

# Antimicrobial Feed Additives for Livestock – The Jamaican Context

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Livestock refers to any breed or population of animal kept by humans for a useful, commercial purpose. The livestock farmer's purpose is to produce animals for sale with the intention of making a profit.

The farmer can secure profits by rearing animals fed on their optimum nutritional regime and of course ensuring they are not diseased, which can be a major setback. Maintenance of healthy livestock

requires prevention of infection by pathogenic organisms.

Antimicrobial Feed Additives are defined as any substance of natural, semi-synthetic or synthetic origin added to feeds that kill or inhibit the growth of a microorganism. Antimicrobials can be categorized as antibacterial, antiprotozoal, antifungal and antiviral drugs.

Antimicrobials in livestock production are used primarily for therapeutic treatment of identified illnesses, prophylaxis or the prevention of an illness in advance, and lastly, performance enhancement. Markers of enhanced performance include, but are not limited to: increased rate of weight gain and

increased feed efficiency. These all have a significant impact on the farmer's bottom line.

There is an issue however with production enhancing antimicrobials that are deemed medically important for human medicine. Since development of microbial resistance to antibiotics in livestock can be spread to people, this is an issue that should not be taken lightly. These antimicrobials include, but are not limited to: penicillins, tetracyclines, sulfa drugs and cephalosporins. Although it has been shown that these additives improve growth rate and feed conversion efficiency, their use should not be over represented.

In Jamaica, the major suppliers of feeds for livestock do offer medicated feeds i.e. rations with antimicrobial feed additives, as well as non-medicated feeds. The most common additives include "coccidiostats" - those used in



*Coccidiosis can be a major threat to poultry production and is prevented by antimicrobials called "coccidiostats" added to feed. These drugs are not utilized in human medicine, and are withdrawn from the feed at the appropriate time prior to slaughter.*

the prevention of coccidiosis in ruminants and poultry. Monensin (brand name Rumensin) and Lasalocid (brand name Bovatec) are just two examples. *These are ionophores and are not medically important since these products are used exclusively in animals and do not have*

*any links to therapeutic antimicrobial resistance in either human or animal medicine.*

In conclusion, antimicrobial feed additives still have a vital role to play in food production. They can be used therapeutically to treat individual animals diagnosed with an illness; control the spread of an illness in a herd; or even prevent an illness in healthy animals when exposure is likely....but should be done strictly under the supervision of your veterinarian.