Claims

1. Microelement organic chelate complex compound, for the inhibition of pathogenic bacteria, having the general formula

$$(M)_n(X)_m(Y)_o$$

wherein M is Zn, Cu, Fe, Mn, Ag;

X is NH_4, H_2O;

Y is an amino acid (preferably selected from the group consisting of the 20 naturally occurring amino acids), a fatty acid (preferably formic acid, acetic acid or propionic acid), hydroxy acid (preferably maleic acid or lactic acid) and/or polyamino-carboxylic acid (preferably nitrilotriacetic acid or ethylenediamine tetraacetic acid);

n is 0-6;

m is 1-6;

o is 1-8.

2. The compound according to claim 1, wherein the facultative pathogenic bacterium is selected from the group consisting of: Salmonella, E. coli, Clostridium sp., Brachyspyra sp., Arcanobacterium sp., Staphylococcus sp., Streptococcus sp., Lawsonia sp., Eimerella sp.

3. The compound according to claim 2, wherein the pathogenic bacterium is selected from the group consisting of: *Salmonella enterica, Salmonella enterica subp. Enterica serovar enteritidis, Salmonella typhimurium, Salmonella infantis, Salmonella gallinarium, S. paratyphi, S. abortus-equi, S. java, S. cholerae, S. typhi-suis, S. sendai, Escherichia coli, Clostridium perfringens, Cl. barati, Cl. sordellii, Cl. botulinum A-F, Cl., novyy A, B, C, D, Cl. septicum, Cl. chuvoei, Cl. hystoliticum, Cl. sporogenes, Cl. tetani, Brachyspira hyodysenteriaea, Brachyspira pilosicoli Arcanobacterium piogenes, Staphylococcus aureus, Streptococcus agalactiae, Lawsonia intracellularis.*

4. The compound according to any one of claims 1 to 3, for the treatment or prevention of a disease selected from the group consisting of: poultry enteric diseases, swine enteric diseases, bovine enteric diseases, as well as superficial treatments, for example ulcerative pododermatitis with necrotic dermatitis of poultry, mastitis of dairy cattle, metritis of dairy cattle, hoof lesions of ungulates, enteric and superficial diseases of other animals.

5. The compound according to any one of claims 1 to 4, selected from the group consisting of: zinc tetraammonium bis-glycinate chelate, zinc maleinate chelate, zinc diammonium maleinate chelate, zinc tetraammonium maleinate chelate, zinc diammonium methionate chelate, copper diammonium lysinate chelate, zinc diammonium aminate chelate, preferably zinc mono-glycinate chelate, zinc di-glycinate chelate, zinc bis-glycinate chelate, copper mono-glycinate chelate, copper di-glycinate chelate, copper bis-glycinate chelate, zinc diammonium bis-maleinate chelate, zinc bis-maleinate chelate, copper bis-maleinate chelate, copper diammonium $(maleinate)_2$, chelate, more preferably zinc mono-glycinate chelate, copper mono-glycinate chelate, zinc diammonium bis-maleinate chelate, copper diammonium $(maleinate)_2$ chelate, zinc diammonium ethylenediamine tetraacetic acid chelate, copper diammonium ethylenediamine tetraacetic acid, most preferably copper diammonium bis-maleinate, zinc diammonium ethylenediamine tetraacetic acid chelate, zinc $(H_2O)_2$ ethylenediamine tetraacetic acid chelate, zinc $(H_2O)_2$ maleinate chelate, copper diammonium ethylenediamine tetraacetic acid chelate, copper $(H_2O)_2$ ethylenediamine tetraacetic acid chelate, copper $(H_2O)_2$ bis-glycinate chelate copper $(H_2O)_2$ bis-glycinate chelate, copper ammonium bis-glycinate chelate.

6. The compound according to any one of claims 1 to 5, for the inhibition of bacteria proliferating in the small intestine part of the digestive tract or on the surface of the skin and causing diseases therein, and/or for the prevention or treatment of diseases caused by said bacteria.

7. Composition comprising the compound according to any one of claims 1 to 6, optionally together with standards additives.

8. Composition comprising at least two, synergistically acting compound according to any one of claims 1 to 6, optionally together with standards additives.

9. Feed additive comprising the compound according to any one of claims 1 to 6 or the composition according to any one of claims 7 or 8.

10. The feed additive according to claim 9, in releasable form from a suitable carrier material, powder and/or microgranulate, having a water content of no more that 12-14%, preferably 12%.

11. Feed comprising the compound according to any one of claims 1 to 6 or the composition according to any one of claims 7 or 8 or the feed additive according to any one of claims 9 or 10.

12. Method for preparing a feed additive, said method comprising admixing the compound according to any one of claims 1 to 6 or the composition according to any one of claims 7 or 8, and optionally further standard feed additive components.

13. Method for preparing a feed, said method comprising mixing the compound according to any one of claims 1 to 6 or the composition according to any one of claims 7 or 8 or the feed additive according to any one of claims 9 or 10 into standard feed.

14. Use of the compound according to any one of claims 1 to 6 or the composition according to any one of claims 7 or 8 or the feed additive according to any one of claims 9 or 10 or the feed according to claim 11 in stock farming for increasing body-weight gain and/or increasing feed utilization and/or increasing egg yield and/or decreasing mortality in the population of poultry, preferably broiler or laying hen or turkey, and/or swine, preferably fatteners or piglets, and/or dairy cow.

CLAIMS

1. An invention not claimed in any divisional application.