Confectionery made from herbal mixtures

The present invention relates to confectionery articles based on herbal mixtures which comprise an extract of a mixture of a plurality of herbs or a mixture of a corresponding number of extracts from at least one herb.

A feature of the inventive confectionery articles is that they additionally comprise an extract of *Stevia rebaudiana* (Latin Eupatorium rebaudianum). This circumstance is associated with fundamental advantages, in particular

- the addition of an extract of *Stevia rebaudiana* has a surprising effect, since, in contrast to an addition of isolated stevioside, the constituent responsible for the sweetening power of *Stevia rebaudiana*, a taste change is produced in the confectionery articles, in which, it is not the taste of stevioside which becomes particularly prominent, but the overall taste changes;
- a desired taste change results, in which case it is not the taste of *Stevia rebaudiana* which comes to the fore, but an overall taste underlining the herbs results;
- a sweetening results with greater sweetening power (the leaves of *Stevia rebaudiana* are about 10-20 times sweeter than sugar, and the isolated sweetener stevioside is about 300 times sweeter than sugar!);
- a natural sweetening results, without supplying calories;
- a natural sweetening results without causing caries; and
- a caries-prophylactic effect occurs.

The plant *Stevia rebaudiana (Bertoni) Hemsl.* belongs to

the family *Compositae*. In German, this plant is called "Süsstoffpflanze" [sweetener plant], and for the drug *Stevia rebaudianae folium*, the German name "Honigkrautblätter" [honey-herb leaves] is also used.

Highly numerous different partially very complex processes have already been described for the extraction and/or purification of stevioside, the constituent of *Stevia rebaudiana* responsible for the sweetening power. The use of such processes, however, is not necessary in the production of the inventive confectionery articles, because *Stevia rebaudiana* is used here as herb.

The particularly advantageous taste change of the inventive confectionery articles which results therefrom is distinguished, astonishingly, by the fact that a slightly astringent herbal-honey taste with fresh cooling finish results, and, depending on the form of the inventive confectionery article (for example, hard sweet, drink, syrup), the time course of the taste development can be different. This is not the case with addition of isolated stevioside: here, as expected, a sweet licorice-like taste results.

In a first aspect, the present invention relates to confectionery articles in non-liquid form based on herbal mixtures comprising an extract of a mixture of a plurality of herbs or a mixture of a corresponding number of extracts of at least one herb, which are characterized in that they additionally comprise an extract of *Stevia rebaudiana*.

In a second aspect, the present invention relates to confectionery articles in the form of syrup based on herbal mixtures comprising an extract of a mixture of a plurality of herbs or a mixture of a corresponding number of extracts of at least one herb, which are characterized in that they additionally comprise an

extract of *Stevia rebaudiana*.

In a further aspect, the present invention relates to confectionery articles based on herbal mixtures comprising an extract of a mixture of the herbs peppermint, sage, yarrow and thyme or a mixture of a corresponding number of extracts of at least one of these herbs, which are characterized in that they additionally comprise an extract of *Stevia rebaudiana*.

The inventive confectionery articles can be produced by

- either mixing the dried herbs, extracting this mixture and, if appropriate, thickening the extract; or mixing a corresponding number of, if appropriate, thickened extracts of at least one of the dried herbs with one another and, if appropriate, thickening the mixture; afterwards mixing the resultant mixture with, if appropriate, thickened extract of the dried herb *Stevia rebaudiana*;
- or mixing the dried herbs and the dried herb of *Stevia rebaudiana* with one another, extracting this mixture and, if appropriate, thickening the extract;

afterwards processing the resultant mixture or the resultant, if appropriate, thickened extract to give confectionery articles of the desired form.

Expediently, all herbs which are to be taken into account in a certain inventive confectionery article are mixed with one another in dried form and with dried herb *Stevia rebaudiana*, whereupon they are then extracted and the extract is, if appropriate, thickened; or, firstly all of these herbs are mixed with one another in dried form, whereupon they are then extracted and the extract is, if appropriate, thickened, and secondly the dried herb *Stevia rebaudiana* is extracted and the extract is, if appropriate, thickened, whereupon both the, if

appropriate, thickened extracts are mixed with one another.

The dried herbs are expediently extracted by means of water, the dried herb *Stevia rebaudiana* is expediently extracted likewise by means of water, and a mixture of the dried herbs with the dried herb *Stevia rebaudiana* is also expediently extracted by means of water. In addition to water, of course, other solvents can be used, for example lower alkanols (that is to say C_1-C_6-alkanols), preferably ethanol, or mixtures of such alkanols with water.

If the extracts are thickened, they are expediently reduced to about 1/30 to about 1/36, in particular to about 1/33, of their volume. The extracts, however, can also be processed to form confectionery articles without preceding thickening, as what are termed tea extracts; in this case, in the production of the inventive confectionery articles, instead of water and thickened extracts, such tea extracts are used.

For the inventive confectionery articles in non-liquid form and in the form of syrup, expediently the following herbs are used as base:

- peppermint (*Mentha piperita L.*);
- sage (*Salvia officinalis L.*);
- yarrow (*Achillea millefolium L.*); and
- thyme (*Thymus vulgaris L.*);

the inventive confectionery articles which are not distinguished by their form (in non-liquid form or in the form of syrup) must be based on a mixture of these four herbs.

In addition to these four herbs, in all inventive confectionery articles, use can also be made of

- lemon balm (*Melissa officinalis L.*)

and/or with advantage also one or more of the following herbs:

- common plantain (*Plantago major L.*);
- marshmallow (*Althaea officinalis L.*);
- lady's mantle (*Alchemilla vulgaris L.*);
- elder (*Sambucus ebulus L.*);
- cowslip (*Primula veris L.*);
- anise (*Pimpinella anisum L.*);
- speedwell (*Veronica officinalis L.*);
- mallow (*Malva sylvestris L.*); and
- horehound (*Marrubium vulgare L.*).

