Claims

1. A sweetener composition comprising (i) brazzein or an analog thereof and (ii) ~~at least one additional sweetener selected from a steviol glycoside sweetener and a mogroside sweetener~~Rebaudioside M ("Reb M"); wherein the analog of brazzein has not more than 10 amino acids replaced, deleted or inserted compared to wild type brazzein.

~~2. The sweetener composition of claim 1 wherein the steviol glycoside sweetener is selected from Rebaudioside M ("Reb M"), RebM80, Rebaudioside D ("Reb D"), A95 and Rebaudioside A ("Reb A").~~

~~3. The sweetener composition of claim 1, wherein the mogroside sweetener is selected from siamenoside I and mogroside V.~~

~~4. A sweetener composition comprising brazzein and high fructose corn syrup (HFCS).~~

~~5~~2. A beverage or beverage product comprising the sweetener composition of ~~any one of~~ claim~~s~~ 1~~–4~~; wherein the beverage comprises a liquid matrix and the sweetener composition of claim 1; and wherein the beverage product beverage product is a beverage concentrate, a beverage syrup, or a powdered beverage from which full strength beverages can be prepared by adding water.

~~6~~3. The beverage or beverage product of claim~~s~~ ~~5~~2, wherein the brazzein is present in an amount between ~~about~~ 10 ppm and ~~about~~ 50 ppm.

~~7~~4. The beverage or beverage product of claim ~~5~~2, wherein the brazzein is present in an amount between ~~about~~ 10 ppm and ~~about~~ 40 ppm.

~~8~~5. The beverage or beverage product of claim ~~5~~2, wherein the brazzein is present in an amount selected from an amount between ~~about~~ 10 ppm and ~~about~~ 30 ppm~~, about 1 ppm and about 25 ppm, about 1 ppm and about 20 ppm or about 1 ppm and about 15 ppm~~.

~~9~~6. The beverage or beverage product of claim ~~6–8~~3, wherein the beverage or beverage product has at least one improved organoleptic property compared to a beverage or beverage product that does not contain the sweetener composition ~~or flavor modifying composition~~,

wherein the organoleptic property is selected from the group consisting of temporal profile, flavor profile, taste, bitter aftertaste, sweetness linger, mouthfeel or a combination thereof.

~~10~~7. The beverage or beverage product of claim ~~9~~6, wherein the at least one improved organoleptic property is a reduction in bitter aftertaste or an improvement in mouthfeel.

~~11~~8. The beverage or beverage product of claim ~~9~~6, wherein the at least one improved organoleptic property is an improvement in mouthfeel and the amount of brazzein is between ~~about~~ 10 ppm and ~~about~~ 40 ppm.

~~12~~9. The beverage or beverage product of ~~any one of~~ claim~~s~~ ~~6-8~~3, wherein the beverage or beverage product is selected from a low-calorie or no-calorie beverage or beverage product.

~~13~~10. The beverage or beverage product of ~~any one of~~ claim~~s~~ ~~6-8~~3, wherein the beverage is selected from the group consisting of cola, ginger-ale, soft drinks, root beer, fruit juice, fruit-flavored juice, vegetable juice, vegetable-flavored juice, sports drinks, energy drinks, plant protein beverage, near water drinks ~~(e.g., water with natural or synthetic flavorants)~~, tea type ~~(e.g. black tea, green tea, red tea, oolong tea)~~, coffee, cocoa drink, beverage containing milk components ~~(e.g. milk beverages, coffee containing milk components, café au lait, milk tea, fruit milk beverages)~~.

~~14~~11. A method of improving at least one organoleptic property of a beverage or beverage product, comprising adding a sweetener composition of claim 1 to a liquid matrix thereby providing a beverage or beverage product having at least one improved organoleptic property.

~~15. The method of claim 14, wherein the steviol glycoside sweetener is selected from Rebaudioside M ("Reb M"), RebM80, Rebaudioside D ("Reb D"), A95 and Rebaudioside A ("Reb A").~~

~~16~~12. The method of claim ~~14 or 15~~11, wherein the improved organoleptic property is selected from the group consisting of temporal profile, flavor profile, taste, bitter aftertaste, sweetness linger, mouthfeel or a combination thereof.

~~17~~13. The method of claim ~~16~~12, wherein the improved organoleptic property is a reduction in bitter aftertaste or an improvement in mouthfeel.

~~18~~14. The method of claim ~~16~~12, wherein the improved organoleptic property is an improvement in mouthfeel and the amount of brazzein present in the beverage or beverage product is an amount between ~~about~~ 10 ppm and ~~about~~ 40 ppm.

~~19~~15. The method of claim ~~14 or 15~~11, wherein brazzein is present in the beverage or beverage product in an amount between ~~about~~ 10 ppm and ~~about~~ 50 ppm.

~~20~~16. The method of claim ~~14 or 15~~11, wherein the brazzein is present in the beverage or beverage product in an amount selected from an amount between ~~about~~ 10 ppm and ~~about~~ 40 ppm~~, about 1 ppm and about 30 ppm, about 1 ppm and about 25 ppm, about 1 ppm and about 20 ppm or about 1 ppm and about 15 ppm~~.

~~21~~17. The sweetener composition of claim 1, wherein the brazzein analog differs from the wild-type brazzein by at least one amino acid.

~~22~~18. The sweetener composition of claim ~~21~~17, wherein the brazzein analog has one of the at least one of the following: Asp40Lys, Glu41Ala, Lys42Ala, Asp50Lys, Tyr54Trp, Asp29Ala, Asp29Asn/Glu41Lys and Asp29Lys/Glu41Lys.

~~23~~19. The sweetener composition of claim 1, wherein the brazzein has the amino acid sequence of SEQ ID NO: 1.

~~24~~20. The sweetener composition of claim 1, wherein the brazzein is pGlu-brazzein or des-pGlu1-brazzein.

~~25. The sweetener composition of claim 1, wherein the mogroside sweetener is Mogroside V.~~

~~26~~21. The sweetener composition of claim ~~2~~1, wherein the Reb M has a purity of greater than ~~about~~ 95%.

~~27~~22. The beverage or beverage product of claim ~~5~~2, further comprising at least one organic acid additive salt that is a sodium, calcium, potassium, or magnesium salt of an organic acid.

~~28~~23. The beverage or beverage product of claim ~~27~~22, wherein the organic acid is selected from the group consisting of citric acid, malic acid, tartaric acid, fumaric acid, lactic acid, alginic acid, ascorbic acid, benzoic acid and adipic acid.

~~29. The method of claim 14, wherein the mogroside sweetener is selected from siamenoside I and mogroside V.~~

~~30~~24. The method of claim ~~14~~11, wherein the brazzein analog that differs from the wild-type brazzein by at least one amino acid.

~~31~~25. The method of claim ~~30~~24, wherein the brazzein analog has one of the at least one of the following: Asp40Lys, Glu41Ala, Lys42Ala, Asp50Lys, Tyr54Trp, Asp29Ala, Asp29Asn/Glu41Lys and Asp29Lys/Glu41Lys.

~~32~~26. The method of claim ~~14~~11, wherein the brazzein has the amino acid sequence of SEQ ID NO: 1.

~~33~~27. The method of claim ~~14~~11, wherein the brazzein is pGlu-brazzein or des-pGlu1-brazzein.