METHOD OF MANUFACTURING A SMOKABLE CANNABIS PRODUCT

Applicant: Mark B. Uren, The Colony, TX (US)
Inventor: Mark B. Uren, The Colony, TX (US)
Appl. No.: 14/743,611
Filed: Jun. 18, 2015

Publication Classification
Int. Cl.  
A24B 3/12 (2006.01)  
A24B 3/04 (2006.01)

U.S. CL  
CPC: A24B 3/12 (2013.01); A24B 3/04 (2013.01)

ABSTRACT
A method of manufacturing a smokable cannabis product allows for the thorough processing of a quantity of raw cannabis leaves into a quantity of cured cannabis leaves. The quantity of cured cannabis leaves is then separated into lamina and a plurality of remainder plant parts. The smoking properties of the lamina and each of the plurality of remainder plant parts are optimized prior to inclusion into the smokable product. The lamina and the plurality of remainder plant parts are then blended and prepared into the smokable product. The composition of the smokable product is adjusted by selectively incorporating the lamina and the plurality of remainder plant parts into the final blend. Flavorings are then mixed into the smokable product in order to achieve the desired flavor of the cannabis product. Tobacco may be incorporated into the cannabis product as well.
(A) Providing a quantity of raw cannabis leaves

(B) Drying the quantity of raw cannabis leaves into a quantity of cured cannabis leaves

(C) Separating the quantity of cured cannabis leaves into lamina and a plurality of remainder plant parts

(D) Optimizing smoking properties of the lamina in order to prepare the lamina for inclusion into a smokable product

(E) Optimizing smoking properties for each of the plurality of remainder plant parts in order to prepare each of the plurality of remainder plant parts for inclusion into the smokable product

(F) Blending and preparing the lamina and the plurality of remainder plant parts into the smokable product

(G) Mixing flavorings into the smokable product

FIG. 1
Modifying a flavor of the lamina by aging the lamina for a defined period of time in order to optimize the smoking properties of the lamina.
A. Providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process

B. Adding hot water and agitating the debris in order to separate the water-soluble material from the fiber

C. Processing the fiber into a reconstituted leaf sheet

D. Dehydrating the water-soluble material in order to convert the water-soluble material into a quantity of tetrahydrocannabinol (THC) and a quantity of cannabidiol (CBD)

E. Mixing the quantity of THC and the quantity of CBD with flavorings, preservatives, and humectants

F. Infusing the quantity of THC, the quantity of CBD, flavorings, preservatives, and humectants to the reconstituted leaf sheet

G. Drying and cutting the reconstituted leaf sheet into lamina-sized pieces in order to produce reconstituted leaf

FIG. 3
FIG. 4

A

Providing debris as one of the plurality remainder plant parts, wherein the debris is produced from the cannabis manufacturing process

B

Grinding the debris into uniform size particles

C

Mixing the debris with processing aids in order to release pectin within the debris

D

Mixing the debris with flavorings, humectants, and preservatives

E

Binding the debris into a blended leaf sheet with the pectin by heating and drying the debris

F

Further drying and cutting the blended leaf sheet into lamina-sized pieces in order to produce blended leaf

G
FIG. 5

Providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process

Moistening the debris with water and steam

Rolling and cutting the debris into smaller sized particles

Drying the debris in order to volumetrically expand the smaller sized particles in order to produce improved stem
FIG. 6

A

B

C

Providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process

D

Moistening the debris with water and steam

E

Rolling and cutting the debris into smaller sized particles

F

Mixing humectants and sugar into the smaller sized particles

G

Drying the debris in order to volumetrically expand the smaller sized particles in order to produce expanded stem
A → B → C → D → E → F → G

- Cutting the lamina into uniform-sized pieces
- Mixing humectants and sugar into the lamina
- Impregnating liquid carbon dioxide into the lamina
- Volumetrically expanding the lamina by heating the liquid carbon dioxide within the lamina in order to produce expanded cannabis

FIG. 7
Individually conditioning the lamina and specified plant parts from the plurality of remainder plant parts with steam in order to increase moisture and temperature

Mixing humectants and flavorings into the lamina

Mixing the specified plant parts into the lamina in order to form a partial blend

Steaming and cutting the partial blend into uniform sized particles

Reducing moisture of the partial blend

Mixing the partial blend with non-specified plant parts from the plurality of remainder plant parts in order to create a final blend

Mixing flavorings into denatured ethyl alcohol in order to create a flavor application solution, wherein the flavorings are solvents of the flavor application solution and the denatured ethyl alcohol is the solute of the flavor application solution

Infusing the flavor application solution into the final blend

FIG. 8
METHOD OF MANUFACTURING A SMOKABLE CANNABIS PRODUCT

FIELD OF THE INVENTION

[0001] The present invention relates generally to a method for processing a smokable cannabis product. More specifically, the present invention is a method for manufacturing a smokable cannabis product for consumption.

