

Antibiotic Use in Livestock Livestock farming plays a very important role in the agriculture of the European Community. Therefore, the elimination of antibiotics from feed, but improvements in the productivity of pigs and poultry, has been achieved through the use of feed additives, such as omega 3, immunoglobulin, organic and inorganic acids, zinc oxide, yeast derived ?Feed manufacturers and authorities establish procedures and instructions for the effective and safe use of authorized and prescribed veterinary medicinal products, for oral administration, other than medicated feeding stuff, such as mixing drinking water with veterinary medicinal products or manually mixing a veterinary medicinal product in feed, which are administered by farmers to food-producing animals. These instructions take into account the scientific recommendations of the European Medicines Agency, established by Regulation (EC) No. 726/2004, on measures to minimize over dosage or under dosage, unintended administration to animals other than those targeted, the risk of cross-contamination, and the release of these products into the environment [12,26]. The impact that medicated food has on human health, and implicitly how antibiotic resistance is installed after ingesting food with antibiotics residues, is a topic that we will detail in a later section, but it is worth mentioning that while some bacteria are intrinsically resistant to these drugs, there is currently no evidence to suggest that ionophore resistance is transferable [22,28]. Feed business operators, which handle manufacturing, storing, transporting, or placing medicated feed and intermediate products on the market, must be authorized by the competent authority, in accordance with the authorization system, to ensure both the safety of the feed and the traceability of the products. Some of the most frequently used antibiotics in ruminants are ionophores, a distinctive class of antibiotics that can influence intestinal flora to achieve increased energy and amino acid availability and improved nutrient utilization [22]. The relevant legislation provides the establishment of additional instructions for cleaning of the equipment used in the administration of respective medicinal products, in order to avoid cross-contamination and to reduce resistance to antimicrobials [12]. Such administration must be adequately described in the product information to ensure correct administration and proper dosing of certain veterinary medicinal products, to be administered orally to animals, in feed, or in drinking water, especially in the case of treating groups of animals. The US Department of Agriculture noted that approximately 88% of growing swine receive antibiotics in their feed for disease prevention and growth promotion purposes, commonly tetracyclines or tylosin [22]. Regulation (EU) 6/2019 establish rules for the authorization of use of veterinary medicinal products in feeding stuffs, including the manufacture, distribution, advertising, and surveillance of such products [12]. In terms of animals of economic interest and poultry farms, various active substances are used, including antibiotics, .in order to maintain the health of the animals and to have a better yield for breeding