137759, amendments 3 June 2022

Claims:

1. Fish feed composition comprising ~~at least one of~~ the lactic acid bacteria *Lactobacillus fermentum* and *Lactobacillus plantarum* *as* living and active cultures of bacteria.

2. Fish feed composition as claimed in claim 1 wherein the bacteria are isolated from the intestinal content of rainbow trout~~comprising both *Lactobacillus fermentum* and *Lactobacillus plantarum as* living and active cultures of bacteria~~.

3. Fish feed composition as claimed in claim 1 or 2, wherein the feed is in the ~~shaped~~form of ~~into~~ pellets or granulates comprising a coating with the lactic acid bacteria.

4. Fish feed composition as claimed in any of the claims 1 to 3, wherein the feed comprises pellets wherein the lactic acid bacteria are in a coating, ~~coated onto,~~ adsorbed onto, and/or absorbed into pores of the pellets.

5. Fish feed composition as claimed in any of the claims 1 to 4, wherein the feed comprises further lactic acid bacteria ~~are included in the feed~~.

6. Fish feed composition as claimed in any of the claims 1 to 5, wherein the feed is a granular feed comprising a coating comprising the lactic acid bacteria and wherein the coating further comprises an oil selected from the group of a plant oil and fish oil.

7. Fish feed composition as claimed in any of the claims 1 to 6, wherein the feed is a granular feed comprising a coating comprising the lactic acid bacteria and wherein the coating further comprises at least one stabilizer, such as lecithin.

8. Fish feed composition as claimed in any of the claims 1 to 7, wherein the feed comprises fats (lipids), proteins, and carbohydrates, and optionally also either of vitamins, amino acids and minerals.

9. Fish feed composition as claimed in any of the claims 1 to 8 comprising polyunsaturated fatty acids.

~~10.~~ Method of producing a granular fish feed comprising the lactic acid bacteria *Lactobacillus fermentum* and *Lactobacillus plantarum*~~at least one lactic acid bacteria~~, the method comprising a step of coating feed granulates with the ~~at least one~~ lactic acid bacteria, applying the bacteria from a bacterial suspension at an evacuated atmosphere, wherein the bacterial suspension comprises the ~~at least one~~ lactic acid bacteria and an oil and/or a stabilizer.

10.

~~11. Method as claimed in claim 8 wherein the bacterial suspension used for the coating comprises cultures of at least one of *Lactobacillus fermentum* and *Lactobacillus plantarum.*~~

~~12.~~11. Method as claimed in claim 10 ~~or 11~~ wherein the stabilizer is an emulsifier selected from the group of lecithins.

~~13.~~ Fish feed for use in treatment of fish, for improving at least one of intestinal health and innate immune response, administering a fish feed composition comprising ~~at least one of~~ the lactic acid bacteria *Lactobacillus fermentum* and *Lactobacillus plantarum* to the fish, wherein the feed is a granular feed comprising a coating which comprises the lactic acid bacteria.

12.

~~14. Fish feed for use according to claim 11, wherein the feed is a granular feed comprising a coating which comprises the lactic acid bacteria.~~

~~15.~~13. Fish feed for use according to claim 1~~3~~2 ~~or 14~~, wherein the use strengthens the fish's intestinal health by improving the barrier status on the body's surfaces on either of the gills and mucus layer on body and intestines.

~~16.~~14. Fish feed for use according to claims 1~~3~~2 to 1~~4~~3, wherein the use either of increases the number of mucous cells in epithelium, enhancing the skin barrier functions; prevents or reduces inflammation in the intestines; or includes an up-regulation of mucin genes.

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