



### *Biscottini di Prato*

Pellegrino Artusi in his famous Italian cookbook *The Art of Eating Well*, originally published in 1891, lists the following ingredients for *Biscottini di Prato* (translated by Kyle M Phillips III):

5 eggs  
5 ½ cups flour  
2 cups confectioner's sugar  
¼ cup blanched, peeled almonds  
2 tablespoons butter  
½ teaspoon ground anise

A pinch of salt  
1 scant cup whole almonds chopped, with a few pine nuts (in all, 5 ounces almonds and 2 tablespoons pine nuts)

My goal was to take one fifth of this recipe, make it up with 100% whole wheat flour, leaven with sourdough and do without the sugar. My first attempt was to use these ingredients, omitting the sugar and making up the whole wheat flour as a stiff sourdough; the result was a pleasing light colored savory almond rusk. However, biscotti in my experience are generally very sweet. So my next effort was to follow Artusi's instructions, which were to mix everything together, shape the dough into a half inch deep rectangle, paint it with egg yolk and bake it, then when cool slice it and bake the slices, with just one change. The one change made was to replace the sugar with a paste made from soaked raisins. The result was slices of flavorful and sweet unleavened dark brown fudge that took a very long time to dry to a crisp, so much so that I kept them as dense fudge. You'll notice that no leavening is included in the ingredient list. The difficulty in drying to a crisp was due no doubt to the very strong attraction that the raisin paste has to water as a result of its high fiber content, compared with refined sugar.

The following recipe for (24 *biscottini*, little cookies) was developed from these experiences and illustrates how a recipe can be changed to use sourdough fermented 100% whole wheat flour instead of refined flour and naturally sweet dried fruit to replace refined sugar. The product becomes something new and with its own character, although still closely related to the refined flour / refined sugar version, in flavor and form.

The basic dough can be changed into a variety of flavored biscotti depending on the additions made, after the dough has matured. First we have the classic mixture of almonds, pine nuts and anise seed, with the substitution of raisin paste for confectioner's sugar.

<i>Ingredients for dough</i>	<i>Bakers per cent</i>	<i>Grams</i>
Whole soft wheat flour, finely milled	100	100
Enzyme active malt with Vitamin C*	1	1
Olive oil	10	10
Salt	1	1
Water	55 (or amount to produce medium stiff dough)	55 (or amount to produce medium stiff dough)
Sourdough starter*	10	10

\* Recipes can be found at [www.wholegrainconnection.org](http://www.wholegrainconnection.org)

[] Weigh out flour and enzyme active malt into a mixing bowl and mix. Add olive oil and work it into flour using a fork or by rubbing between the fingers.

[] Separately, weigh salt and water and add to a measuring jug or small bowl. Stir to dissolve the salt. Add sourdough and stir well.

[] Add mix of salty water and sourdough to the flour and oil mixture. Stir and mix until everything is evenly incorporated.

[] Press the dough into a measuring jug or bowl, note the volume. Enclose the jug in a plastic sheet or bag. Allow to rise to double volume. (4-5 hours at 90°F; 6-8 hours at 72°F; 10-12 hours at 65°F. Timing can be consistent only if starting with dough at the chosen temperature. Allow the longer time when starting with cold ingredients and utensils.)

[] Prepare biscotti filling immediately after preparing the dough, so that the dry fruit and nuts will have time to hydrate.

<i>Ingredients for filling</i>	<i>Bakers per cent</i>	<i>Grams</i>
Raisins	65	65
Almonds	50	50
Pine Nuts	10	10
Anise Seeds	1-2	1-2
Water	63	63
Almonds	25	25
Water	13	13
Egg (lightly beaten)	50 (1 egg)	50 (1 egg)
Egg (lightly beaten)	25 (½ egg)	25 (½ egg)

[] Weigh raisins, the first portion of almonds, pine nuts and anise seeds into a bowl followed by water. Stir well to completely wet the fruit and nuts. Separately weigh the second portion of almonds into another bowl and add the water. Stir to completely wet

the almonds. Cover both bowls and leave the fruit and nuts to soak for as long as it takes for the dough to rise to double.

[] In a food processor, grind together the mixture of raisins, almonds, pine nuts and anise seed, until it becomes a paste.

[] Add the beaten egg and process until blended with fruit and nuts.

[] Add the dough and process briefly to blend everything together.

[] Add the separately soaked almonds and process briefly to coarsely chop the almonds and complete the blending of the dough.

[] On a sheet of parchment paper, spread the dough into a rectangle approximately  $\frac{3}{4}$  inch thick, 4 inches wide and about 9 inches long. Shape and spread using a silicone or plastic spatula.

[] Lightly cover with a plastic sheet and allow to rise at warm room temperature for 30 - 60 minutes.

[] Just before baking, paint the top with beaten egg.

[] Preheat oven and pizza stone or tiles at 450°F. Bake on parchment paper, on pizza stone or oven tiles at 350°F for 20 -30 minutes.

[] When cooled to room temperature, slice into 24 or more slices. Dry the slices at 140°F in a food dehydrator for approximately 3 hours, or according to taste. (e.g. *Nesco / American Harvest, with adjustable temperature settings.*)

#### *Filling variations*

- Butter as an alternative to olive oil
- Hazelnuts or walnuts as an alternative to almonds
- Mixed spices or single spice as alternative to anise seed
- Orange or cherries with chocolate

#### *Almond Spice*

<i>Ingredients for filling</i>	<i>Bakers per cent</i>	<i>Grams</i>
Raisins	65	65
Almonds	50	50
Pine Nuts	10	10
Water	63	63
Almonds	25	25
Water	13	13
Spice mixture ( <i>Ceylon cinnamon, nutmeg, allspice, orange and lemon zest</i> )	1-2	1-2
Egg (lightly beaten)	50 (1 egg)	50 (1 egg)
Egg (lightly beaten)	25 ( $\frac{1}{2}$ egg)	25 ( $\frac{1}{2}$ egg)

### *Cherry Chocolate & Almond*

<i>Ingredients for filling</i>	<i>Bakers per cent</i>	<i>Grams</i>
Raisins	65	65
Almonds	50	50
Dried cherries	10	10
Water	63	63
Dried cherries	25	25
Water	13	13
Cocoa powder	25	25
Egg ( lightly beaten)	50 (1 egg)	50 (1 egg)
Egg (lightly beaten)	25 (½ egg)	25

### *Orange Chocolate*

<i>Ingredients for filling</i>	<i>Bakers per cent</i>	<i>Grams</i>
Raisins	65	65
Almonds	50	50
Water	63	63
Almonds	25	25
Water	13	13
Cocoa powder	25	25
Orange zest	1	1
Egg (lightly beaten)	50 (1 egg)	50 (1 egg)
Egg (lightly beaten)	25 (½ egg)	25 (½ egg)

### *Almond Chocolate*

<i>Ingredients for filling</i>	<i>Bakers per cent</i>	<i>Grams</i>
Raisins	65	65
Almonds	50	50
Water	63	63
Almonds	25	25
Water	13	13
Cocoa powder	25	25
Egg ( lightly beaten)	50 (1 egg)	50 (1 egg)
Egg (lightly beaten)	23 (½ egg)	25 (½ egg)