

## Specialty Feed Ingredients' pivotal role in the fight against Antimicrobial Resistance

Nutrition has a crucial function in animal performance as well as in the maintenance of optimal animal health and welfare status. Specialty Feed Ingredients used in feed and pet foods are pivotal contributors to ensuring adequate nutrition and/or optimal animal welfare including support of animals' defences against, for example, biological stressors. Maintaining animals in optimal health and, thus, with higher resilience to stressors, such as pathogenic micro-organisms, can prevent or limit the need for veterinary treatments. The Table below attempts to summarise some of the different benefits of Specialty Feed Ingredients in maintaining animals' optimal welfare and health.

Role of Specialty Feed Ingredients	Benefits for maintaining farmed animals in good health and welfare
<b>Feed Preservation</b>  <b>Binding and inactivation of mycotoxins</b>  <b>Reduction of presence of undesirable microorganism in feed, control of fermentation</b>	Limit the exposure of feed to colonization by undesirable micro-organisms (moulds, bacteria and their metabolites);  Avoid nutrient losses via spoilage
	Adding an additional layer of safety by limiting the negative effect of mycotoxins
	Prevent, manage and control the growth of spoilage and pathogenic microbial agents
<b>Improvement of gut function and immunity</b>	Improve digestibility of feed, hence limiting anti-nutritional factors and the risk of gut inflammation;  Maintain a proper balance of the gut microbiome, limiting the development of potential pathogens;  Reduce the need for neutrophils, used in the defence against microbial agents;  Increase the capacity of the body to repair from mucosa lesions