

COMMENTS TO BELGIAN GUIDELINES ON VOLUNTARY LABELLING FOR STEVIOL GLYCOSIDES

The guidelines as drafted now only allow for the use of the mandatory terminology. We propose the Belgian authorities take into account the rationale behind the document ISC previously shared with the industry proposals for voluntary labelling, as discussed in the meeting between Fevia and the Belgian authorities:

- These guidelines are for voluntary labelling, which is only in addition to the mandatory labelling already present on the pack. Since the information on the production method is already available on the pack, in the ingredient list, we do not believe that not mentioning this FOP will result in consumer misleading;
- The main aim of voluntary labelling is to provide clear and concise information to the consumers, aim which would not be achieved by duplicating the requirements of the mandatory labelling terminology;
- When blends of steviol glycosides are used in one product (more than one type of steviol glycosides in one product), having to specify all production methods would result in a not only very long mention, but a complicated one that consumers will not understand easily – which would defeat the purpose of voluntary labelling terminologies.
- We believe that information which is factually correct, such as ‘plant-based origin’ should be allowed, provided that this can be proven.

Furthermore, please find below a short explanation on how steviol glycosides are produced through the three new technologies:

- Enzymatic conversion (E960c)
 - This production technology uses steviol glycosides extracted from the leaves of Stevia as substrate
 - Enzymes add glucose units on specific points of steviol glycosides in the substrate to obtain steviol glycosides with a better sensory profile (less bitterness, etc.)
 - The mixture is purified so as to not contain enzyme residues. If the enzyme comes from a genetically modified source, this means there is no trace of any genetically modified material in the final product.
 - This technology produces steviol glycosides that naturally occur in the Stevia leaves, but it allows for the final product to contain a higher concentration of some of those steviol glycosides specifically.

- Glycosylation (E960d)
 - This production technology uses steviol glycosides extracted from the leaves of Stevia as substrate
 - Enzymes add glucose units to the extracted steviol glycosides, extending their sugar chains
 - The mixture is purified so as to not contain enzyme residues. If the enzyme comes from a genetically modified source, this means there is no trace of any genetically modified material in the final product.
 - This technology may produce steviol glycosides that naturally occur in the Stevia leaves but it may also produce steviol glycosides that are not naturally occurring.

- Fermentation (E960b)
 - Microorganisms biosynthesize steviol glycosides from simple sugars such as glucose.
 - The final product is purified so there is no trace of microbial biomass and of any genetically modified material if the microorganisms were GMMs.
 - The steviol glycosides obtained in the final product are nature-identical to those found in Stevia leaves, without using Stevia extract as starting material.

The new technologies allow for better tasting products to be more readily available and mainstreamed for consumers, as they allow to produce steviol glycosides in a more sustainable and affordable way.

In addition to these general comments, in the table below illustrating the proposed guidelines, our specific comments and proposals, in purple.

Mentions	E960a: <i>steviol glycosides from Stevia</i> <i>(conclusions taken from the previous version of the Guidelines)</i>	E960c: <i>enzymatically produced steviol glycosides</i>	E960d: <i>glucosilated steviol glycosides</i>	E960b: <i>Steviol glycosides from fermentation</i>
<ul style="list-style-type: none"> • With steviol glycosides • With steviol glycoside sweetener • Sweetened with steviol glycosides <p style="text-align: center;">with or without the words "derived from stevia"</p>	<p style="color: green;">Allowed</p>	<p style="color: red;">Not allowed</p> <p>Since the first approval of the sweetener steviol glycosides from stevia, the consumer has been made aware via advertising or the press that steviol glycosides are molecules found naturally in the stevia plant.</p> <p>Highlighting the presence of steviol glycosides without specifying in any way that these glycosides have been modified by enzyme treatment can give the false impression that they are steviol glycosides directly derived from stevia.</p>	<p style="color: red;">Not Allowed</p> <p>Since the first approval of the sweetener steviol glycosides from stevia, the consumer has been made aware via advertising or the press that steviol glycosides are molecules found naturally in the stevia plant.</p> <p>Highlighting the presence of steviol glycosides without specifying in any way that these glycosides have been modified by enzyme treatment can give the false impression that they are steviol glycosides directly derived from stevia.</p>	<p style="color: red;">Not Allowed</p> <p>Since the first approval of the sweetener steviol glycosides from stevia, the consumer has been made aware via advertising or the press that steviol glycosides are molecules found naturally in the stevia plant.</p> <p>Highlighting the presence of steviol glycosides without specifying in one way or another that these glycosides are produced by fermentation by genetically modified microorganisms may give him the false impression that they are steviol glycosides from stevia.</p>
<p>We believe these mentions should be allowed for all the technologies as this information is factually correct. Furthermore, the production methods are in any case specified in the ingredient list on the pack.</p>				
<ul style="list-style-type: none"> • With steviol glycosides <p style="margin-left: 20px;"><u>+ always accompanied by the production process</u></p> <p style="margin-left: 20px;">+ with or without the clarification that the</p>	<p>Not applicable</p>	<p style="color: green;">Allowed</p> <p>By referring to the treatment that steviol glycosides have undergone, the consumer is not given the false impression that</p>	<p style="color: green;">Allowed</p> <p>By referring to the treatment that steviol glycosides have undergone, the consumer is not given the false impression that</p>	<p style="color: green;">Allowed</p> <p>By referring to the production process, the consumer is not given the false impression that these are steviol glycosides from stevia.</p>