The inventive confectionery articles can be present in various non-liquid forms which are customary per se, for example

- in the form of hard sweets, for example in the from of solid or filled hard sweets, which have been stamped, cast, molded or pressed and during the sucking of which, a honey-like herbal flavor slowly forms;
- in rubber-like consistency or structure, for example in the form of piece-like solid or filled sweets, which have been cast, molded, stamped or pressed, and during the slow chewing of which, a typical herbal flavor rapidly develops;
- in the form of chewing sweets; or
- in the form of chewing gum.

Furthermore, the inventive confectionery articles, as mentioned above, can be present in the form of syrup.

The inventive confectionery articles which are not distinguished by their form (in non-liquid form or in the form of syrup), but are distinguished by the use of the four herbs peppermint, sage, yarrow and thyme, can be present in all of the above discussed forms and, furthermore, can also be prepared in the form of herbal drinks, for example in a form from which instant drinks can be prepared.

Such forms are produced in a manner which is conventional and familiar to all those skilled in the

art.

The examples hereinafter are intended to explain the invention in more detail, but not to restrict its scope in any way.

Example 1

One part by weight of a mixture of the five dried herbs peppermint (30%), lemon balm (25%), sage (20%), yarrow (15%) and thyme (10%) is extracted with water and the extract is thickened to 1/33 of its volume.

Separately, one part by weight of dried herb of *Stevia rebaudiana* is extracted with water, and the extract is thickened to 1/33 of its volume.

The thickened extract of the five herbs and the thickened Stevia extract are mixed in the ratio 1:1.

This mixture can be processed to a hard sweet as described in example 3.

Example 2

One part by weight of a mixture of the five dried herbs peppermint (30%), lemon balm (25%), sage (20%), yarrow (15%) and thyme (10%) is mixed with three parts by weight of dried herb of *Stevia rebaudiana*. The mixture is extracted with water and the extract is thickened to 1/33 of its volume.

This extract can be processed, as described in example 4, to give a rubber-like confectionery article.

Example 3

Production of a herbal hard sweet

Sugar and glucose syrup are dissolved in water, boiled

and subjected to vacuum, whereupon the mixture obtained according to example 1, aromas and acidulant are folded into the boiled sugar mass. Mixing is performed at boiling temperature, the mixture is allowed to cool and the cooled mass is stamped to form hard sweets.

Example 4

Production of a rubber-like herbal confectionery article

Gum arabic and sorbitol syrup are dissolved in water. The mixture is heated to boiling, the extract obtained according to example 2 and also aromas and acidulant are added and mixed. The mixture is poured into suitable molds, whereupon the resultant molded pieces are allowed to cool and dry, powdered and polished.

Patent claims

1. A confectionery article in non-liquid form based on herbal mixtures comprising an extract of a mixture of a plurality of herbs or a mixture of a corresponding number of extracts of at least one herb, characterized in that it additionally comprises an extract of *Stevia rebaudiana*.

2. A confectionery article in the form of syrup based on herbal mixtures comprising an extract of a mixture of a plurality of herbs or a mixture of a corresponding number of extracts of at least one herb, characterized in that it additionally comprises an extract of *Stevia rebaudiana*.

3. A confectionery article based on herbal mixtures comprising an extract of a mixture of the herbs peppermint, sage, yarrow and thyme or a mixture of a corresponding number of extracts of at least one of these herbs, characterized in that it additionally comprises an extract of *Stevia rebaudiana*.

4. The confectionery article as claimed in claim 1 or 2, characterized in that it comprises the herbs peppermint, sage, yarrow and thyme.

5. The confectionery article as claimed in claim 3 or 4, characterized in that the herbs additionally comprise lemon balm.

6. The confectionery article as claimed in one of claims 3-5, characterized in that the herbs additionally comprise at least one of the herbs common plantain, marshmallow, lady's mantle, elder, cowslip, anise, speedwell, mallow and horehound.

7. The confectionery article as claimed in one of claims 1 and 4-6, characterized in that it is present in the form of hard sweets.

8. The confectionery article as claimed in claim 7, characterized in that it is present in the form of solid or filled hard sweets which have been stamped, cast, molded or pressed.

9. The confectionery article as claimed in one of claims 1 and 4-6, characterized in that it is present in rubber-like consistency or structure.

10. The confectionery article as claimed in claim 9, characterized in that it is present in the form of piece-like solid or filled sweets which have been cast, molded, stamped or pressed.

11. The confectionery article as claimed in one of claims 1 and 4-6, characterized in that it is present in the form of chewing sweets.

12. The confectionery article as claimed in one of claims 1 and 4-6, characterized in that it is present in the form of chewing gum.

13. The confectionery article as claimed in one of claims 3, 5 and 6, characterized in that it is present in the form of herbal drinks.

14. The confectionery article as claimed in claim 13, characterized in that it is present in a form from which instant drinks can be prepared.

15. A method for producing confectionery articles as claimed in one of claims 1-14, characterized in that

- either the dried herbs are mixed, this mixture is extracted and the extract, if appropriate, thickened; or a corresponding number of, if

appropriate, thickened extracts of at least one of the dried herbs are mixed with one another and the mixture is, if appropriate, thickened; whereupon the resultant mixture is mixed with, if appropriate, thickened extract of the dried herb *Stevia rebaudiana*;

- or the dried herbs and the dried herb of *Stevia rebaudiana* are mixed with one another, this mixture is extracted and the extract is, if appropriate, thickened;

whereupon the resultant mixture or the resultant, if appropriate, thickened extract is processed to give confectionery articles of the desired form.