In some embodiments, dry blending occurs in an enclosed blender and a controlled environment to minimize oxidation and moisture exposure. Upon blending, the product can be readily stored in proper packaging, such as, for example packed tightly to form a brick like package with nitrogen flushing and maintained under controlled conditions, such as temperatures less than about 10° C.

In some embodiments, the physicochemical and sensory attributes of pulverized products can also be protected by means of encapsulation (spray-drying, coating, extrusion, coacervation and molecular inclusion). Some embodiments utilize microencapsulation. With encapsulation, the encasing layer is attained, for example, via molecular, interfacial, colloidal and bulk physicochemical properties of emulsions. The encasement reduces the reactivity of the core with regard to outside environment, for example oxygen and water. This permits the extension of shelf life of a product in conventional packaging applications. In some embodiments, encapsulation can be used for controlled release of the inner material or core. The encased pulverized product can remain inactive until direct contact with water. Then the water can dissolve the encasement and the pulverized product is able to react with water, releasing aromas and flavors.

In some embodiments, the encapsulation of pulverized coffee can be used to optimize product functionality, particle size and/or create a new product form. Encapsulation can be done with products including, coffee extracts, coffee concentrates, dry pulverized coffee, coffee oils or other oils, aromas, functional ingredients, etc. In addition, pulverized products can be encapsulated by carbohydrates, soy products, dairy products or other agents to protect against environmental elements

Conditional language, such as, among others, "can," "could," "might," or "may," unless specifically stated otherwise, or otherwise understood within the context as used, is generally intended to convey that certain embodiments include, while other embodiments do not include, certain features, elements and/or steps. Thus, such conditional language is not generally intended to imply that features, elements and/or steps are in any way required for one or more embodiments or that one or more embodiments necessarily include logic for deciding, with or without user input or prompting, whether these features, elements and/or steps are included or are to be performed in any particular embodiment.

It should be emphasized that many variations and modifications may be made to the above-described embodiments, the elements of which are to be understood as being among other acceptable examples. All such modifications and variations are intended to be included herein within the scope of this disclosure and protected by the following claims.

What is claimed is:

1. A method of making a soluble coffee beverage comprising:

pulverizing coffee beans to form a first pulverized coffee product;

grinding coffee beans to form a second ground coffee product;

extracting the second ground coffee product to form an extracted coffee product and spent coffee grounds;

combining a first portion of the first pulverized coffee product with the extracted coffee product to form a first coffee blend;

drying the first coffee blend to form a first dried coffee blend; and

combining a dairy component, a second portion of the first pulverized coffee product and the first dried coffee blend to form the soluble coffee beverage.

2. The method of claim **1**, wherein the dairy component comprises milk.

3. The method of claim **1**, wherein the dairy component is in at least one of a liquid form and a dry form.

4. The method of claim **1**, wherein at least a portion of at least one of the extracted coffee product, the first pulverized coffee product, the first coffee blend and the first dried coffee blend is encapsulated by the dairy component.

5. The method of claim **4**, wherein the encapsulation comprises at least one of spray-drying, coating, extrusion, coacervation and molecular inclusion.

6. The method of claim **1**, wherein grinding coffee beans includes pulverizing coffee beans.

7. The method of claim **1**, wherein the pulverized coffee component has a mean particle size of about 350 microns or less.

8. The method of claim **1**, wherein the pulverized coffee component has a median particle size of about 350 microns or less.

9. The method of claim **1**, further comprising adding to the soluble coffee beverage at least one of a coffee oil, a non-coffee oil, a non-coffee aroma, a coffee aroma, a coffee component, nutritional supplements, flavoring components, herbal components, coffee extracts, concentrated coffee, dried coffee, distillates, flavor powders, flavor oils, spices, ground or pulverized cocoa beans, ground or pulverized vanilla beans, vitamins, antioxidants, nutraceuticals, dietary fiber, an omega-3 oil, an omega-6 oil, an omega-9 oil, a flavonoid, lycopene, selenium, a beta-carotene, resveratrol, a vegetable extract, a dry green coffee extract, a wet green coffee extract and an herbal extract.

10. A method of making a soluble coffee beverage comprising:

grinding coffee beans to form a first ground coffee product;

grinding coffee beans to form a second ground coffee product;

pulverizing coffee beans to form a first pulverized coffee product;

extracting the first ground coffee product and separating the first ground coffee product into a coffee flavor component and a coffee aroma component;

extracting the second ground coffee product to form a first extracted coffee product and spent coffee grounds;

combining the coffee aroma component with the first extracted coffee product to form a first coffee blend;

combining the first coffee blend with a first portion of the first pulverized coffee product to form a second coffee blend;

drying the second coffee blend to form a first dried coffee blend; and

combining a dairy component, a second portion of the first pulverized coffee product and the first dried coffee blend to form the soluble coffee beverage.

11. The method of claim **10**, wherein the dairy component comprises milk.

12. The method of claim **10**, wherein the dairy component is in at least one of a liquid form and a dry form.

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