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**Title:** A PROCESS FOR THE PREPARATION OF HARD CHEESES WITH ADDED FLAVOURING, AND THE PRODUCT OBTAINED

**Abstract**

The process is one by means of which to manufacture hard mature cheeses of parmesan type with an added flavouring of mushrooms, truffles or a variety of aromatic herbs, in such a way that the taste and aroma are preserved intact without occasioning any deterioration of the cheese itself; the essential steps include washing the whole cheese and drying in purified air, breaking up the cheese and grating the fragments down to a selected particle size, then blending in extracts and/or natural substances to give the desired aroma and finally compacting the flavoured particles to produce pieces of the typical parmesan consistency suitable for vacuum packing.
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*Any designation of “SU” has effect in the Russian Federation. It is not yet known whether any such designation has effect in other States of the former Soviet Union.*
A process for the preparation of hard cheeses with added flavouring, and the product obtained

The present invention relates to a process for preparing cheese of hard consistency with an added flavouring, and to the end-product obtainable by implementation of such a process.

The food industry is often made sensitive to the need for original products capable of attracting the interest of the consumer, whether by reason of their novel appearance or of a new and particularly pleasurable taste; many consumers indeed habitually purchase quality foods featuring guaranteed hygiene and refined or exclusive attributes of flavour.

Thus one has seen the appearance, for example, of processed or soft cheeses with additional flavours, which are rendered different one from another and from similar plain cheeses by introducing aromatic substances such as mushrooms, truffles, walnuts and herbs, added fresh or in the form of an extract.

The blend of additives is simple enough to create, and can be prepared immediately prior to the steps of forming and firming the cheese.
No such process has yet been developed for the hard granular cheese generally referred to as parmesan (typical examples of which are Parmigiano Reggiano and Grana Padano), since the addition of flavouring substances during formation of the cheese would adversely affect the end-product. Hitherto, therefore, noone has contrived to produce a cheese such as mushroom-flavoured parmesan, or truffle-flavoured parmesan, whereas soft cheeses with walnuts, herbs etc. have been available on the market for some time. Accordingly, the object of the present invention is to rectify the situation by setting forth a process such as will enable the production of parmesan type cheeses with flavourings added in the naturally occurring state and/or in the form of extracts. The stated object is fully realized in a process according to the invention, which is characterized in that it comprises the steps of:

- washing the whole cheese;
- drying in treated and filtered air;
- crushing the whole cheese to produce a plurality of fragments and grating or shredding the fragments to obtain particles of granulometric size less than a predetermined value, or flakes of thickness less
than a predetermined value, respectively;
mixing the grated or shredded cheese with added
flavours to obtain a blended intermediate product;
pressing and recompacting the blended intermediate
product;
vacuum packaging the recompacted end-product.
The object is also fully realized in an end-product
of compact structure according to the invention,
which is characterized in that it consists in a
hard granular cheese with added flavouring obtained
by implementation of the above process.
The invention will now be described in detail, by
way of example, with the aid of the accompanying
chart which provides a schematic illustration of
the process.
A process as illustrated in the accompanying chart
is suitable for the preparation of a hard granular
cheese, such as parmesan, flavoured with mushroom,
truffles, or aromatic herbs generally, in such a
way as to ensure that the organoleptic properties
of the product are preserved over time without any
risk of the cheese itself deteriorating.
Such a process comprises the following steps:
washing clean and disinfecting the whole cheese,
conventional industrial washing equipment;
-drying the whole cheese, using air that has been
treated and filtered and might also be warmed;
-breaking up the whole cheese into a plurality of
fragments, and thereafter grating the fragments to
obtain particles of granulometric size less than a
predetermined value;
-blending the grated cheese with flavour additives
consisting in mushroom, truffles or aromatic herbs
etc., utilized in their naturally occurring state
and/or in the form of extracts, for example using a
conventional mixer (not illustrated), in order to
obtain a blended intermediate product;
-pressing and recompacting the blended intermediate
product in air or in a vacuum, preferably effecting
a first compaction at pressure of 5 bar approx and
a second compaction at between 8 and 10 bar;
-wrapping the end-product in vacuum packs.
The washing operation can be effected by directing
jets of water onto the whole cheese at different
pressures (between 4 and 7 bar) and at a suitable
temperature, in such a way that the rind will be
thoroughly cleansed.
Every trace of the water used in washing is then
removed in the drying step, whereupon the cheese is
conveyed by conventional means along a processing line and into a crushing and grating station. In an alternative version of the same process, the crushed fragments might be shredded rather than grated, so as to obtain flakes of thickness less than a predetermined value. The grated particles or shredded flakes of cheese are then mixed with between 2% and 7% mushroom or truffle extract, and with between 5% and 20% fresh mushrooms or truffles. Where fresh truffles are added, the preferred quantity will be between 5% and 10%. The option also exists of blending the cheese with edible substances other than mushrooms or truffles, for example such as aromatic herbs in general, used in the naturally occurring state and/or in the form of extracts. Where edible extracts are used in conjunction with ingredients in the naturally occurring state, the resulting blend with the grated or flaked cheese is more thorough. Typically, the blended intermediate product will be directed into a hopper with a dispenser or metering facility, from which the loose charge is fed into a conventional press for recompaction.
The present invention relates not only to a process as described above, but also to a flavoured cheese obtainable by implementation of such a process. Following recompaction the cheese is vacuum-packed, for example in a wrapper of plastics material such as can be heat-sealed to maintain the vacuum and preserve the organoleptic properties of the product intact.

