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(54) **HIGH PROTEIN CRISPY FOOD PRODUCT AND METHOD FOR PREPARING THE SAME**

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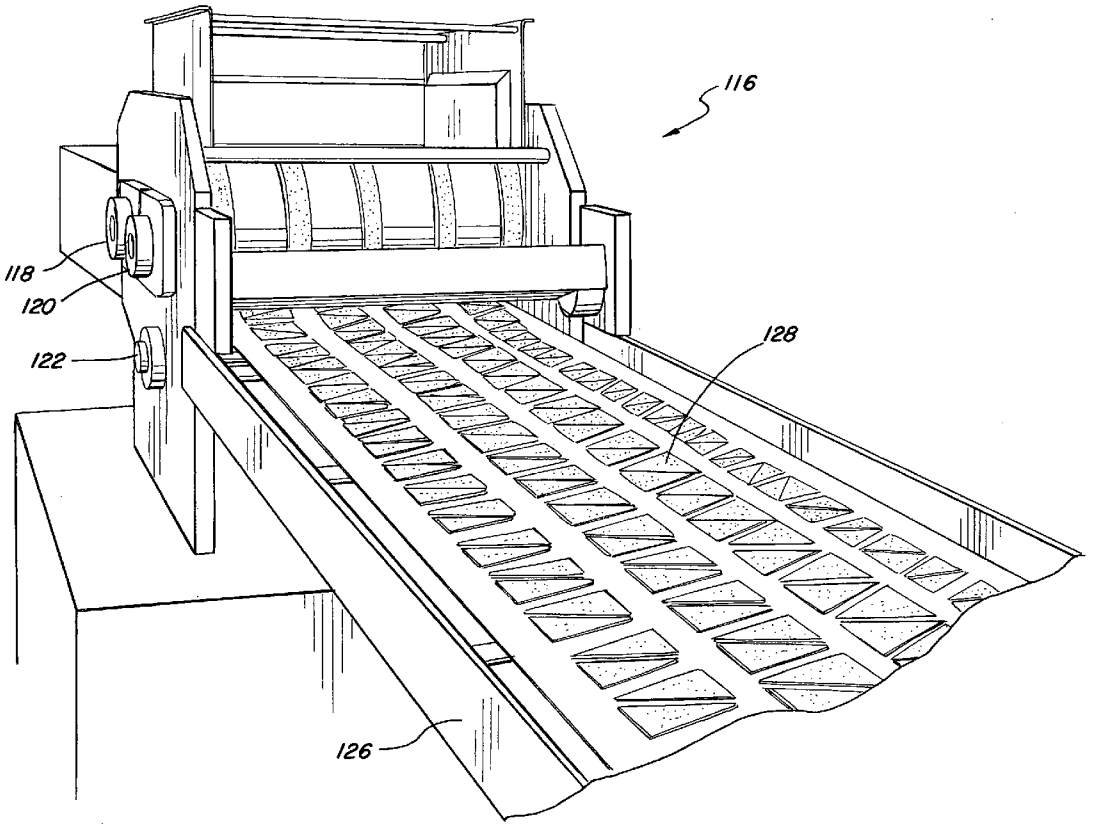
USPC **426/644**

(57) **ABSTRACT**

The present disclosure generally relates to a high protein crispy poultry food product and method for preparing the same. The snack chip can contain chicken or turkey and have a fat content of between 0-20% by weight. The snack chips can be formed from dough containing 30-100% by weight of chicken or turkey and having a protein content equal to, or above 3% by weight. The dough can also have a moisture content of approximately 20-70% by weight. To achieve the targeted moisture content, dry dough products, such as corn masa, potatoes, or rice, can be mixed with the turkey or chicken. Add back, or partial drying can also be used to reduce the moisture content. Dray ice can also be added to the dough to sufficiently cool the dough to prevent it from sticking to the rollers.



