CLAIMS

1. A dietary fibre composition comprising at least one cereal grain component containing β-glucan, characterized in that β-glucan is selected to have a peak molecular weight in the range of ~~40~~ 500 kDa to 3000 kDa, a solubility at 37°C of at least ~~20~~50% of extracted β-glucan to the total β-glucan content in an extract of the fibre composition ~~prepared according to the method disclosed herein~~, and with a viscosity of the extract at 37°C of at least ~~30~~ 500 mPa·s measured at $30s^{-1}$; the extract being prepared by mixing a 5 g sample of the fibre composition in an Erlenmeyer flask with 75 ml of 20 mM sodium phosphate buffer, pH 6.9, containing 10 mM NaCl; stirring the mixture slowly for 15 min at 37°C; adding 250 µl of human salivary α-amylase solution (5mg/ml in 3.6 mM $CaCl_2$); stirring the mixture for further 15 min; adjusting the pH to 2.0 with 6M and 1M HCL; adding 625 µl of porcine solution (0.5 mg/ml in 0.9 % NaCl); incubating the mixture for 30 min at 37°C; adjusting the pH to 6.9 with 3M NaOH; adding 1.25 ml of pancreatin solution (0.5 mg/ml in 20 mM sodium phosphate buffer containing 10 mM NaCl); continuing incubation for 90 min; and centrifuging an aliquot for 10 min at 7,000xg.

2. A dietary fibre composition according to claim 1, characterized in that β-glucan is selected to have a molecular weight in the range of 500 kDa to 2000 kDa.

3. A dietary fibre composition according to claim 1 or 2, characterized in that the β-glucan is selected to have solubility of ~~at least 50% of extracted β-glucan to the total β-glucan content in the fibre composition, preferably~~ at least 75% of extracted β-glucan to the total β-glucan content in the fibre composition.

~~4. A dietary fibre composition according to any of claims 1-3, characterized in that the viscosity of the extract at 37°C is least 100 mPa·s measured at $30 s^{-1}$ and preferably at least 500 mPa·s measured at $30 s^{-1}$.~~

~~5.~~4. A dietary fibre composition according to any of claims 1-43, characterized in that said composition has a protein content of ~~about~~ 2-20% by weight.

~~6.~~5. A dietary fibre composition according to any of the preceding claims, characterized in that said composition has a β-glucan content of less than 50% by weight, preferably less than 40% by weight, more preferably less than 30% by weight.

~~7.~~6. A dietary fibre composition according to any one of the preceding claims, characterized in that said composition has a β-glucan content of at least 1% by weight.

~~8.~~7. A dietary fibre composition according to any one of the preceding claims, characterized in that said composition has a fat content of ~~about~~ 3% by weight.

~~9.~~8. A dietary fibre composition according to any one of the preceding claims, characterized in that said composition has a fibre content of ~~about~~ 10-50% by weight.

~~10.~~9. A dietary fibre composition according to any one of the preceding claims, characterized in that the source of β-glucan is selected from oat, barley, rye or wheat.

~~11.~~10. Foodstuff containing the dietary fibre composition according to any one of claims 1-~~10~~9, ~~and comprising at least one cereal grain component containing β-glucan, characterized in that β-glucan is selected to have a peak molecular weight in the range of 40 kDa to 3000 kDa, preferably in the range of 700 kDa to 2000 kDa, a solubility at 37°C of at least 20%, preferably of at least 50% and more preferably of at least 75% of extracted β-glucan to the total β-glucan content in an extract of the fibre composition prepared according to the method disclosed herein, and with a viscosity of the extract at 37°C of at least 30 mPa·s , preferably at least 100 mPa·s and more preferably of at least 500 mPa·s when measured at 30 s^{-1}~~.

~~12.~~11. Foodstuff according to claim ~~11~~10, characterized in that the foodstuff is chosen from beverages, bakery products, cereal, extruded snacks and bars.

~~13.~~12. Nutritional supplement containing the dietary fibre composition according to any one of claims 1-~~10~~9, ~~and comprising at least one~~

~~cereal grain component containing β-glucan, characterized in that β-glucan is selected to have a peak molecular weight in the range of 40 kDa to 3000 kDa, preferably in the range of 700 kDa to 2000 kDa, a solubility at 37°C of at least 20%, preferably of at least 50% and more preferably of at least 75% of extracted β-glucan to the total β-glucan content in an extract of the fibre composition prepared according to the method disclosed herein, and with a viscosity of the extract at 37°C of at least 30 mPa·s , preferably at least 100 mPa·s and more preferably of at least 500 mPa·s when measured at 30 s^{-1}.~~

~~14.~~13. Use of a dietary fibre composition according to any one of claims 1-~~10~~ 9~~and comprising at least one cereal grain component containing β-glucan~~ for manufacturing foodstuffs for treatment and/or prophylaxis of hypercholesterolemia, regulating glycemic response and appetite control in a mammal.

~~15.~~14. Use of dietary fibre composition according to claim ~~14~~13, wherein the mammal is a human being.

~~16.~~15. Use of dietary fibre composition according to any one of claims 1-~~10~~ 9 ~~and comprising at least one cereal grain component containing β-glucan~~ for manufacturing nutritional supplement for treatment and/or prophylaxis of hypercholesterolemia, regulating glycemic response and appetite control in a mammal.

~~17.~~16. Use of dietary fibre composition according to claim 15, wherein the mammal is a human being.

~~18.~~17. Medicament containing the dietary fibre composition according to any one of claims 1-~~10~~ 9~~and comprising at least one cereal grain component containing β-glucan~~.

~~19.~~18. Medicament according to claim ~~18~~ 17 for treatment and/or prophylaxis of hypercholesterolemia, regulating glycemic response and appetite control in a mammal.

~~20.~~19. Medicament according to claim ~~19~~18, wherein the mammal is a human being.