BACKGROUND OF THE INVENTION

[0002] Tobacco is often consumed in a wide variety of forms including by smoking, chewing, and dipping. Tobacco may be processed into cigarettes, chewing tobacco, and dipping tobacco based on consumer needs. Additionally, loose tobacco is available for consumers who wish to roll their own cigarettes. However, while tobacco is commercially available in many forms, the same cannot be said for cannabis. Consumption of the compounds in cannabis has been shown to have therapeutic effects for a variety of conditions including, but not limited to, eating disorders, sleep disorders, anxiety, neurodegenerative disorders, and multiple sclerosis. Among the compounds found in cannabis, tetrahydrocannabinol (THC) and cannabidiol (CBD) in particular are considered to have medicinal benefits.

[0003] The present invention is a method for manufacturing a smokable cannabis product. The process followed by the present invention ensures that cannabis is thoroughly processed for flavor and consistency. The present invention enables the manufacturing of a smokable cannabis product that is purely cannabis or a smokable cannabis product that is blended with tobacco.

BRIEF DESCRIPTION OF THE DRAWINGS

[0004] FIG. 1 is a flowchart illustrating the overall process that is followed by the present invention.

[0005] FIG. 2 is a flowchart illustrating the secondary process that is followed by the present invention when optimizing the smoking properties of the lamina.

[0006] FIG. 3 is a flowchart illustrating the secondary process that is followed by the present invention when processing reconstituted leaf.

[0007] FIG. 4 is a flowchart illustrating the secondary process that is followed by the present invention when processing blended leaf.

[0008] FIG. 5 is a flowchart illustrating the secondary process that is followed by the present invention when processing improved stem.

[0009] FIG. 6 is a flowchart illustrating the secondary process that is followed by the present invention when processing expanded stem.

[0010] FIG. 7 is a flowchart illustrating the secondary process that is followed by the present invention when processing expanded cannabis.

[0011] FIG. 8 is a flowchart illustrating the secondary process that is followed by the present invention during final blending and processing.

DETAIL DESCRIPTIONS OF THE INVENTION

[0012] All illustrations of the drawings are for the purpose of describing selected versions of the present invention and are not intended to limit the scope of the present invention.

[0013] The present invention is a method of manufacturing a smokable cannabis product. The overall process followed by the present invention is shown in FIG. 1. In the preferred embodiment of the present invention, a quantity of raw cannabis leaves is processed into a smokable cannabis product.

[0014] The quantity of raw cannabis leaves is dried into a quantity of cured cannabis leaves in order to prepare the quantity of cured cannabis leaves for consumption. The quantity of cured cannabis leaves is separated into lamina and a plurality of remainder plant parts. The plurality of remainder plant parts is further individually processed in preparation for final blending with the lamina. The smoking properties of the lamina are optimized in order to prepare the lamina for inclusion into a smokable product. Smoking properties of the lamina include, but are not limited to, flavor, aroma, and smoothness. This is generally achieved by modifying the flavor of the lamina by aging the lamina for a defined period of time in order to optimize the smoking properties of the lamina as shown in FIG. 2. The smoking properties for each of the plurality of remainder plant parts are optimized as well in order to prepare each of the plurality of remainder plant parts for inclusion into the smokable product. The optimization of the smoking properties of the lamina and the plurality of remainder plant parts ensures that the cannabis is able to readily combust during smoking and enhances the flavor of the cannabis as well. After the smoking properties of the lamina and the plurality of remainder plant parts have been optimized, the lamina and the plurality of remainder plant parts are blended and prepared into the smokable product. The specific composition of the smokable product may be altered to achieve a desired taste or smoothness by incorporating the desired quantities of the lamina and the plurality of remainder plant parts into the smokable product. Flavorings are then mixed into the smokable product to achieve the desired taste of the smokable product.