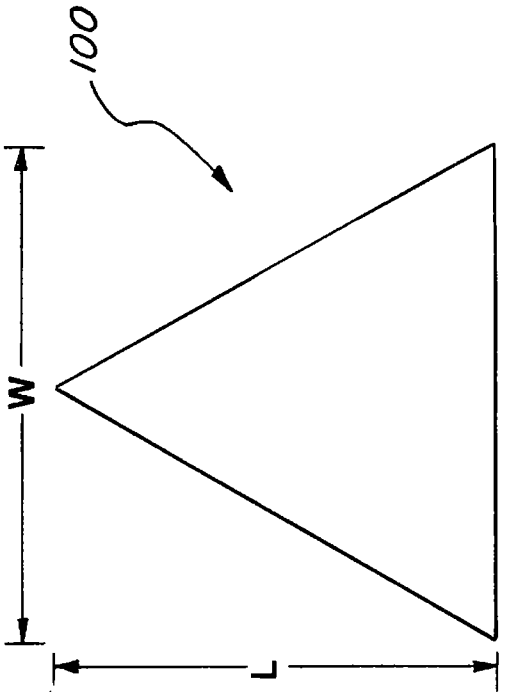


FIG. 1

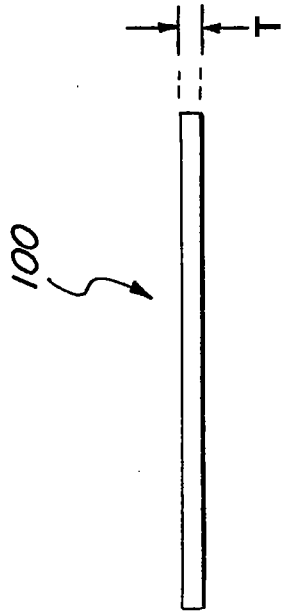


FIG. 2

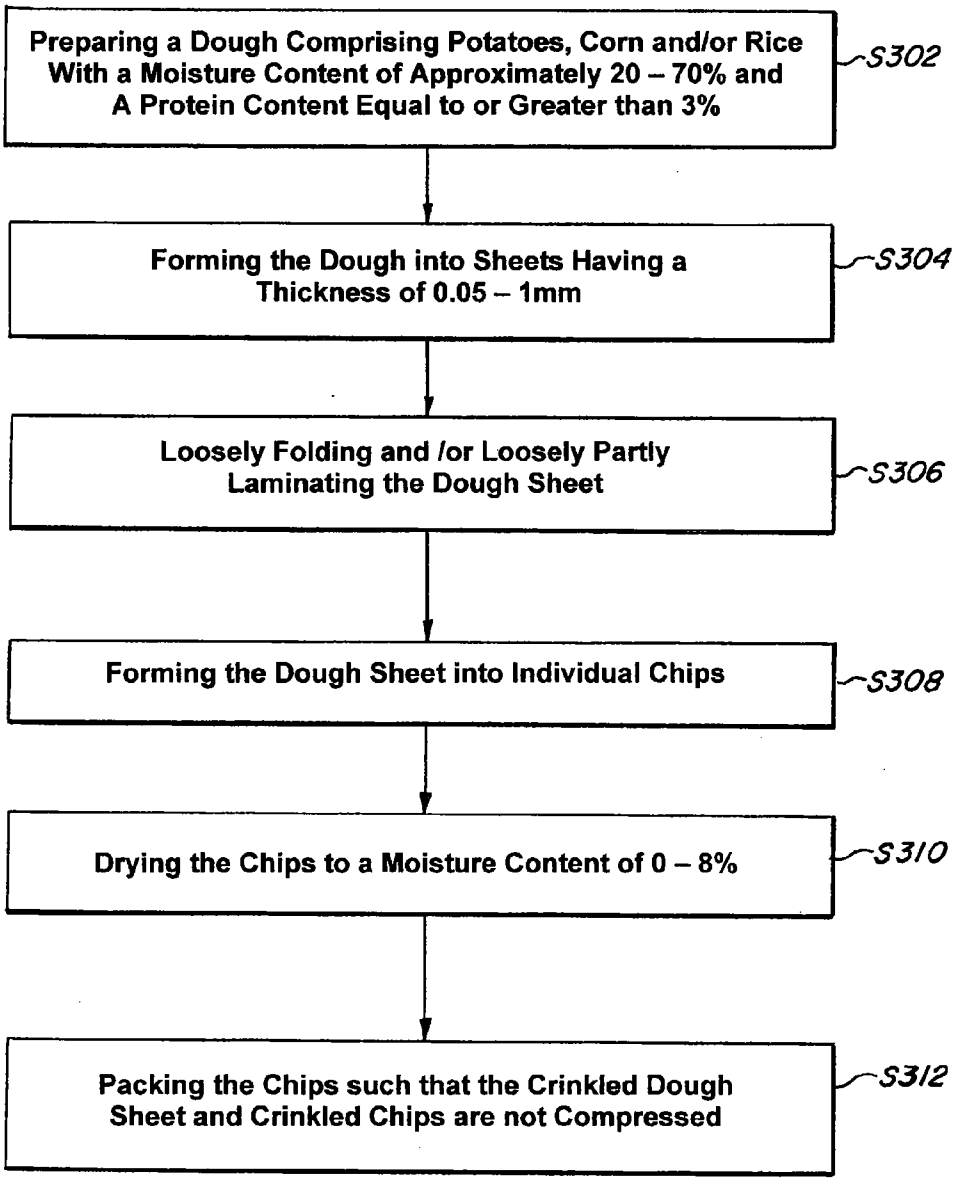

Preparing a Dough Comprising Potatoes, Corn and/or Rice With a Moisture Content of Approximately 20 – 70% and A Protein Content Equal to or Greater than 3%
S302
Forming the Dough into Sheets Having a Thickness of 0.05 – 1mm
S304
Loosely Folding and /or Loosely Partly Laminating the Dough Sheet
S306
Forming the Dough Sheet into Individual Chips
S308
Drying the Chips to a Moisture Content of 0 – 8%
S310
Packing the Chips such that the Crinkled Dough Sheet and Crinkled Chips are not Compressed
S312

