

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD

**ANTIMICROBIAL TREATMENT (DECONTAMINATION) OF
POULTRY MEAT**

1. The attached paper outlines the draft Commission Regulation laying down specific conditions for antimicrobial treatment of food of animal origin.
2. Members are invited to :-
 - give their view on the suggested line to take at paragraph 10 in future negotiations/discussions in Brussels;
 - give any thoughts they may have on microbiological issues including benefits of chemical decontamination; and
 - give their opinion on the implications for the use of antimicrobial treatments for foods of animal origin.

**Secretariat
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ANTIMICROBIAL TREATMENT (DECONTAMINATION) OF POULTRY MEAT

BACKGROUND

1. At the Commission Working Group (Implementing Measures of the Hygiene Regulations related to veterinary subjects) meeting on 10 January 2005, a draft Commission Regulation (SANCO/2111/2004 Rev. 1, copy attached) laying down specific conditions for the antimicrobial treatment of food of animal origin was tabled. During the short discussion on this paper some Member States expressed concerns about the use of antimicrobial treatments and the inadequate risk assessment so far carried out.

PURPOSE OF THE PAPER

2. The purpose of this paper is to seek ACMSF views on the UK/FSA line to take in future negotiations/discussions in Brussels; to seek any thoughts they may have on microbiological issues including benefits; and to give their opinion on the implications for the use of antimicrobial treatments for foods of animal origin.

THE MAIN POINTS OF THE DRAFT REGULATION

3. The draft Regulation states that following a thorough assessment specified antimicrobial agents can be used for decontaminating specified products of animal origin. (recital 5) It is based on the opinion of 14-15 April 2003 of the Standing Committee of Veterinary and Public Health (SCVPH) on the evaluation of antimicrobial treatments for poultry carcasses. The SCVPH concluded that decontamination could constitute a useful element in further reducing the number of pathogens provided that an integrated control strategy is applied throughout the entire food chain, including hygienic measures applied on the farm, during transport and in the slaughter and processing plant (recital 3).
4. In summary, the main points of the draft Regulation are:
 - 4.1. Article 1: provides the conditions of use for the substances specified in Annex 1 on the products of animal origin listed in Annex 1 (2) of the draft Regulation. Currently Annex I - lists three products for use only in poultry processing namely chlorine dioxide, acidified sodium chlorite and trisodium phosphate. Further products and additional uses could be added at a later stage following an EFSA opinion. The antimicrobial substance must be rinsed off the food (with potable water) to such an extent that it will not have a technological function in the final product.
 - 4.2. Article 2: antimicrobial treatment of foods of animal origin should be part of an effective hazard analysis and critical control points programme; it should not be used as the primary or only pathogen control measure.

- 4.3. Article 3: the food business operator should inform the consumer, by labelling, when food of animal origin has been treated with one of the antimicrobial substances listed in the proposal. Annex II – sets the labelling instructions for individual products of animal origin and currently lists poultry carcasses and fresh poultry pieces. Labelling is not required where the treated poultry carcasses or pieces have had the skin removed or have been processed into meat products or meat preparations.

THE ISSUES

5. The brief discussion of the draft Regulation, at the Working Group meeting of 10 January 2005 and the FSA's own initial analysis of the proposal suggests that the draft Regulation impinges on many subject areas, including:
- 5.1. Politics/international trade: A main driver for the draft regulation appears to be international trade (particularly with USA). The products listed are permitted for use in the USA and other non EU countries
- 5.2. Microbiological efficacy and available safety evaluation data: An FSA research project studying physical methods of poultry decontamination is also reviewing the available data on the three proposed chemical decontamination processes. The draft review was unable to locate any data on the interaction of these products with the growth dynamics of pathogens and spoilage bacteria post decontamination or on the presence or safety of any reaction products.
- 5.3. Relationship of decontamination techniques with other food safety interventions: Although there is a concern that decontamination may be employed in place of hygienic processing/on-farm pathogen control measures their use could have a potential food safety benefit if used in special circumstances in addition to existing controls. E.g. known positive *Campylobacter* or *Salmonella* positive flocks if no other control measure is available or has been successful.
- 5.4. Toxicological assessment: are we content with the conclusions of the SCVPH opinion of 14-15 April 2003? They appear to lack scientific rigour - especially in light of recent findings reported in the literature that semicarbazides may be produced as disinfection by-products when hypochlorite compounds are used as a decontaminant of food. (Hoenicke et al 2004). EFSA have been asked to reconsider their 2003 opinion re semicarbazide in the light of the most recent information.
- 5.5. Codex The Codex Committee on Food Additives and Contaminants (CCFAC) working closely with the Codex Committee on Food Hygiene have identified the need for an assessment of the risks associated with the residues and reaction products of active chlorine compounds in food and an assessment of the benefits relating to the reduction or elimination of microbiological contamination. A discussion paper on the