The process according to the invention thus permits of obtaining an entirely new food product which, at the moment of its ingestion, produces a distinctive taste thanks to the inclusion of the added flavour, namely mushrooms, truffles, herbs etc.

One of the characterizing features of the invention is that it envisages reducing a whole cheese to loose particulate matter, blending the loose matter with flavouring additives and then recompacting the resultant mixture in such a way as to obtain a new and original food product combining the traditional flavour of parmesan cheese with the more delicate and refined taste of mushrooms, truffles or herbs.
Claims

1) A process for the preparation of hard cheeses with added flavouring, characterized in that it comprises the steps of:
- washing the whole cheese;
- drying in treated and filtered air;
- crushing the whole cheese to produce a plurality of fragments and grating or shredding the fragments to obtain particles of granulometric size less than a predetermined value, or flakes of thickness less than a predetermined value, respectively;
- mixing the grated or shredded cheese with added flavours to obtain a blended intermediate product;
- pressing and recompacting the blended intermediate product;
- vacuum packaging the recompacted end-product.

2) A process as in claim 1, wherein the added flavours consist in 2% to 7% mushroom or truffle extract and 5% to 20% mushrooms or truffles in the naturally
occurring state.

3) A process as in claim 1, wherein the step of pressing and recompacting the blended intermediate product is effected in a vacuum.

4) A process as in claim 1, wherein the step of pressing and recompacting the blended intermediate product comprises a first compaction effected at a pressure of 5 bar approx and a second compaction effected at a pressure of 8 to 10 bar.

5) A product of compact structure, characterized in that it consists in a hard granular cheese with an added flavouring of truffles, mushrooms or aromatic herbs.

6) A product as in claim 5, consisting in parmesan cheese, typically Parmigiano Reggiano or Grana Padano, flavoured with 2% to 7% mushroom or truffle extract and 5% to 20% mushrooms or truffles in the naturally occurring state.
fig. 1

- washing
  - drying
    - crushing
      - grating
        - blending
          - pressing
            - packaging
INTERNATIONAL SEARCH REPORT

I. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl.5 A 23 C 19/09 A 23 C 19/06

II. FIELDS SEARCHED

Minimum Documentation Searched

Classification System Classification Symbols

Int.Cl.5 A 23 C

Documentation Searched other than Minimum Documentation to the Extent that such Documents are Included in the Fields Searched

III. DOCUMENTS CONSIDERED TO BE RELEVANT

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IV. CERTIFICATION

Date of the Actual Completion of the International Search

20-12-1991

Date of Mailing of this International Search Report

31.01.92

International Searching Authority

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ON INTERNATIONAL PATENT APPLICATION NO. IT 9100085
SA 52826

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