FIG. 3

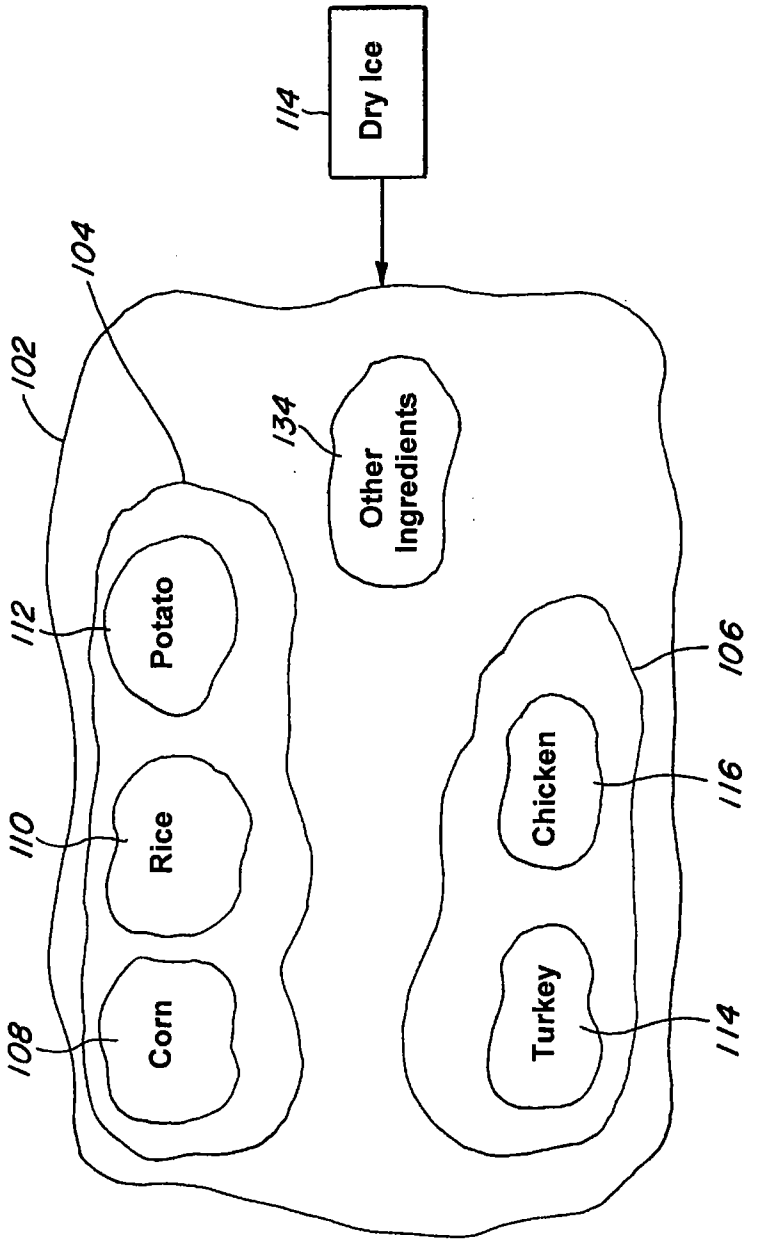

Dry Ice
114
104
102
134
Other Ingredients
112
Potato
110
Rice
108
Corn
106
Chicken
116
Turkey
114

