Claims

1. A process for preparing a whole grain cereal based extract; said process comprises the steps of:

(i) providing a whole grain cereal;

(ii) subjecting the whole grain cereal to a first grinding;

(iii) subjecting the ground whole grain cereal to a hydrolysis of macromolecular elements thereby providing a modified whole grain cereal;

(iv) separating a soluble fraction of the modified whole grain cereal from an insoluble fraction of the modified whole grain cereal;

(v) subjecting the insoluble fraction of the modified whole grain cereal to a second grinding, and to a chemical and/or enzymatic modification thereby obtaining a cereal based fraction, wherein the cereal based fraction comprises particles having a particle size of at the most 100 µm~~, such as at the most 50 µm, e.g. at the most 30 µm~~; and

(vi) reincorporating at least part of the cereal based fraction obtained from step (v) into at least part of the soluble fraction obtained from step (iv) thereby obtaining the whole grain cereal based extract.

2. The process according to claim 1, wherein the whole grain cereal is a malted whole grain cereal.

3. The process according to any one of the proceeding claims, wherein the soluble fraction obtained from the separation in step (iv) is concentrated.

4. The process according to claim 3, wherein the concentrate comprises at least of 10 % and up to 97.5 % (w/w) of the soluble fraction before concentration.

5. The process according to any one of the proceeding claims, wherein the insoluble fraction of the modified whole grain cereal obtained from the separation step (iv) is subjected to a second enzymatic treatment, a chemical treatment, a fermentation or a combination thereof before, during or after the second grinding in step (v).

~~6. A beverage ingredient comprising a cereal based fraction issued from the modification of the insoluble part of a grinded and hydrolysed whole grain cereal, said cereal based fraction comprising particles having a particle size of at the most 100 µm, such as at the most 50 µm, e.g. at the most 30 µm and residual starch level of at the most 20% (w/w) starch, such as at the most 5% (w/w) starch, e.g. at the most 3% (w/w) starch, such as at the most 2% (w/w) starch, e.g. at the most 1% (w/w) starch.~~

~~7. The beverage ingredient according to claim 6, wherein the ingredient comprises, on a dry matter basis, 25-45 % (w/w) of a cereal based fraction, preferably 34-38% (w/w), e.g. about 36% (w/w); 15-25% (w/w) of a skimmed milk powder, preferably 18-22% (w/w), such as about 20% (w/w); 10-20% (w/w) carbohydrate, preferably 14-18% (w/w), such as about 16% (w/w); 10-20% (w/w) cocoa, preferably 12-15% (w/w), e.g. about 13% (w/w) and 5-15% (w/w) of a fat component, preferably 8-12% (w/w), such as about 10% (w/w).~~

~~8. The beverage ingredient according to any one of claims 6-7, wherein the ingredient comprises, on a dry matter basis, 10-50% (w/w) of a cereal based fraction, preferably about 30% (w/w); 15-45% (w/w) of a skimmed milk powder, preferably about 20% (w/w); 8-30% (w/w) sucrose, preferably about 15 % (w/w); 5-30% (w/w) pure and soluble coffee, preferably about 9 % (w/w) and 5-30% (w/w) creamer, preferably about 22 % (w/w).~~

~~9. The beverage ingredient according to any one of claims 6-8, wherein the whole grain mixture comprises 25-75% (w/w) dietary fibres; 10-35% (w/w) protein and 10-35% (w/w) carbohydrate.~~

~~10. A process for preparing a beverage having improved organoleptic and/or improved nutritional value, said process comprises the steps of:~~

~~(a) providing a beverage ingredient according to claims 6-9,~~

~~(b) mixing the beverage ingredient of step (a) with a liquid component, and obtaining the beverage.~~

~~11. The method according to claim 10, wherein the liquid component is selected from the group consisting of water, milk, fruit juice, vegetable juice or any combination thereof.~~

~~12. A beverage consisting of:~~

~~(1) a liquid component; and~~

~~(2) a beverage ingredient according to claims 6-9.~~

~~13. The beverage according to claim 12, comprising on a dry matter basis between 10-50% protein by weight of the beverage; 5-30% fat by weight of the beverage, 10-75 % carbohydrate by weight of the beverage and 5-30% cereal base fraction by weight of the beverage.~~

~~14. The beverage according to any one of claims 12-13, wherein between 10-50% of the total energy comes from protein; between 5-30% of the total energy comes from fat, 10-75% of the total energy comes from carbohydrate and wherein the beverage comprises 5-30% cereal base fraction.~~

~~15. The beverage according to any one of claims 12-14, wherein at least 10% of the total energy of the beverage is provided by protein, less than 30 % of the total energy of the beverage is provide by fat, at least 10% the total energy of the beverage is provided by carbohydrates, and wherein the beverage comprises at least 5% of cereal base fraction.~~