobial treatments using bacteriophage should be undertaken.

## **ACMSF ACTION**

12. The ACMSF is invited to :
  - Give their view on the safety assessment of the 4 substances under the conditions of use listed in annex I of the draft regulation
  - Comment on the draft regulation with respect to the approval procedure, conditions of use and official controls.

- Comment on the assessment procedure of antimicrobial treatment of meat using bacteriophage.