FIG. 4

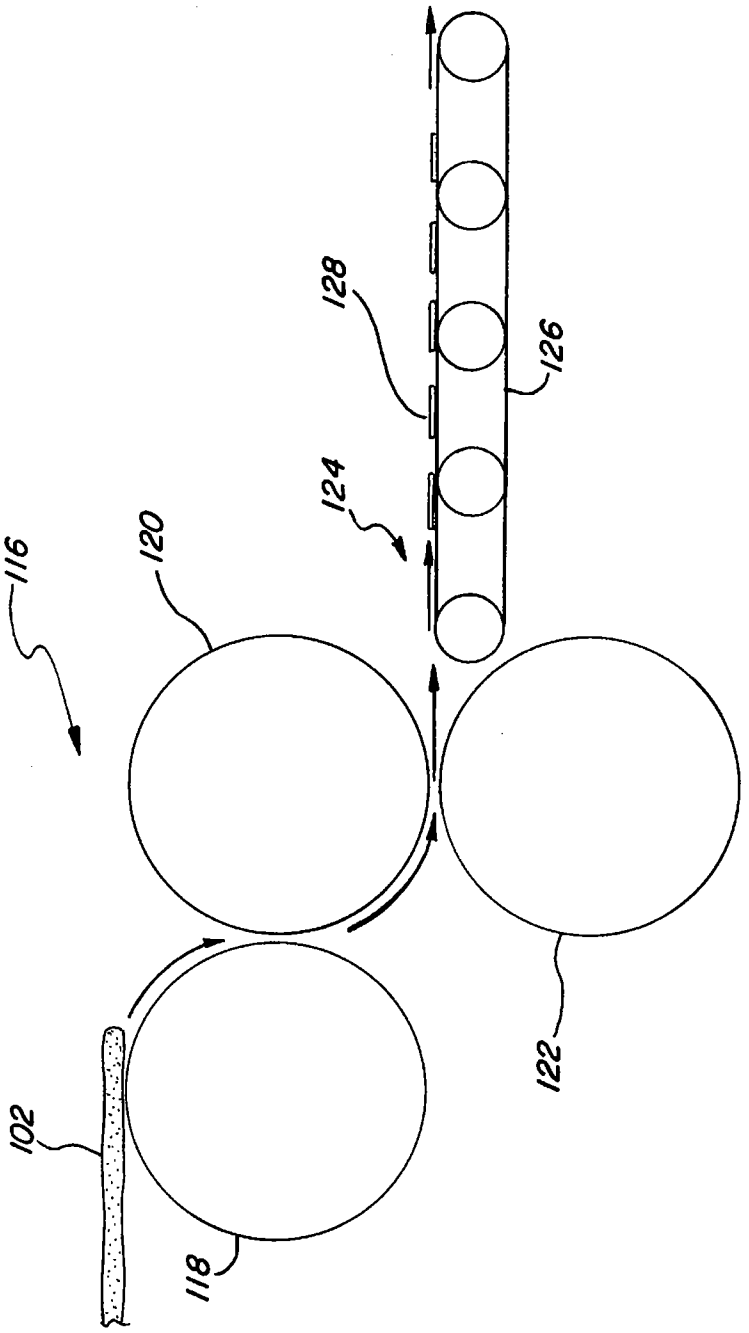


FIG. 5

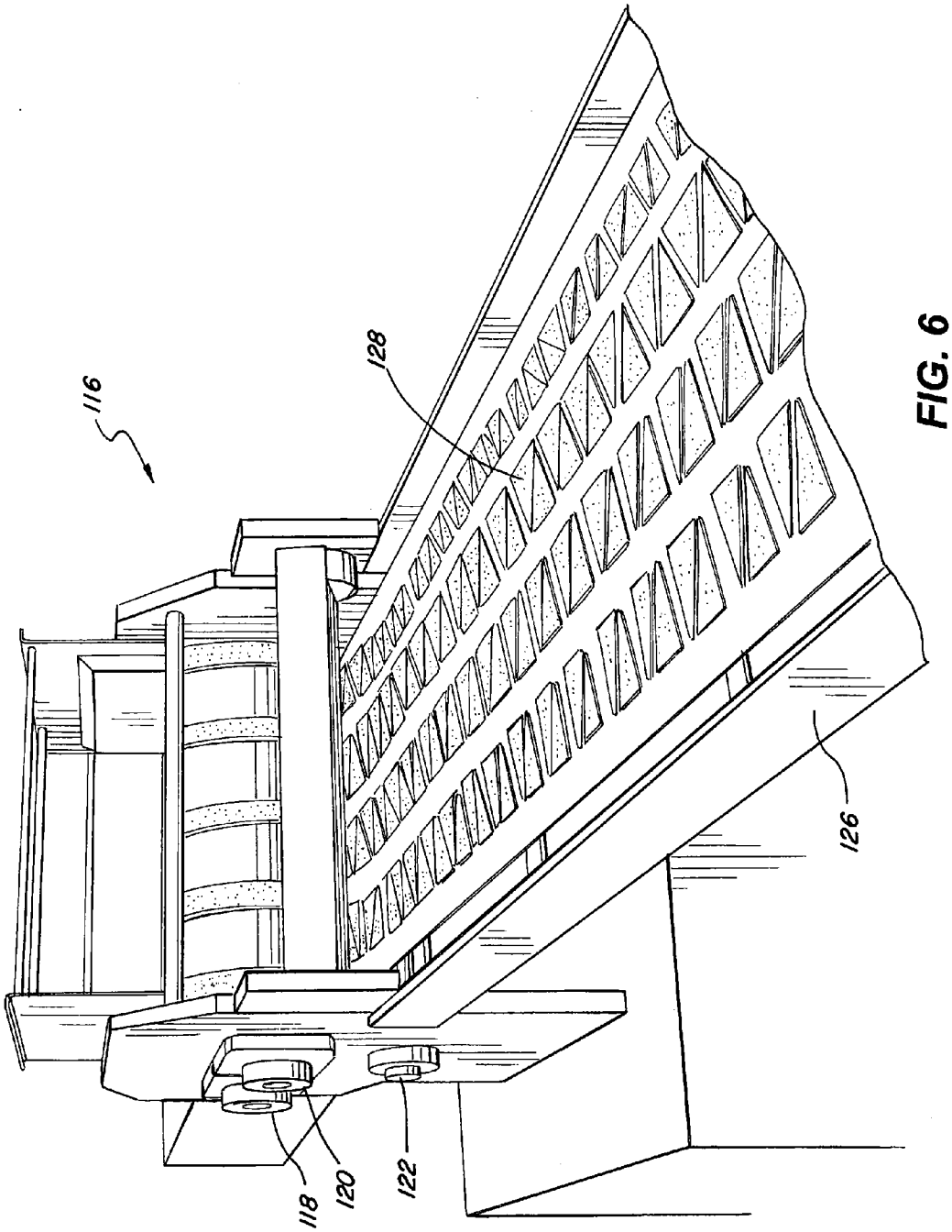


FIG. 6

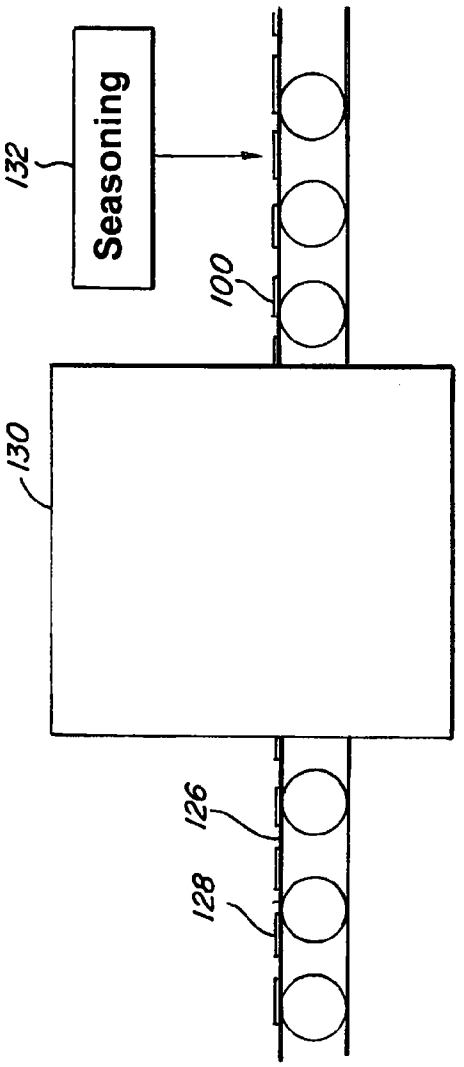


FIG. 7

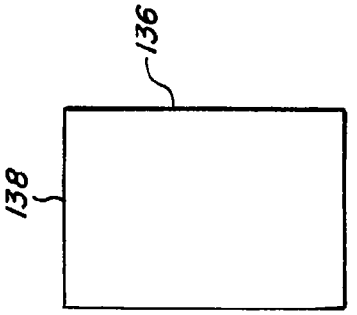


FIG. 9

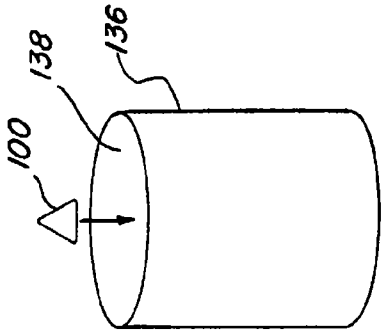


FIG. 8

HIGH PROTEIN CRISPY FOOD PRODUCT AND METHOD FOR PREPARING THE SAME

RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Patent Application Ser. No. 61/110,456, entitled "HIGH PROTEIN CRISPY POULTRY SNACK FOOD PRODUCT AND PROCESS FOR PREPARING THE SAME," filed on Oct. 31, 2008, which is incorporated herein in its entirety.

