



EUROPEAN COMMISSION

HEALTH & CONSUMER PROTECTION DIRECTORATE-GENERAL

Directorate C - Scientific Opinions

C3 - Management of scientific committees II; scientific co-operation and networks

**REPORT OF THE SCAN ON THE SAFETY ASSESSMENT OF  
PROBIOTIC PRODUCT PRONIFER MSB ®<sup>1</sup>**

(adopted on 25 January 2001)

**EXECUTIVE SUMMARY**

**PRONIFER - MSB**

Manufactured by Produktionsgemeinschaft F.u.H. Egger G.m.b.H., Austria

The active ingredients of this product are four *Lactobacillus* strains and one *Pediococcus* strain. Two principal strains of the product, *Pediococcus acidilactici* and *Lactobacillus plantarum*, representing 70% of the bacteria present in the product, are resistant to tetracyclines, an important group of antibiotics in human and veterinary medicine. The resistance is coded by the *tetS* gene as demonstrated by PCR amplification. Tetracycline resistance genes are often located on highly mobile genetic elements, such as plasmids and transposons. The *tetS* gene was originally found in *Listeria monocytogenes* but has also frequently been found in other bacterial species including enterococci. The presence of *tetS* in different bacterial species indicates a high degree of mobility. Animals are believed to act as a reservoir for bacteria resistant to antibiotics. Transfer of resistance genes from bacteria derived from animals to bacteria in humans may contribute to dissemination of resistance to antibiotics used for therapy. The selective pressure posed on the bacteria through the wide use of tetracyclines in veterinary and human medicine may further amplify the frequency of transfer of tet genes, such as *tetS*, from bacteria in animals to bacteria in humans. Because of the possible dissemination of tetracyclines resistance genes in animal bacterial populations, the food chain and the environment, SCAN considers that Pronifer-MSB poses a risk when used in animal nutrition.

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<sup>1</sup> See also the SCAN "Report on the use of certain micro-organisms as additives in feedingstuffs"