terms of reference for the FAO/WHO joint expert consultation to conduct a comprehensive assessment of the use of active chlorine is an agenda item for the CCFAC April 2005 meeting.

5.6. Consumer concerns about eating products of animal origin that have been treated with chemical decontamination processes are unknown. There is however consumer concerns about the use of chlorine products to wash some foods.

5.7. Labelling: Article 3 and Annex II of the draft Regulation sets out the requirements for the labelling of meat treated with antimicrobial agents and currently lists poultry carcasses and portions but excludes poultry meat once the skin is removed, meat products and meat preparations.

5.7.1. If using the agents is shown to be safe, is there a need to label treated meat?

5.7.2. If labelling is required, should it include further processing e.g. skinned portions, meat preparations/products?

DISCUSSION OF THE DRAFT REGULATION

6. Post-slaughter decontamination during poultry processing may be a worthwhile intervention in the reduction of pathogenic micro-organisms, particularly where hygienic processing is unable to control the hazard when present in animals at slaughter e.g. *Campylobacter* in poultry. However the efficacy and safety of any proposed measure should be thoroughly investigated in the context of overall risk reduction for the consumer.

7. It is important to set the potential risk reduction against any toxicity arising from use the agents involved. Currently the toxicological assessment appears to be very superficial. Moreover, for several of the compounds the carcinogenic potential is classed as "not classifiable" and information on reaction products is not available. Given the known carcinogenicity of some reaction products formed from the use of chlorine in food it would seem that further evidence of safety needs to be demonstrated before their use should be permitted.

8. At the Working Group meeting on 10 January 2005 the Commission agreed that, since the SCVPH opinion had been published, evidence had been produced that the chlorine compounds assessed can interact with animal protein to produce semicarbazide. The European Food Safety Authority (EFSA) had been asked to evaluate the significance of this.

9. In the future other antimicrobial agents and other products of animal origin could be added to the annexes of the draft regulation following an EFSA opinion. The Commission will send a letter to CVOs of all Member States (MS) seeking information on what antimicrobial substances EFSA should be asked to evaluate. This has not yet been received.

SUMMARY

10. In summary, the preliminary view of officials on the draft Regulation is that:

- 10.1. it is somewhat premature - more information and, where appropriate, work is needed on all aspects of the use of the proposed antimicrobial decontamination treatments before their use is approved;
- 10.2. the SCVPH opinion is inadequate in terms of toxicological assessment;
- 10.3. a risk assessment as proposed by Codex is required to consider the potential food safety benefits in the context of any possible toxicity.
- 10.4. the adoption of the proposal in its current form could possibly harm efforts to promote hygiene measures in other parts of the food chain;
- 10.5. consumer concerns about the use of antimicrobial treatments in food of animal origin and requirements for labelling are unknown.

11. Although at present the proposals are limited to three products in poultry processing, there are implications for other products and other foods of animal origin.

ACMSF ACTION:

12. The ACMSF is invited to:

- 12.1. give their view on the suggested line to take at paragraph 10 in future negotiations/discussions in Brussels;
- 12.2. give any thoughts they may have on microbiological issues including benefits of chemical decontamination; and
- 12.3. give their opinion on the implications for the use of antimicrobial treatments for foods of animal origin.