FIELD OF THE DISCLOSURE

[0002] The present disclosure generally relates to a high protein crispy food product and method for preparing the same.

DESCRIPTION OF THE RELATED ART

[0003] Snack food such as potato chips or crisps, have enjoyed wide popularity for a long time. Examples of such products are described, for example, in U.S. Pat. No. 4,973,481, U.S. Pat. No. 3,835,222, U.S. Pat. No. 3,997,684, U.S. Pat. No. 4,283,425, U.S. Pat. No. 5,690,982, U.S. Pat. No. 5,500,982, U.S. Pat. No. 5,690,982, U.S. Pat. No. 5,500,240, or GB Pat. No. 2290216.

[0004] Usually portions of 50 g-500 g of the potato chips or crisps are packed in hermetically sealed bags, and eaten, usually without heating, as a snack product. They can be optionally eaten with added seasoning or a dip. Conventionally, such potato chips or crisps are prepared by thinly slicing potatoes, and the slices are deep-fried in hot oil at temperatures between 160-220° C. However, other variants are made out of potato starch and/or corn starch. The potato chips or crisps are then optionally salted and/or flavored. Good quality crisps tend to be dry and crispy.

[0005] Also, using potato starch and/or corn starch, other variants in shape have been designed, but most of those dry, savory starch-based snack products contain a fairly large amount of oil or fat, due to the manner of preparation. The conventional potato chips or crisps can, for example, have oil and fat up to 35% weight of the chips or crisps. Low fat chips can also be problematic in that they do not have a sufficiently reduced amount of fat or oil, and can often have a reduced amount of taste.

[0006] However, in the last few decades, consumers have become increasingly health conscious, and are hesitant to consume such a large amount of oil and fat in their snacks. Furthermore, conventional potato chips and crisps tend to have a low amount of protein making them unsavory for people who are looking for snacks which are nutritious yet delicious. This can be problematic, for example, for athletes which require protein. Thus, there is a need for a tasty, reduced fat, crispy, crunchy snack food product with a high amount of protein and a method of producing the same.

BRIEF SUMMARY OF THE INVENTION

[0007] The present invention is a tasty, reduced fat, crispy, crunchy snack food product with a high amount of protein and a method of producing the same. The snack food product can be, for example, a snack chip formed from turkey or chicken. The snack chips can be consumed at similar times and in a similar manner as conventional chips, yet having a reduced fat and high protein content and good quality. The snack chips can give a crispy feeling in the mouth allowing them to break easily upon eating, and not be too hard. They can also have a shape that is recognizable as chip or crisp alternative, and can have such a structural stability to allow packing a plurality of such products in a bag without excessive breakage of the products and without affecting the crispiness associated with chips or crisp. Thus, the snack chip of the present invention is a healthy snack alternative to conventional potato chips or crisps while retaining the shape, sensation, and flavors of the conventional potato chips or crisps.

[0008] The snack chip can have a fat content of between 0-20% by weight, and preferably 0.1-20%, 0.1-10%, or 0.1-5% by weight. The snack chip can also have at least 40% and preferably 60% by weight, dry dough components of one or more potato, corn, or rice. Furthermore, the snack chip can also include 30-100% by weight wet dough components of turkey or chicken. The snack chip can also have a thickness of approximately 2-30 mm and preferably 3 to 10 mm, and also have a length and width of approximately 1-8 cm and preferably 2-6 cm. Furthermore, the snack chip can contain, on at least one side, a plurality of crinkles composed of two thin sheets enclosing a void. The two thin sheets can have a thickness of 0.05-1 mm, and preferably 0.05-0.6 mm or 0.1-0.4 mm. The void can be, for example, a gas such as air. The snack chip can also have a weight of approximately 0.1-8 g and more preferably 0.3-5 g or 0.5-3 g.

[0009] In one embodiment, the snack chips can be formed from dough containing 30-100% by weight wet dough products. The wet dough products can be, for example, chicken or turkey, allowing the dough to have a protein content equal to, or above 3% by weight. The dough can also have a moisture content of approximately 20-70% by weight, and more preferably 35-70% by weight, 45-65% by weight or 50-65% by weight. To achieve the targeted moisture content, dry dough products, such as corn masa, potatoes, or rice, can be mixed with the wet dough products. Other processes such as add back, or partial drying can also be used to reduce the moisture content. By reducing the moisture content to the targeted levels, the dough can be prevented from sticking onto the rollers. Dry ice can also be added to the dough to sufficiently cool the dough to prevent it from sticking to the rollers. Furthermore, the rollers can also be treated, for example with a non-stick material, or chilled, to prevent the dough from sticking to the rollers.

[0010] The dough can be formed in sheets of approximately 0.05-1 mm and preferably 0.05-0.6 mm, 0.1-0.6 mm, or 0.1-0.4 mm by forcing them through the rollers. The rollers can also cause the dough to be loosely folded and/or loosely partly laminated. The dough can then be cut into chips and the chips can be dried to a moisture content of 0-8% and preferably 0-6% to form the snack chips. The snack chips can be packaged such that they are not compressed.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The exact nature of this invention as well as other objects and advantages thereof will be readily apparent from consideration of the following specification in conjunction with the accompanying drawings in which like numerals designate like parts through the figures thereof and wherein:

[0012] FIG. **1** depicts a snack chip according to an embodiment of the present invention;

[0013] FIG. **2** is a side view of a snack chip according to an embodiment of the present invention;

[0014] FIG. **3** depicts a process according to an embodiment of the present invention;

