

Claims:

1. Fish feed composition comprising 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.
3. Fish feed composition as claimed in claim 1 or 2, wherein the feed is in the form of 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, 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.
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*, the method comprising a step of coating feed granulates with the lactic acid bacteria, applying the bacteria from a bacterial suspension at an evacuated atmosphere, wherein the bacterial suspension comprises the lactic acid bacteria and an oil and/or a stabilizer.
11. Method as claimed in claim 10 wherein the stabilizer is an emulsifier selected from the group of lecithins.
12. 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 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.
13. Fish feed for use according to claim 12, 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.
14. Fish feed for use according to claims 12 to 13, 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.