**Claims**

[Claim 1]. A formulation for modulating a glycemic response comprising:

a. at least two different phenylpropanoids encapsulated in a first cyclodextrin;

b. an iminosugar;

c. a monosaccharide-based enzyme inhibitor and

e. a second cyclodextrin,

wherein the first and second cyclodextrin are different.

[Claim 2]. The formulation according to claim 1 , wherein the first and second cyclodextrin are selected from the group consisting of alpha cyclodextrin**,** beta cyclodextrin and gamma cyclodextrin and/or,

wherein the first cyclodextrin comprises gamma cyclodextrin.

[Claim 3]. The formulation according to claim 1 or 2, wherein the at least two different phenylpropanoids

a) are selected from the group consisting flavonoid, chalcone, and any combination thereof; and/or, wherein the flavonoid comprises: quercetin, myricetin, dihydromyricetin, luteolin, baicalein, apigenin, kaempferol, or any combination thereof; and/or, wherein the at least one chalcone comprises: dihydrochalcone glycoside, phlorizin or phloretin;

b) comprise quercetin, myricetin, dihydrochalcone glycoside-phlorizin and any combination thereof; or

c) comprise dihydromyricetin, and dihydrochalcone glycoside-phlorizin.

[Claim 4]. The formulation according to claim 1 or 2, wherein the first cyclodextrin is gamma cyclodextrin; the at least two different phenylpropanoids are quercetin, myricetin, phlorizin; the iminosugar comprises 1-deoxynojirimycin; the monosaccharide-based enzyme inhibitor is arabinose; and the second cyclodextrin is alpha cyclodextrin optionally, wherein the ratio of gamma cyclodextrin : quercetin : myricetin : phlorizin : 1-deoxynojirimycin : arabinose : alpha cyclodextrin is 40:9:9:5:5:10:22 or 35:9:9:4:5:37:1**.**

[Claim 5]. The formulation according to claim 1 or 2, wherein the first cyclodextrin is gamma cyclodextrin; the at least two different phenylpropanoids are dihydromyricetin, phlorizin; the iminosugar comprises 1-deoxynojirimycin; the monosaccharide-based enzyme inhibitor is arabinose; and the second cyclodextrin is alpha cyclodextrin optionally, wherein the ratio of gamma cyclodextrin : dihydromyricetin: phlorizin : 1-deoxynojirimycin : arabinose : alpha cyclodextrin is 5:2:1:3:1:30 to 25:6:6:10:10:90**.**

[Claim 6]. The formulation according to any one of claims 1 to 5, further comprising a flavour or colour varying additive**.**

[Claim 7]. A composition for modulating a glycemic response comprising:

at least one phenylpropanoid encapsulated in a first cyclodextrin; and

a second cyclodextrin different from the first cyclodextrin, and

optionally, wherein the first and second cyclodextrin are selected from the group consisting of alpha cyclodextrin**,** beta cyclodextrin and gamma cyclodextrin; and/or

wherein the first cyclodextrin comprises gamma cyclodextrin.

[Claim 8]. The composition according to claim 7, wherein the at least one phenylpropanoid

a) is selected from the group consisting flavonoid, chalcone, and any combination thereof and/or, wherein the flavonoid comprises: quercetin, myricetin, dihydromyricetin, luteolin, baicalein, apigenin, kaempferol, or any combination thereof and/or, wherein the at least one chalcone comprises: dihydrochalcone glycoside, phlorizin or phloretin.

b) comprises quercetin, myricetin, dihydromyricetin, dihydrochalcone glycoside, and any combination thereof; or

c) comprises quercetin, myricetin and phlorizin.

[Claim 9]. The composition according to claim 7 or 8, further comprising iminosugar; and/or a monosaccharide-based enzyme inhibitor.

[Claim 10]. A foodstuff additive including the formulation according to any one of claims 1 to 6 or the composition according to any one of claims 7 to 9.

[Claim 11]. The formulation according to any one of claims 1 to 6 or the composition according to any one of claims 7 to 9, or the foodstuff additive of claim 10, for use in the treatment or prevention of diabetes or obesity.

