

## recipe redux

# Gluten-Free Lace Cookies

By Erika A. Thornton and Rachel Zemser, CCS

**M**any baked goods found in gourmet markets today cater to individuals with special dietary needs, and the demand for gluten-free and/or dairy-free items is growing every year. Classic baked items can be transformed to fit niche industry needs, but it does take some trial, error and R&D to ensure final functionality.

Lace cookies were given their name because of the unique way they transform into crisp rounds with lace-like open spaces during baking. While the traditional version has brown sugar, corn syrup, butter, flour and almonds, the cookie can be successfully developed using alternative fats, starches and nuts. This allows gluten-sensitive consumers to have a version tailored to fit their dietary restrictions.

Our gold standard lace cookie recipe, developed by Erika—who also led the conversion from gold standard to plant-ready formula—is both gluten- and dairy-free. By replacing the corn syrup with brown rice syrup, we were able to make the product organic, non-GMO and all-natural. While organic corn syrup is available, natural-food consumers generally prefer to see brown rice syrup on the label. A combination of defatted peanut and sorghum flours eliminated gluten. Peanut flour is high in fat, protein and fiber, and is very hydroscopic. When used on its own, it absorbs too much moisture, resisting proper spread. A blend of low-fat (12%) peanut flour with the sorghum flour reduces moisture absorption, allowing the cookie to spread as needed. A light to medium roasted flour works well in this application, imparting a pleasant peanut flavor. Sorghum flour is bland and does not contribute to the overall flavor profile. Traditional lace cookies also use a substantial amount of butter. To eliminate dairy, a nonhydrogenated palm oil, which has a fat composition that mimics the functional properties of butter, was used. The addition of lecithin ensured even blending and helped control greasiness by preventing oil from migrating to the surface. We used a non-GMO, allergen-free, sunflower-derived version. While any crushed nut can be used, peanuts were chosen because they match the flavor of the peanut flour.

All of the ingredients used to make the gold standard are available industrially, although some substitutions were necessary for the scaled-up version to reduce cost and simplify manufacturing. The gold standard uses dried blueberries, which can be expensive. To maximize flavor while still maintaining piece identity and nutritional value, a combination of drum-dried blueberry flakes and ¼-in. freeze-dried bits helped reduce costs and improve depositing and finished-product consistency. Also, brownulated sugar replaces brown for ease of use in the plant. After melting, real dark chocolate must be carefully tempered in small batches, or with tempering equipment. An alternative, less-expensive option was to use a high-quality dark-chocolate-flavored, nonhydrogenated compound coating. Lace cookies are high in fat and are subject to oxidative rancidity. Adding natural, fat-soluble antioxidants extends shelf life without contributing any flavor. ●



Photo: Erika A. Thornton

### Recipe:

#### Ingredients

- 1/3 cup diced, dry-roasted peanuts
- 3 tablespoons dried blueberries
- 1/4 cup nonhydrogenated, trans-free palm oil
- 1/4 cup brown rice syrup
- 1/2 cup light brown sugar
- 1/2 teaspoon lecithin
- 1/4 cup plus 1 tablespoon sorghum flour
- 2 tablespoons peanut flour
- 1/2 teaspoon salt
- 5 oz. dark chocolate

**Procedure:** Grind the dry-roasted peanuts in a food processor into small granules. Grind the dried blueberries separately until they form a paste. In a small pan, combine the palm oil, brown rice syrup, brown sugar, blueberries and lecithin and melt on low to medium heat. Stirring constantly, continue to cook until the temperature reaches 250°F and reaches the firm ball stage. Remove the mixture from the stove, add the remaining dry ingredients and mix well. Drop scant teaspoons of batter onto an oiled or parchment-lined cookie sheet. The cookies will spread to twice their diameter, so space accordingly. Bake at 350°F for 8 to 10 minutes. When ready, the cookies will be thin, bubbly and golden-brown. Allow to cool in pan for 2 minutes, then transfer to racks and cool completely. Dip in melted and tempered chocolate, or drizzle chocolate on top of cookies with a pastry bag. Cool in the refrigerator, then store at room temperature in an airtight container.

### Formula:

Ingredients	% by Weight
Brown rice syrup, 60 DE, 80° Brix	28.16
Brownulated sugar, light	25.12
Palm-oil, zero-trans	13.48
Sorghum flour	12.94
Peanuts, dry-roasted, granulated	12.38
Peanut flour, defatted (12%), light-roast	3.28
Blueberry flakes, drum-dried, 16-mesh	2.69
Blueberries, freeze-dried, ¼-in. granules	1.00
Salt, fine	0.45
Lecithin, liquid, sunflower-based, allergen-free	0.40
Mixed tocopherols	0.10

**Total:** 100.00

### Coating

Chocolate compound	100.00
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**Procedure:** Add brownulated sugar, palm oil, lecithin, brown rice syrup and peanuts to an industrial-sized kettle. Heat the mixture on medium-low until fat and sugar have completely melted. Continue to cook with agitation until the product reaches 250°F. Add the blueberry flakes and cook for one minute with agitation. Remove from heat and add the remaining ingredients, mixing until no dry clumps remain. Pour the mixture into a steam-jacketed hopper that will keep the dough warm (200°F) and pliable. Empty the hopper into a wire-cut depositor and drop 3-in.-diameter scoops (30 grams) onto an oven band or baking sheets. Bake for 7 to 10 minutes, depending on oven type. In humid environments, the cookie will require longer baking to achieve a final proper crisp, clean-break texture when cooled. Cool in ambient air via tunnel, spiral belt or on racks. Use an enrobing machine to drizzle or cover cookies with compound chocolate coating. The coating can be anywhere from 5% to 15% of the total cookie weight, depending on preferences. Use a cooling tunnel to evenly set chocolate compound coating. The finished product is fragile and should be hand-packed into plastic trays. A thick-gauge metalized film wrapper can protect the cookie from moisture and oxidation, prolonging shelf life.