CLAIMS

What is claimed is:

1. A luo han guo extract, comprising:

mogroside V;

monosaccharides;

disaccharides; and

proteins,

wherein the extract has less than 3% mogroside V on a dry weight basis and less than 20% monosaccharides on a dry weight basis, and

wherein the mogroside V, monosaccharides, disaccharides, and proteins are all naturally occurring in luo han guo.

2. The extract of claim 1, further comprising acids naturally occurring in luo han guo.

3. The extract of claim 2, wherein the extract has a total acid content of less than 5% on a dry weight basis.

4. The extract of any one of claims 1 to 3, further comprising minerals naturally occurring in luo han guo.

5. The extract of any one of claims 1 to 4, further comprising polysaccharides naturally occurring in luo han guo.

6. The extract of any one of claims 1 to 5, further comprising other terpene glycosides naturally occurring in luo han guo.

7. The extract of any one of claims 1 to 6, wherein the extract has a total amount of proteins of at least 10% on a dry weight basis.

8. The extract of any one of claims 1 to 7, wherein the monosaccharides and the disaccharides are present in the extract in a weight ratio of less than 0.5:1.

9. The extract of any one of claims 1 to 8, wherein all components of the extract are naturally occurring in luo han guo.

10. The extract of any one of claims 1 to 9, wherein at least 95% on a dry weight basis of the extract is naturally occurring in luo han guo.

11. The extract of any one of claims 1 to 10, wherein the extract is in powder form.

12. A method of producing a spray-dried extract, comprising:

a) filtering a mogroside-depleted luo han guo juice using a nanofiltration membrane to produce a retentate, wherein the nanofiltration membrane has a molecular weight cut-off between 200 Daltons and 2,500 Daltons;

b) monitoring the soluble solids concentration of the retentate of step (a);

c) diluting the retentate of step (a) with water, when the soluble solids concentration of the retentate of step (a) is 5g/100g, to produce a diluted retentate;

d) filtering the diluted retentate using the nanofiltration membrane to produce another retentate;

e) monitoring the soluble solids concentration of the retentate of step (d);

f) diluting the retentate of step (d) with water to produce another diluted retentate;

g) repeating steps (d)-(f) until a monosaccharide concentration of the retentate of step (d) is less than 20% on a dry weight basis;

h) after step (g), concentrating the retentate to produce a concentrated retentate having a soluble solids concentration of 20g/100g; and

i) spray drying the concentrated retentate to produce the spray-dried extract.

13. The method of claim 12, wherein the retentate of step (g) comprises mogroside V,

wherein the mogroside V is naturally occurring in Luo Han Guo from which the mogroside-depleted luo han guo juice was obtained, and

wherein the retentate has less than 2% mogroside V on a dry weight basis.

14. The method of claim 13, wherein the retentate has less than 1% mogroside V on a dry weight basis.

15. The method of any one of claims 13 to 14, wherein the retentate of step (g) further comprises disaccharides and polysaccharides,

wherein the disaccharides and polysaccharides are naturally occurring in luo han guo from which the mogroside-depleted luo han guo juice was obtained, and

wherein the retentate has a total sugar content of less than or equal to 20% on a dry weight basis,

wherein the total sugar content is the sum of the monosaccharide, disaccharide and polysaccharide amounts in the extract, on a dry weight basis.

16. The method of any one of claims 13 to 15, wherein the mogroside-depleted luo han guo juice is obtained by:

heating fresh luo han guo in water to obtain a water-extracted juice, wherein the water-extracted juice comprises mogroside V;

clarifying the water-extracted juice, wherein the clarified juice comprises mogroside V;

and

contacting the clarified juice with an absorbent resin, wherein at least a portion of the mogroside V in the clarified juice binds to the adsorbent resin thereby reducing the concentration of mogroside V in the clarified juice.

17. A method of producing a luo han guo sweetening composition, comprising:

a) heating fresh luo han guo in water to obtain a water-extracted juice, wherein the water-extracted juice comprises mogroside V and other terpene glycosides;

b) clarifying the water-extracted juice, wherein the clarified juice comprises mogroside V and other terpene glycosides;

c) contacting the clarified juice with an absorbent resin, wherein at least a portion of the mogroside V and other terpene glycosides in the clarified juices binds to the adsorbent resin to produce a mogroside-depleted juice;

d) after step c), eluting the mogroside V and other terpene glycosides from the adsorbent resin to obtain a terpene glycoside solution;

e) drying the terpene glycoside solution to produce a terpene glycoside powder;

f) filtering the mogroside-depleted juice using a nanofiltration membrane to produce a retentate, wherein the nanofiltration membrane has a molecular weight cut-off between 200 and 2,500 Daltons;

g) monitoring the soluble solids concentration of the retentate of step (f);

h) diluting the retentate of step (f) with water, when the soluble solids concentration of the retentate of step (f) is 5g/100g, to produce a diluted retentate;

i) filtering the diluted retentate using the nanofiltration membrane to produce another retentate;

j) monitoring the soluble solids concentration of the retentate of step (i);

k) diluting the retentate of step (i) with water to produce another diluted retentate;

l) repeating steps (f)-(k) until a monosaccharide concentration of the retentate of step (i) is 20% on a dry weight basis;

m) after step (l), concentrating the retentate to produce a concentrated retentate having a soluble solids concentration of 20g/100g;

n) spray drying the concentrated retentate to produce the spray-dried extract; and

o) combining the terpene glycoside powder and the spray-dried extract to produce the sweetening composition, wherein the sweetening composition is in solid form.

18. A method of producing a luo han guo sweetening composition, comprising:

a) heating fresh luo han guo in water to obtain a water-extracted juice, wherein the water-extracted juice comprises mogroside V and other terpene glycosides;

b) clarifying the water-extracted juice, wherein the clarified juice comprises mogroside V and other terpene glycosides;

c) contacting the clarified juice with an absorbent resin, wherein at least a portion of the mogroside V and other terpene glycosides in the clarified juices binds to the adsorbent resin to produce a mogroside-depleted juice;

d) after step c), eluting the mogroside V and other terpene glycosides from the adsorbent resin to obtain a terpene glycoside solution;

e) drying the terpene glycoside solution to produce a terpene glycoside powder;

f) filtering the mogroside-depleted juice using a nanofiltration membrane to produce a retentate, wherein the nanofiltration membrane has a molecular weight cut-off between 200 and 2,500 Daltons;

g) monitoring the soluble solids concentration of the retentate of step (f);

h) diluting the retentate of step (f) with water, when the soluble solids concentration of the retentate of step (f) is 5g/100g, to produce a diluted retentate;

i) filtering the diluted retentate using the nanofiltration membrane to produce another retentate;

j) monitoring the soluble solids concentration of the retentate of step (i);

k) diluting the retentate of step (i) with water to produce another diluted retentate;

l) repeating steps (f)-(k) until a monosaccharide concentration of the retentate of step (i) is 20% on a dry weight basis;

m) after step (l), concentrating the retentate to produce a concentrated retentate having a soluble solids concentration of 20g/100g;

n) combining the concentrated retentate of step (m) with the terpene glycoside powder of step (e); and

o) spray drying the combined concentrated retentate and terpene glycoside powder to produce the luo han guo sweetening composition.

19. The method of claim 17 or 18, further comprising compressing the sweetening composition to form a tablet.