[Claim 12]. A process for manufacturing a formulation for modulating a glycemic response comprising**:**

a. mixing at least two different phenylpropanoids and a first cyclodextrin;

b. adding water to the mix of at least two different phenylpropanoids and the first cyclodextrin to form a paste;

c. kneading the paste with shear force;

d. drying the paste;

e. grinding the dried paste to a powder; and

f. adding an iminosugar, a monosaccharide-based enzyme inhibitor and a second cyclodextrin to the powder to constitute the formulation,

wherein the powder comprises the phenylpropanoids encapsulated in the first cyclodextrin, and wherein the first and second cyclodextrin are different optionally, wherein the first and second cyclodextrin are selected from the group consisting of alpha cyclodextrin**,** beta cyclodextrin and gamma cyclodextrin and/or, wherein the first cyclodextrin comprises gamma cyclodextrin

[Claim 13]. The process according to claim 12, wherein the at least two different phenylpropanoids

a) comprises a flavonoid, a chalcone, or any combination thereof;

b) are selected from the group consisting of one or more flavonoid, at least chalcone, and any combination thereof optionally, wherein the flavonoid comprises: quercetin, myricetin, dihydromyricetin, luteolin, baicalein, apigenin, kaempferol, or any combination thereof and/or, wherein the at least one chalcone comprises: dihydrochalcone glycoside, phlorizin or phloretin;or

c) comprise dihydromyricetin, and dihydrochalcone glycoside-phlorizin**.**

[Claim 14]. The process according to claim 12 or 13, wherein the first cyclodextrin is gamma cyclodextrin; the at least twodifferent phenylpropanoids are quercetin, myricetin, and phlorizin; the iminosugar comprises 1-deoxynojirimycin; the monosaccharide-based enzyme inhibitor is arabinose; and the second cyclodextrin is alpha cyclodextrin optionally, wherein the gamma cyclodextrin:quercetin:myricetin:phlorizin:1-deoxynojirimycin:arabinose: alpha cyclodextrin is manufactured in a ratio of 40:9:9:5:5:10:22 or a ratio of 35:9:9:4:5:37:1.

[Claim 15]. The process according to claim 12 or 13, wherein the first cyclodextrin is gamma cyclodextrin; the at least two different phenylpropanoids are dihydromyricetin, phlorizin; the iminosugar is 1-deoxynojirimycin; the monosaccharide-based enzyme inhibitor is arabinose; and the second cyclodextrin is alpha cyclodextrin optionally, wherein the ratio of gamma cyclodextrin : dihydromyricetin: phlorizin : 1-deoxynojirimycin : arabinose : alpha cyclodextrin is 5:2:1:3:1:30 to 25:6:6:10:10:90**.**

[Claim 16]. The process according to any one of claims 12 to 15, further comprising adding a flavour or colour varying additive**.**

[Claim 17]. A method for forming a composition for modulating a glycemic response comprising**:**

a. mixing at least one phenylpropanoid and a first cyclodextrin;

b. adding water to the mix of at least one phenylpropanoid and the first cyclodextrin to form a paste;

c. kneading the paste with shear force;

d. drying the paste;

e. grinding the dried paste to a powder; and

f. adding a second cyclodextrin to the powder to form the composition,

wherein the powder comprises the at least one phenylpropanoid encapsulated in the first cyclodextrin, and wherein the first and second cyclodextrin are different optionally, wherein the first and second cyclodextrin are selected from the group consisting of alpha cyclodextrin**,** beta cyclodextrin and gamma cyclodextrin and/or, wherein the first cyclodextrin comprises gamma cyclodextrin

[Claim 18]. The method according to claim 17, wherein the at least one phenylpropanoid

a) comprises a flavonoid, a chalcone, or any combination thereof;

b) is selected from the group consisting of at least flavonoid, at least chalcone, and any combination thereof optionally, wherein the at least one flavonoid comprises: quercetin, myricetin, dihydromyricetin, luteolin, baicalein, apigenin, kaempferol, or any combination thereof and/or, wherein the at least one chalcone comprises: dihydrochalcone glycoside, phlorizin or phloretin;

c) is selected from quercetin, myricetin, dihydrochalcone glycoside, and any combination thereof.

[Claim 19]. The method according to claim 17 or 18, further comprises adding iminosugar and/or a monosaccharide-based enzyme inhibitor and/or at least one free phenylpropanoid not encapsulated in any cyclodextrin to the composition.