Controversy: Growth promoters, clauses of safeguard in the European Community

Fernandes T.H.

in

Brufau J. (ed.), Tacon A. (ed.).
Feed manufacturing in the Mediterranean region: Recent advances in research and technology

Zaragoza : CIHEAM
Cahiers Options Méditerranéennes; n. 37

1999
pages 61-62

Controversy: Growth promoters, clauses of safeguard in the European Community

T.H. Fernandes
Facultade Medicina Veterinària; Rua Gomes Freire, 1199 Lisboa, Portugal

SUMMARY - As chairman of the session I will give an overview of the four communications focusing an antimicrobial promoters acting by allowing full benefit from the dietary nutrients and/or suppression of specific toxin-producing organisms. As a conclusion, the use of anti-microbials in animal production might have an impact on medical and public health, although this possibility has never been directly proven. Therefore further work is needed to evaluate the potential risk in their use.

Key words: Antimicrobial promoters, public health clauses of safeguard.

RESUME - *"Controverse : promoteurs de croissance, clause de sauvegarde au sein de la Communauté Européenne". En tant que président de la session, je ferai un rappel des quatre communications se rapportant aux promoteurs antimicrobiens qui permettent de tirer le maximum de profit des éléments nutritionnels du régime et/ou d'éliminer des organismes spécifiques producteurs de toxines. Comme conclusion, l'utilisation de substances antimicrobiennes en production animale pourrait avoir un impact sur la santé publique et le milieu médical, bien que cette possibilité n'ait jamais été directement prouvée. Par conséquent des travaux ultérieurs sont nécessaires afin d'évaluer les risques potentiels liés à leur utilisation.*

Mots-clés : *Promoteurs antimicrobiens, santé publique, clauses de sauvegarde.*

As Chairman of this Plenary Session I would like to make a global overview of the 4 communications focusing an antimicrobial growth promoters acting by allowing full benefit from the dietary nutrients and/or suppression of specific toxin-producing organisms.

Food safety was first considered by Dr. G. Bories giving a detailed description of the present legislation, the proposed changes and the new safety requirements for feed additives. He mentioned the limits of epidemiological studies and new concepts on risk analysis enhancing the differences on the roles of risk assessment and risk management, conducted respectively by scientists and politicians. Presently he considers that there is a loss of confidence in science and politics, being therefore difficult to move from the zero risk concept, which has the public's favor, to the realistic and science based toxicological acceptable level of risk.

Subsequently, Prof. A. Anadón made a comprehensive evaluation of the current uses of antibiotics in animal production and their possible mode of action. He enhanced the relationships with the immune system and the mechanisms of acquisition of antibiotic resistance in animal bacteria describing and discussing the eventual possible contribution of antibiotics feed additives used for growth promotion purposes in this domain.

The magnitude and significance of transfer of resistance *in vivo* and cross-resistance with other products was also referred to as of importance to the possible anti-microbial feed additives. It was considered essential to establish field studies to monitor the frequency of bacteria resistance to each antibiotic Feed additive and to assess the possible risks of adverse effects on the environment from the persistence and the propagation of organisms in the environment.

Current data indicates that the antibacterial feed additives present in soil are degraded by micro-organisms, therefore do not induce major toxic effects an terrestrial or aquatic fauna or plants. However, there is a need to continue monitoring their environmental impact by thesis of ecotoxicity.

In the future it will be necessary to establish residue studies, the kinetics of marker residues in target tissues in order to set withdrawal periods on the basis of the MRLs.

The current examples of evidence of resistance in isolates from animals and the fear of existence of a link with resistance in humans was stressed by Dr. R. Bywater. Information was given of the non-scientific but politically motivated consequences based on speculation rather than facts. Special emphasis should be given to future studies on the extent, the ease or difficulty with which resistance can pass from animals to man. he also said that the "precautionary principle" presently adopted by European politicians should be replaced by a full risk analysts conducted by scientists. This comprises risk assessment, risk management and risk communication. Scientists are presently called to express their views on risk assessment while the other elements are under political control. Therefore it was emphasized that these later steps should not precede the risk assessment step.

Some possible alternatives (e.g., microbial cultures, oligosaccharides and lectins) for the well established production enhances were presented by Prof. G. Piva where such compounds saturate and bind to the enterocyte receptors present on the cell walls of pathogenic bacteria, therefore preventing them from colonizing the intestinal lumen.

Conclusions

The concern that the use of anti-microbials in animal production might have an impact on medical and public health is recognized, although this possibility has never been directly proven. Therefore further work is needed to evaluate the potential risk involved in their use.

While world trade demands the removal of barriers on trade of food, at the same time it allows specific countries to introduce clauses of safeguard to protect their own citizens. The ability to control imports from other countries who will continue to use these products is very limited. However, the risk from carcass contamination has to be removed and may be the use of irradiation of meat and meat products is at last practical though not yet consumer-favored way to tackle this problem by decontaminating meat products in a more efficient way for the future in Europe.