<p>process is applied to steviol glycosides/leaf extracts of the stevia plant</p>		<p>these are steviol glycosides directly derived from stevia.</p> <p>Examples of treatment descriptions:</p> <ul style="list-style-type: none"> - <i>With enzymatically produced steviol glycosides</i> - <i>With steviol glycosides obtained by enzymatic conversion of steviol glycosides from the stevia plant</i> - <i>With steviol glycosides produced by enzymatic conversion of stevia leaf extracts</i> 	<p>these are steviol glycosides directly derived from stevia.</p> <p>Examples of treatment descriptions:</p> <ul style="list-style-type: none"> - <i>with glucosylated steviol glycosides</i> - <i>with steviol glycosides obtained by glucosylation of stevia leaf extracts.</i> 	<p>Examples of treatment descriptions:</p> <ul style="list-style-type: none"> - <i>with steviol glycosides produced via fermentation by genetically modified organisms</i> <p>WARNING: in the case of steviol glycosides produced by fermentation, it is obviously not allowed to give the impression that they come from the stevia plant</p>
	/	/	/	<p>We would like to raise the point mentioned above that there is no trace of the genetically modified enzymes/GMMs used in the process in the final products and that this requirement would go beyond current GM labelling provisions.</p>
<ul style="list-style-type: none"> • With sweeteners from stevia • With stevia extracts – steviol glycosides 	<p>Allowed</p> <p>In order to ensure that the consumer receives complete and non-truncated information, the reference to stevia extracts or to the origin of the sweetener (stevia) is permitted provided that it is specified in or near the</p>	<p>Not Allowed</p> <p>This gives the consumer the false impression that these are steviol glycosides directly derived from stevia, when they have undergone a modification.</p>	<p>Not Allowed</p> <p>This gives the consumer the false impression that these are steviol glycosides directly derived from Stevia, when they have undergone a modification.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>

	mention that it is a sweetener or steviol glycosides.			
	/	/	/	We would like to raise the point mentioned above that there is no trace of the genetically modified enzymes/GMMs used in the process in the final products and that this requirement would go beyond current GM labelling provisions.
<ul style="list-style-type: none"> • With stevia • Stevia 	<p>Not Allowed</p> <p>Steviol glycosides, extracted from the stevia plant and purified, can be added to foodstuffs as sweeteners, but not the stevia plant itself.</p>	<p>Not Allowed</p> <p>These are steviol glycosides, extracted from the stevia plant and modified, but not the stevia plant itself.</p>	<p>Not Allowed</p> <p>These are steviol glycosides, extracted from the stevia plant and modified, but not the stevia plant itself.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms.</p>
	/	/	/	We would like to raise the point mentioned above that there is no trace of the genetically modified enzymes/GMMs used in the process in the final products and that this requirement would go beyond current GM labelling provisions.
<ul style="list-style-type: none"> • With stevia extracts 	<p>Not Allowed</p> <p>Mentioning the presence of stevia extracts without specifying that they are sweeteners or steviol glycosides gives truncated or distorted information to the consumer.</p>	<p>Not Allowed</p> <p>Even specifying that these are sweeteners, this is not correct because changes have been made.</p>	<p>Not Allowed</p> <p>Even specifying that these are sweeteners, this is not correct because changes have been made.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>

	<p>Steviol glycosides are obtained by a process that does not allow them to be assimilated to simple plant extracts such as tea.</p> <p>In the European authorisation of the sweetener, the name "stevia extract" is not authorised as a synonym for steviol glycosides.</p>			
	/	<p>Steviol glycosides produced through bioconversion (enzymatic conversion) are steviol glycosides that naturally occur in Stevia plants. The bioconversion process optimizes the content of the final mixture to have a higher concentration of steviol glycosides with a better sensory profile.</p>	/	<p>We would like to raise the point mentioned above that there is no trace of the genetically modified enzymes/GMMs used in the process in the final products and that this requirement would go beyond current GM labelling provisions.</p>
<ul style="list-style-type: none"> • With natural sweeteners • Sweetened with natural ingredients 	<p>Not Allowed</p> <p>Steviol glycosides are obtained by a complex physicochemical process. Additives are not subdivided into natural and other additives.</p>	<p>Not Allowed</p> <p>Steviol glycosides are obtained by a complex physicochemical process, and they subsequently undergo modifications. Additives are not subdivided into natural and other additives.</p>	<p>Not Allowed</p> <p>Steviol glycosides are obtained by a complex physicochemical process, and they subsequently undergo modifications. Additives are not subdivided into natural and other additives.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>
	/	/	/	<p>We would like to raise the point mentioned above that there is no trace of the genetically modified enzymes/GMMs used in the process in the final products and that this requirement would go beyond current GM labelling provisions.</p>