[0015] FIG. **4** depicts a dough according to an embodiment of the present invention;
[0016] FIG. **5** is a simplified side view of a dough processor according to an embodiment of the present invention;
[0017] FIG. **6** is a perspective view of a dough processor according to an embodiment of the present invention;
[0018] FIG. **7** is a simplified side view of a furnace according to an embodiment of the present invention;
[0019] FIG. **8** depicts snack chips being placed in a bag according to an embodiment of the present invention; and
[0020] FIG. **9** depicts a sealed bag according to an embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0021] As seen in FIG. **1**, the present invention includes a snack chip **100**. The snack chip **100** is in a triangular shape. However, the snack chip **100** can have any suitable shape, such as a leaf shape, a saddle shape (concave-convex), a concave shape, or any other shape suitable for a snack product.
[0022] The snack chip **100** can have, for example, a length L of between 1 and 8 cm. The snack chip **100** can also have, for example, a width W of between 1 and 8 cm. As seen in FIG. **2**, the snack chip **100** can also have a thickness T between 2 and 30 mm. In one embodiment, the snack chip **100** preferably has a thickness T between 3 and 10 mm. In another embodiment, the snack chip can be of any size and can have any length, width, or thickness which allows a user to consume the snack chip **100**.
[0023] The snack chip **100** can include, for example, an increased amount of protein with ingredients such as potatoes, corn, rice, turkey, chicken, other poultry meat, and/or any other types of meat products. Other types of meat products can include, for example, beef, pork, and/or venison. The turkey, chicken, other poultry meat, and/or any other types of meat products increase the protein content of the snack chip **100** above a conventional potato chip. This can improve, for example, the nutritional value of the snack chip **100** over a conventional potato chip.
[0024] The snack chip **100** can thus be formed, for example, from a process disclosed in FIG. **3**. In Step S**302**, the dough is prepared comprising potatoes, corn, and/or rice with a moisture content of approximately 20-70%, and more preferably 35-70% with a protein content equal to or greater than 3%. For example, a dough **102** can be seen in FIG. **4**. The dough **102** can include, for example, a dry dough component **104**, a wet dough component **106**, and/or other ingredients **134**. The dry dough component **104** can include, for example, corn **108**, rice **110**, and/or potatoes **112**. The wet dough component **106** can include, for example, poultry products such as turkey **114** and/or chicken **116**. The turkey **114** and the chicken **116** can be in the form of turkey mash and chicken mash, respectively. The wet dough component **106** can also include other poultry products such as duck, geese, and/or quail.
[0025] The dry dough component **104** and/or the wet dough component **106** can comprise 30-100% by weight of the dough. In one embodiment, the present invention can have the wet dough component **106** comprise 30-100% by weight of the dough **102**. The increased usage of turkey **114** and/or the chicken **116** over the corn **108**, the rice **100**, and/or the potato **112** can increase the taste and consumer appeal of the snack chip **100**. This can be particularly true if the turkey **114** and/or the chicken **116** are low in fat and/or have a pleasant, non-bitter poultry taste. In one embodiment, fresh 99% fat free turkey and/or chicken breast is preferably used for the turkey **114** and/or the chicken **116**. Furthermore, the increased usage of the turkey **114** and/or chicken **116** can improve a protein content of the dough and ultimately the snack chip **100**.

[0026] The dough **102** can also include, for example, a moisture content of approximately 20-70% by weight. In one embodiment, the dough **102** is 20-70% by weight, and preferably includes a moisture content of 35-70% by weight or 45-65% by weight. In another embodiment, the dough **102** more preferably includes a moisture content of 50-65% by weight. If the dough **102** is too wet, the dough tends to stick to rollers during processing (which will be described later).

[0027] However, a mash of the turkey **114** or the chicken **116** usually has a moisture content of approximately 80%. This may be too moist for the dough **102** and may cause the dough **102** to stick to the rollers. Thus, either the dough **102** needs to have its moisture content reduced or other methods must be used to ensure that the dough **102** does not stick to the rollers, such as by treating the dough and/or the rollers with non-stick substances and/or cooling the dough **102** and/or the rollers. In one embodiment, to ensure that the dough **102** has the proper moisture content, a balancing and mixing of the wet dough component **106** including the turkey **114** or the chicken **116**, with the dry dough component from non-turkey or non-chicken origins, such as the corn **108**, the rice **110**, and/or the potato **112**, can be performed. The corn **108** can be, for example corn masa.

[0028] In another embodiment, moisture can be removed, for example from the turkey **114** or the chicken **116**, through moisture reducing steps such as partial drying. If the dough **102** contains some oil or fat, a reduced amount of moisture content can be acceptable in order to achieve a good, machinable dough **102**. In another embodiment, dry ice **114** can also be added to the dough **102** to cool the dough. This reduction in temperature can help reduce the stickiness of the dough **102** and reduce the likelihood of the dough **102** sticking to the roller.

[0029] In yet another embodiment, an add back process may be used in which cooked turkey **114** or cooked chicken **116** are reduced in moisture content by adding back enough previously drive granules to produce a sufficiently dry, yet moist mix which after holding can be satisfactorily granulated to a fine power. The fine powder can also include emulsifiers, anti-oxidants, colorants, and/or flavors.

[0030] The other ingredients **134** can include, other type of material suitable to producing snack chip **100**. For example, the other ingredients **134** can include vegetable matter preferably in the form dry powder. The dry powder can include, for example, herbs, spices, onion, dried tomato powder or purée, red bell pepper powder or purée, or any other types of powder or purée material. The other ingredients **134** can also include oils, salt, sugar, sweeteners, flavoring, vitamins, and/or supplements. The oil can, for example, help to prevent the dough **102** from sticking to the rollers. The dough **102** can include, for example, 0.1-5% salt, and/or 10% of sugar or other sweetener. The vitamins and/or supplements can increase, for example, the nutritional content of the snack chip **100**. The other ingredients **134** can be included in an amount of 0.1-30% and can be included into the dough **102** prior to forming. In one embodiment, part or all of the other ingredients **134** can be incorporated into the dough **102** while the dough **102** is fresh dough. In another embodiment, part or

all of the other ingredients **134** can be incorporated into the dough **102** after the shaping and prior to, during, or after the drying.