[0015] With reference to FIG. 3, debris is one of the plurality of remainder plant parts that is produced from the cannabis manufacturing process. The debris contains stems, small lamina, and other small particles of cannabis, as well as water-soluble material and fiber. Hot water is added to the debris and the debris is then agitated in order to separate the water-soluble material from the fiber. The water-soluble material is separated from the debris in order to prepare the fiber for processing into sheet form. The fiber is then processed into a reconstituted leaf sheet in order to more closely resemble lamina. The water-soluble material is dehydrated in order to convert the water-soluble material into a quantity of tetrahydrocannabinol (THC) and a quantity of cannabidiol (CBD). The quantity of THC is the principal psychoactive constituent of the smokable cannabis product while the quantity of CBD exhibits several medicinal uses for symptoms such as mild to moderate pain, insomnia, depression, nausea, and appetite loss. The quantity of THC and the quantity of CBD is mixed with flavorings, preservatives, and humectants. Flavorings enhance the flavor of the reconstituted leaf sheet while the preservatives and humectants are able to maintain pliability of the reconstituted leaf sheet as well as aid in retaining moisture. The quantity of THC, the quantity of CBD, flavorings, preservatives, and humectants are infused to the reconstituted leaf sheet, providing the reconstituted leaf sheet with psychoactive and medicinal properties while additionally enhancing the reconstituted leaf sheet flavor, preventing degradation, and retaining moisture. The reconstituted leaf sheet is then
dried and cut into lamina-sized pieces in order to produce reconstituted leaf in preparation for incorporation into the cannabis product.

[0016] Referring to FIG. 4, debris is one of the plurality of remainder plant parts that is produced from the cannabis manufacturing process. The debris contains stems as well as small stub particles. The debris is ground into uniform size particles in preparation for processing into sheet form. The debris is then mixed with processing aids in order to release pectin within the debris. Pectin is a natural carbohydrate and gelling agent that allows the uniform size particles to be bound together. The debris is mixed with flavorings, humectants, and preservatives to enhance the flavor of the blended leaf, retain moisture, and prevent degradation. The debris is bound into a blended leaf sheet with the pectin by heating and drying the debris. Heated pectin forms a gel-like substance that is able to bind together the uniform size particles, forming the blended leaf sheet. When dried, the pectin is able to maintain the form of the blended leaf sheet. After the blended leaf sheet has been formed, the blended leaf sheet is further dried and cut into lamina-sized pieces in order to produce blended leaf in preparation for incorporation into the cannabis product, much like the reconstituted leaf sheet.

[0017] With reference to FIG. 5, debris is one of the plurality of remainder plant parts that is produced from the cannabis manufacturing process. Expanded material has more volume and less weight, increasing the cost effectiveness of the present invention. The improved stem is collected as debris from separating the quantity of cured cannabis leaves. The debris is moistened with water and steam in order to impart plastic properties on the debris that allows the debris to pull or expand easily. The debris is then rolled and cut into smaller sized particles in order to prevent the debris from clumping. After the debris has been rolled and cut, the debris is dried in order to volumetrically expand the smaller sized particles in order to produce improved stem in preparation for incorporation of the improved stem into the cannabis product.

[0018] Referring to FIG. 6, debris is one of the plurality of remainder plant parts that is produced from the cannabis manufacturing process. Like with improved stem, the debris is moistened with water and steam to facilitate the expansion process of the debris. The debris is then rolled and cut into smaller sized particles to prevent clumping. Humectants and sugar are mixed into the smaller sized particles in order to retain moisture as well as add flavor. The debris is then dried in order to volumetrically expand the smaller sized particles in order to produce expanded stem in preparation for incorporation of the expanded stem into the cannabis product.

[0019] With reference to FIG. 7, the lamina is cut into uniform-sized pieces in preparation for processing and incorporation into the cannabis product. Humectants and sugar are mixed into the lamina to retain moisture and add flavor. The lamina is then impregnated with liquid carbon dioxide in order to enhance expansion of the lamina. The lamina is then volumetrically expanded by heating the liquid carbon dioxide within the lamina in order to produce expanded cannabis. The lamina expands due to the fact that the liquid carbon dioxide changes state to a gas. The volume of the gaseous carbon dioxide is significantly high, causing the lamina to expand when heated.

[0020] The method followed by the present invention during final blending and processing is shown in FIG. 8. After the reconstituted leaf, the blended leaf, the improved stem, the expanded stem, and the expanded cannabis have been processed, the lamina and specified plant parts from the plurality of remainder plant parts are conditioned with steam in order to increase moisture and temperature of the lamina and specified plant parts from the plurality of remainder plant parts. The specified plant parts are selected based on the desired composition of the cannabis product. Humectants and flavorings are mixed into the lamina in order to retain moisture in the lamina as well as enhance the flavor of the lamina. The specified plant parts are mixed into the lamina in order to form a partial blend. The partial blend is processed independently prior to the creation of a final blend. In the preferred embodiment of the present invention, the partial blend contains the reconstituted leaf sheet and the blended leaf sheet. As such, the partial blend is steamed and cut into uniform sized particles in preparation for mixing with the remaining, non-specified plant parts from the plurality of remainder plant parts that are not in sheet form. The moisture of the partial blend is then reduced in preparation for creation of the final blend. The partial blend is mixed with non-specified plant parts from the plurality of remainder plant parts in order to create the final blend. In the preferred embodiment of the present invention, the non-specified plant parts contains the improved stem, the expanded stem, and the expanded cannabis. Final flavorings are mixed into denatured ethyl alcohol in order to create a flavor application solution. The flavorings are solvents of the flavor application solution while the denatured ethyl alcohol is the solute of the flavor application solution. Denatured ethyl alcohol is utilized as the denatured ethyl alcohol is able to dissolve the flavorings during creation of the flavor application solution. The flavor application solution is then infused into the final blend to evenly distribute the flavor application solution into the cannabis product.

