Claims

1. A beverage, comprising:

fermented soy whey;

sugar; and

a plurality of organic compounds,

characterised in that the beverage is derived from soy whey fermented using at least one yeast, 70–100% v/v of soy whey, and 0–30% v/v of sugar, wherein the yeast imparts the plurality of organic compounds having≥10 mg/L free soy isoflavones and an ester content of 5–10 mg/L.

2. The beverage according to claim 1, wherein the beverage is derived from soy whey fermented with the yeast, comprising Saccharomyces yeast, non-Saccharomyces yeast, or a combination thereof.

3. The beverage according to claim 1, wherein the beverage is derived from soy whey fermented with the yeast Saccharomyces cerevisiae, Saccharomyces bayanus, Torulaspora delbrueckii, Kluyveromyces thermotolerans, Metschnikowia pulcherrima, Pichia kluyveri, or Williopsis saturnus, or a combination thereof, wherein Saccharomyces cerevisiae, Saccharomyces bayanus, Torulaspora delbrueckii, or Kluyveromyces thermotolerans imparts an alcohol content to the beverage, whereas Metschnikowia pulcherrima, Pichia kluyveri, or Williopsis saturnus imparts a non-alcohol content to the beverage.

4. The beverage according to claim 1, wherein the yeast imparts characteristic flavour and aroma profile to the beverage by producing varying concentrations of organic compounds comprising alcohols, aldehydes, glycerol, and organic acids, 2-pentylfuran, and gamma aminobutyric acid (GABA).

5. The beverage according to claim 1, wherein the sugar content of the beverage is adjusted to 3–30 °Bx prior to adding the yeast to achieve an alcohol content of about 0.5–40% by volume.

6. The beverage according to claim 1, wherein the beverage has a total soy isoflavone content of ≥ 20 mg/L.

7. The beverage according to claim 1, wherein the beverage has a pH of 2–6.

8. The beverage according to claim 1, wherein the beverage has a sugar concentration of 3-20 °Bx.

9. The beverage according to claim 1, wherein the beverage is an alcoholic beverage.

10. A method of producing a beverage, comprising steps of:

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adjusting pH of soy whey using at least one edible acid as a promoter of growth for at least one yeast;

adding at least one sugar as an energy source for the yeast;

~~pasteurising soy whey for removal of contaminants;~~

~~adding the yeast to soy whey for initiating fermentation; and~~

~~fermenting soy whey with the yeast at a pre-determined duration of time and temperature for obtaining the beverage,~~

~~characterised in that the beverage is derived from soy whey fermented using at least one yeast, 70–100% v/v of soy whey, and 0–30% v/v of sugar, wherein the 5 yeast imparts the plurality of organic compounds having ≥10 mg/L free soy isoflavones and an ester content of 5–10 mg/L.~~

~~11. The method according to claim 11, wherein the edible acid is malic acid, citric acid, lactic acid, tartaric acid, gluconic acid, succinic acid, or a combination thereof.~~

~~12. The method according to claim 11, wherein the beverage is derived from soy whey fermented with the yeast, comprising Saccharomyces yeast, non-Saccharomyces yeast, or a combination thereof.~~

~~13. The method according to claim 11, wherein the beverage is derived from soy whey fermented with the yeast Saccharomyces cerevisiae, Saccharomyces bayanus, Torulaspora delbrueckii, Kluyveromyces thermotolerans, Metschnikowia pulcherrima, Pichia kluyveri, or Williopsis saturnus, or a combination thereof, wherein Saccharomyces cerevisiae, Saccharomyces bayanus, Torulaspora delbrueckii, or Kluyveromyces thermotolerans imparts an alcohol content to the beverage, whereas Metschnikowia pulcherrima, Pichia kluyveri, or Williopsis saturnus imparts a non-alcohol content to the beverage.~~

~~14. The method according to claim 11, wherein the pre-determined period of time for fermentation is 2–21 days.~~

~~15. The method according to claim 11, wherein the pre-determined temperature for fermentation is 13–35°C.~~

~~16. The method according to claim 11, wherein pH of the soy whey is adjusted prior to addition of the yeast to said soy whey.~~

~~17. he method according to claim 17, wherein the pH of the soy whey is adjusted to between pH 3 and 5.~~

~~18. The method according to claim 11, wherein sugar is added to the soy whey for increasing carbohydrate content prior to addition of yeast to said soy whey.~~

~~19. The method according to claim 11, wherein the soy whey is heated prior to addition of yeast to said soy whey.~~

1. A soy whey-fermented beverage, comprising:

a fermented liquid waste of soybean curd manufacturing having a soy whey with at least one yeast,

characterised in that the yeast is Metschnikowia pulcherrima, Pichia kluyveri, Williopsis saturnus, or a combination thereof, and the yeast having an energy source from the 70–100% liquid waste with 0–30% of at least one type of added sugar, such that the beverage is non-alcoholic having a plurality of organic compounds having ≥10 mg/L free soy isoflavones and a 5–10 mg/L ester content to mask odour of the liquid waste.

2. The beverage according to claim 1 or 2, wherein the beverage has an alcohol content of < 0.5% by volume.

3. The beverage according to claim 1, wherein the yeast imparts characteristic flavour and aroma profile to the beverage by producing varying concentrations of organic compounds comprising alcohols, aldehydes, glycerol, and organic acids, 2-pentylfuran, and gamma amino-butyric acid (GABA).

4. The beverage according to claim 1, wherein the beverage has a total soy isoflavone content of ≥ 20 mg/L.

5. The beverage according to claim 1, wherein the beverage has a pH of 2–6.

6. The beverage according to claim 1, wherein the beverage has a sugar concentration of 3–20 °Bx.

7. A method of producing a non-alcoholic beverage, comprising steps of:

obtaining a liquid waste of soybean curd manufacturing having a soy whey;
pasteurising the liquid waste for removal of contaminants;
adding a yeast to the pasteurised liquid waste for initiating fermentation;
adding 0–30% v/v of at least one sugar to 70–100% v/v of the pasteurised liquid waste as an energy source for the yeast; and
fermenting the pasteurised liquid waste with the yeast added at a pre-determined duration of time and temperature for obtaining the beverage,
characterized in that the yeast is *Metschnikowia pulcherrima*, *Pichia kluyveri*, *Williopsis saturnus*, or a combination thereof, wherein the yeast imparts a plurality of organic compounds having ≥10 mg/L free soy isoflavones and a 5–10 mg/L ester content.

8. The method according to claim 7, wherein the edible acid is malic acid, citric acid, lactic acid, tartaric acid, gluconic acid, succinic acid, or a combination thereof.

9. The method according to claim 7, wherein the pre-determined duration of time for fermentation is 2–21 days.

10. The method according to claim 7, wherein the pre-determined temperature for fermentation is 13–35°C.

11. The method according to claim 7, wherein pH of the soy whey is adjusted prior to addition of the yeast to said soy whey.

12. The method according to claim 7, wherein sugar is added to the soy whey for increasing carbohydrate content prior to addition of yeast to said soy whey.

13. The method according to claim 7, wherein the soy whey is heated prior to addition of yeast to said soy whey.