[0031] Furthermore, the other ingredients **134** can optionally be incorporated using a carrier, dispersing or sticking agent, such as water, oil, emulsion, or other types of materials. A browning or seasoning agent may be sprayed onto the particles of the other ingredients **134** using the dispersion agent. In one embodiment, when the other ingredients **134** are herbs, salt, spices, seasonings, or flavors, the other ingredients **134** can be sprayed onto the sheeted dough **102**, the chips formed from the dough **102**, and/or the dried chips formed from the dough **102** as a solution or dispersion in water, oil, or an oil and water containing emulsion.

[0032] In Step S**304**, the dough is formed in to sheets having a thickness of approximately 0.05 mm to 1 mm. In one embodiment, the dough **102** is preferably between 0.05 mm and 0.6 mm thick. In another embodiment, the dough **102** is preferably between 0.1 mm to 0.6 mm thick. In yet another embodiment, the dough **102** is preferably between 0.1 mm to 0.4 mm thick. However, the dough **102** can be of any thickness such that the user can consume the snack chip **100**. The flattening of the dough **102** can be achieved though any suitable conventional sheet-forming means. The sheet-forming means may comprise extrusion, pressing through a die, or by rolling of the dough into sheets using one or more rollers.

[0033] For example, in FIGS. **5** and **6**, the dough **102** is fed through the dough processor **116** in a direction **124**. The dough processor **116** can include, for example, a roller **118**, a roller **120**, a cutter roller **122**, and a conveyer belt **126**. The dough **102** can be fed through the rollers **118** and **120** to form the sheet of the dough **102**. The rollers **118** and **120** can extrude the dough **102** with high enough pressure to flatten the dough **102**, but a low enough pressure to prevent the dough **102** from becoming too firm or having too hard of a texture. Although the rollers **118** and **120** are used, any other device capable of flattening or extruding the dough **102** without the dough **102** becoming too firm or having too hard of a texture may be used.

[0034] In one embodiment, the rollers **118** and **120** and/or the cutter roller **122** can be chilled to prevent the dough **102** from sticking to the rollers **118** and **120** and/or the cutter roller **122** due to the moisture content of the dough **102**. For example, the lower temperature of the rollers **118** and **120** could prevent the dough **102** from sticking to the rollers **118** and **120** and/or the cutter roller **122** due to the higher moisture content in the dough **102** from the wet dough component **106**. The rollers **118** and **120** and/or the cutter roller **122** can also be coated with non-stick material such as polytetrafluoroethylene (PTFE), also known as Teflon® by DuPont, to prevent the dough **102** from sticking to the rollers **118** and **120** and/or the cutter roller **122** due to the moisture content of the dough **102**.

[0035] In Step S**306**, the dough sheet can be loosely folded and/or loosely partly laminated. For example, the dough sheet of the dough **102** can be loosely folded and/or loosely partly laminated after exiting the rollers **118** and **120**. Thus, after exiting the rollers **118** and **120**, the dough **102** may not be completely flat but instead could be partially layered on top of each other, and/or curved. In Step S**308**, the dough sheet is formed into individual sheets. For example, in FIGS. **5** and **6**, the dough sheet from the dough **102** can be cut by the cutter roller **122** into the chips **128** and placed on the conveyer belt **126**. The dry dough material **104**, such as the corn **108**, the rice **110**, and/or the potato **112** can be sufficient to glue the folds together and hold them together until and after the chips **128** have been through the furnace and/or a drying stage. The roller cutter **122** can form the chips **128** into any shape, such as a triangular shape, leaf shape, oval shape, and/or saddle shape.

[0036] In one embodiment, the chips **128** can be placed into molds (not shown), and the molds with the chips **128** can be sent to the furnace **130**. In such a case, the chips **128** can be formed by stamping, for example by the cutter roller **122**. The molds can be, for example, gutter or trough shaped and can run perpendicular to the moving conveyer belt **126**. The molds can be coated with PTFE or Teflon® and be in various shapes, such as a triangle with a radius of 3-20 cm, a width of 3-8 cm, and a depth of 0.5-2 cm.

[0037] Although the rollers **118** and **120** can loosely fold and/or loosely partly laminate the dough **102**, in another embodiment, the rollers **118** and **120** can feed the dough **102** into a transport unit such as a conveyer belt. The conveyer belt can move at a faster pace than the movement of the dough **102**, causing the dough to loosely fold and/or loosely partly laminate. This can be achieved, for example, when the ratio of the speed of the dough **102** leaving the rollers **118** and **120** to the speed of the transport unit is between 100:1 and 3:1, and preferably between 50:1 and 5:1.

[0038] In Step S**310**, the chips are dried such that it contains a moisture content of 0-8%. For example as seen in FIG. **7**, the chips **128** are fed into a furnace **130** by the conveyer belt **126**. The furnace **130** can reduce the moisture content of the chips **128** to a moisture content of 0-8% to form the snack chips **100**. Due to the lamination and/or folding, blisters could be formed on the snack chips **100**. The furnace **130** can dry the chips **128** in multiple stages. For example, in a first drying stage, the furnace can have a temperature of between 80-160° C., and preferably 90-130° C. In a second drying stage, the furnace can have a temperature of between 60-100° C. and preferably 60-90° C. in order to reduce the moisture level to 0-8%.

[0039] In another embodiment, the drying can be accomplished using temperatures of up to 140° C., 160° C., or even 200° C. in any of the stages. In yet another embodiment, drying can be accomplished at temperatures below 100° C., such as between 60° C. to 100° C. or 75° C. to 100° C., but may result in a bleak color for the chips **128**. The snack chips **100** can also be flavored by seasoning **132**.