[0021] After the cannabis product has been created, the cannabis product is ready for consumption for smoking. The cannabis product may be rolled into cigarette or cigar form for smoking. The cannabis product may be smoked by itself in purely cannabis form or alternatively, tobacco may be incorporated into the cannabis product as well in order to create a blended cannabis and tobacco product.

[0022] Although the present invention has been explained in relation to its preferred embodiment, it is understood that many other possible modifications and variations can be made without departing from the spirit and scope of the present invention as hereinafter claimed.

What is claimed is:
1. A method of manufacturing a smokable cannabis product, the method comprises the steps of:
   (A) providing a quantity of raw cannabis leaves;
   (B) drying the quantity of raw cannabis leaves into a quantity of cured cannabis leaves;
   (C) separating the quantity of cured cannabis leaves into lamina and a plurality of remainder plant parts;
   (D) optimizing smoking properties of the lamina in order to prepare the lamina for inclusion into a smokable product;
   (E) optimizing smoking properties for each of the plurality of remainder plant parts in order to prepare each of the plurality of remainder plant parts for inclusion into the smokable product;
   (F) blending and preparing the lamina and the plurality of remainder plant parts into the smokable product; and
   (G) mixing flavorings into the smokable product.
2. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
modifying a flavor of the lamina by aging the lamina for a defined period of time in order to optimize the smoking properties of the lamina.

3. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process;
adding hot water and agitating the debris in order to separate the water-soluble material from the fiber;
processing the fiber into a reconstituted leaf sheet;
dehydrating the water-soluble material in order to convert the water-soluble material into a quantity of tetrahydrocannabinol (THC) and a quantity of cannabidiol (CBD);
mixing the quantity of THC and the quantity of CBD with flavorings, preservatives, and humectants;
infusing the quantity of THC, the quantity of CBD, flavorings, preservatives, and humectants to the reconstituted leaf sheet; and
drying and cutting the reconstituted leaf sheet into lamina-sized pieces in order to produce reconstituted leaf.

4. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process;
grinding the debris into uniform size particles;
mixing the debris with processing aids in order to release pectin within the debris;
mixing the debris with flavorings, humectants, and preservatives;
binding the debris into a blended leaf sheet with the pectin by heating and drying the debris; and
further drying and cutting the blended leaf sheet into lamina-sized pieces in order to produce blended leaf.

5. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process;
mixing the debris with water and steam;
rolling and cutting the debris into smaller sized particles; and
drying the debris in order to volumetrically expand the smaller sized particles in order to produce improved stem.

6. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
providing debris as one of the plurality of remainder plant parts, wherein the debris is produced from the cannabis manufacturing process;
moistening the debris with water and steam;
rolling and cutting the debris into smaller sized particles;
mixing humectants and sugar into the smaller sized particles; and
drying the debris in order to volumetrically expand the smaller sized particles in order to produce expanded cannabis.

7. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
cutting the lamina into uniform-sized pieces;
mixing humectants and sugar into the lamina;
impregnating liquid carbon dioxide into the lamina; and volumetrically expanding the lamina by heating the liquid carbon dioxide within the lamina in order to produce expanded cannabis.

8. The method of manufacturing a smokable cannabis product, the method as claimed in claim 1 comprises the steps of:
individually conditioning the lamina and specified plant parts from the plurality of remainder plant parts with steam in order to increase moisture and temperature;
mixing humectants and flavorings into the lamina;
mixing the specified plant parts into the lamina in order to form a partial blend;
steaming and cutting the partial blend into uniform sized particles;
reducing moisture of the partial blend;
mixing the partial blend with non-specified plant parts from the plurality of remainder plant parts in order to create a final blend;
mixing flavorings into dematured ethyl alcohol in order to create a flavor application solution, wherein the flavorings are solvents of the flavor application solution and the denatured ethyl alcohol is the solute of the flavor application solution; and
infusing the flavor application solution into the final blend.

* * * * *