				Furthermore, steviol glycosides produced through fermentation are nature-identical to those found in Stevia leaves.
<ul style="list-style-type: none"> • With naturally derived sweeteners • With plant-based sweeteners 	<p>Allowed</p> <p>Steviol glycosides occur naturally in stevia leaves.</p>	<p>Not Allowed</p> <p>Steviol glycosides are naturally present in stevia leaves, but they are modified during the production of the sweetener.</p>	<p>Not Allowed</p> <p>Steviol glycosides are naturally present in stevia leaves, but they are modified during the production of the sweetener.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>
	/	<p>The starting material is Stevia leaf extract, a plant-based material. Steviol glycosides produced through bioconversion (enzymatic conversion) are steviol glycosides that naturally occur in Stevia plants. The bioconversion process optimizes the content of the final mixture to have a higher concentration of steviol glycosides with a better sensory profile.</p>	<p>The starting material is Stevia leaf extract, a plant-based material.</p>	<p>The starting material is plant-based material. Steviol glycosides produced through fermentation are nature-identical to those found in Stevia leaves.</p>
<ul style="list-style-type: none"> • Steviol glycosides are naturally present in stevia leaves <p>+ always accompanied by the treatment they have undergone</p>	<p>Allowed</p> <p>Steviol glycosides occur naturally in stevia leaves.</p>	<p>Permitted only if it is also indicated that the sweetener used is made from steviol glycosides that have undergone an enzyme modification. Steviol glycosides are naturally present in stevia leaves, but they are modified during the production of the sweetener.</p>	<p>Not Allowed</p> <p>Steviol glycosides produced by glucosylation do not exist in this form in stevia leaves.</p>	<p>Not Allowed</p> <p>This gives the impression that they come from the stevia plant, whereas they are produced by fermentation by genetically modified microorganisms.</p>

	/	Steviol glycosides produced through bioconversion (enzymatic conversion) are steviol glycosides that naturally occur in Stevia plants. The bioconversion process optimizes the content of the final mixture to have a higher concentration of steviol glycosides with a better sensory profile.	/	Steviol glycosides produced through fermentation are nature-identical to those found in Stevia leaves.
<ul style="list-style-type: none"> • Naturally sweetened • Naturally sweet • Naturally sweet taste <p><i>(where these statements relate to products in which steviol glycosides have been added as sweeteners)</i></p>	<p>Not Allowed</p> <p>Unlike products like honey or fruit juices, products containing steviol glycosides do not naturally taste sweet. Steviol glycosides are not naturally present in the food, but are intentionally added to the food to give the product a sweet taste.</p>	<p>Not Allowed</p> <p>Unlike products like honey or fruit juices, products containing steviol glycosides do not naturally taste sweet. Steviol glycosides are not naturally present in the food, but are intentionally added to the food to give the product a sweet taste.</p>	<p>Not Allowed</p> <p>Unlike products like honey or fruit juices, products containing steviol glycosides do not naturally taste sweet. Steviol glycosides are not naturally present in the food, but are intentionally added to the food to give the product a sweet taste.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>
	/	/	/	/
<ul style="list-style-type: none"> • Naturally sweet taste <p><i>(where these statements refer to the steviol glycosides themselves)</i></p>	<p>Allowed only if these statements refer to steviol glycosides: for example, "Steviol glycosides in stevia leaves have a naturally sweet taste".</p>	<p>Not Allowed</p> <p>The steviol glycosides found in stevia leaves naturally taste sweet, but they have undergone a modification.</p>	<p>Not Allowed</p> <p>The steviol glycosides found in stevia leaves naturally taste sweet, but they have undergone a modification.</p>	<p>Not Allowed</p> <p>These steviol glycosides are produced by fermentation by genetically modified microorganisms and do not come from the stevia plant.</p>
	/	Steviol glycosides produced through bioconversion (enzymatic conversion) are steviol glycosides that naturally occur in Stevia plants. The bioconversion process	/	Steviol glycosides produced through fermentation are nature-identical to those found in Stevia leaves.

	optimizes the content of the final mixture to have a higher concentration of steviol glycosides with a better sensory profile.		
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