[0040] The furnace **130** can include, for example, fire, heat lamps, ultra violet lamps, or any other type of device which can be used to reduce the moisture content of the chips **128**. Furthermore, although the furnace **130** is used, an oven, a fryer, or any other type of heating device can be used instead of or in addition to the furnace **130** to reduce the moisture content without drastically increasing the fat content of the chips **128**. The fryer can be, for example, an expeller pressed oil deep-fryer. In addition, the chips **128** could be cured, air dried, gradually dried, and/or flash dried.

[0041] In final form, the snack chip **100** can have different amounts of material by weight than the dough due to the dehydration of the snack chip **100**. After dehydration, the snack chip **100** can have a fat content of between 0-20% by weight, and preferably 0.1-20%, 0.1-10%, or 0.1-5% by weight. The snack chip can also have at least 40% and preferably 60% by weight, dry components of one or more of the potato **112**, the corn **108**, and/or the rice **106**. The snack chip can also have 30-100% by weight, wet components of one or

more of the turkey **114** and/or the chicken **116**. The snack chip **100** can also include 0.2-60% of the other ingredients **134** by weight. In addition, the snack chip **100** can have a shelf life of at least 1 month.

[0042] The snack chip **100** can also have a thickness of approximately 2-30 mm and preferably 3 to 10 mm, and also have a length and width of approximately 1-8 cm and preferably 2-6 cm. Furthermore, the snack chip can contain, on at least one side, a plurality of crinkles composed of two thin sheets enclosing a void. The two thin sheets can have a thickness of 0.05-1 mm, and preferably 0.05-0.6 mm or 0.1-0.4 mm. The void can be, for example, a gas such as air. The snack chip **100** can also have a weight of approximately 0.1-8 g and more preferably 0.3-5 g or 0.5-3 g.

[0043] In Step S**312**, the chips are packed such that the crinkled dough sheet and the crinkled chips are not compressed. For example, in FIG. **8**, the snack chips **100** can be placed in a bag **100** through an opening **138** so that the snack chips **100** are not compressed. In FIG. **9**, the bag **136** can be sealed, for example at the opening **138**.

[0044] Obviously many modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims the invention may be practiced otherwise than as specifically described.

1. (canceled)

2. (canceled)

3. A baked or fried low fat, high protein, crispy, golden colored snack food chip 2 to 30 mm thick comprising:

30-100 weight % turkey and/or chicken;

30-49 weight % dried dough component comprising corn;

0.1-30 weight % oils, salt, herbs, spices, onion, dried tomato powder or puree, red bell pepper or puree, sugar, sweeteners, flavoring, vitamins and supplements, emulsifiers, anti-oxidants, colorants, seasoning, and/or vegetable matter other than turkey, chicken and corn;

0.1-10 weight % salt and

0-8 weight % moisture for a total of 100 weight %.

4. The baked or fried low fat, high protein, crispy, golden colored snack food chip according to claim **3** wherein the food chip has a fat content between 0.1 and 20% by weight.

5. The baked or fried low fat, high protein, crispy, golden colored snack food chip according to claim **3** wherein the food chip has a fat content between 0.1 and 5% by weight.

6. The baked or fried low fat, high protein, crispy, golden colored snack food chip according to claim **3** wherein the food chip is 3 to 10 mm thick.

7. The baked or fried low fat, high protein, crispy, golden colored snack food chip according to claim **3** wherein the shape of the chip has a flat triangle shape, leaf shape, saddle shape or concave shape.

8. The baked or fried low fat, high protein, crispy, golden colored snack food chip according to claim **3** wherein the weight of the food chip is 0.1 to 8 g.

9. A method of preparing a low fat, high protein, crispy, golden colored snack food chip 3-10 mm thick comprising the steps of:

Preparing a wet dough component of turkey and/or chicken mash;

Preparing a dry dough component of corn masa:

Preparing a dough preparation from the wet dough component and the dry dough component, the wet dough component comprising 30-100 weight % of the dough, the dough having a moisture content of 20-70 weight %;

Forming the dough preparation into sheets by sheet-forming means;

Cutting the sheets to form moist snack food chips; and

Drying the moist snack food chips in a drying stage to obtain a dried low fat, high protein, golden colored snack food chip comprising 30-100 weight % turkey and/or chicken; 30-49 weight % corn masa and a moisture content of 0-8 weight % for a total of 100 weight %.

10. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the wet dough is prepared from 99% fat free turkey and/or chicken mash.

11. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **10** wherein the 99% fat free turkey and/or chicken mash is prepared from pre-cooked turkey and/or chicken.

12. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the sheet-forming means comprises a roller press with opposing rollers to form sheets from the dough preparation.

13. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **12** wherein the dough preparation is cooled or partially dried prior to forming the sheets to prevent the dough from sticking to the rollers of the sheet-forming means.

14. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **13** wherein the sheets are pressed into a cutter to form the moist food chip shapes.

15. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **14** wherein the moisture content of the moist food chip shapes is reduced in the drying stage to 0-8 weight %.

16. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **14** wherein the moist food chip shapes are passed through a single stage or two stage furnace in the drying stage to reduce the moisture content of the moist food chip shapes to 0-8 weight %.

17. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **14** wherein the moisture content of the moist food chip dough are reduced at temperatures up to 200° C. in a single stage or two stage furnace in the drying stage to 0-8 weight %.

18. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **14** wherein the moisture content of the moist food chip shapes is reduced using a an expeller pressed oil deep-fryer in the drying stage to 0-8 weight %.

19. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the 99% fat free turkey and/or chicken mash is prepared from pre-cooked turkey and/or chicken.

20. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the wet dough is prepared from 99% fat free turkey mash.

21. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the wet dough is prepared from 99% fat free turkey mash. is prepared from pre-cooked turkey and/or chicken.

22. The method of preparing a low fat, high protein, crispy, golden colored snack food chip according to claim **9** wherein the dried snack food chip has a fat content of between 0.1-5 weight %.

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