

South Florida Tropicals: Coconut¹

Amy Simonne, Linda B. Bobroff, Anne Cooper, Sandra Poirier, Mildred Murphy, Mary Jo Oswald, and Chris Procise²



Background

The coconut (*Cocos nucifera*) is the seed of a coconut palm tree. Thought to be native to the Indo-Pacific area of the tropics, coconuts are grown throughout the tropical world. The coconut is a *drupe*, composed of a fibrous husk (green when young, brown when mature) surrounding a hard stony shell. Enclosed within the shell is a white fleshy layer

called the *meat*. Immature (young) fruit contain liquid, and the meat, if developed, is soft and jelly-like. Mature fruit have hardened meat and less liquid.

Availability

Fresh coconuts are available year round, with peak supplies from September to January.

Selection

Coconuts are sold both in the husk (tan or green-colored thick outer shell) or removed from the husk, with a fibrous dark brown shell. When buying a coconut without the heavy husk, be sure that the shell and its three eyes or soft spots are dry, not moldy or wet. Either form of coconut should feel heavy. When selecting a mature coconut, be sure that you hear the liquid sloshing inside when you shake the fruit. You will not hear the liquid in a young coconut.

Storage

Unopened coconuts store well in the refrigerator for several weeks. Firm coconut meat will keep in an airtight

1. This document is Fact Sheet FCS 8525, one of a series of the Department of Family, Youth and Community Sciences, UF/IFAS Extension. Publication date July 2004. First published as SS-HEC-15, May 1993. Revised August 2007. Reviewed November 2010 and November 2013. Please visit the EDIS website at <http://edis.ifas.ufl.edu>.
2. Written by Anne Cooper, former Family and Consumer Sciences Extension agent in Dade County; Sandra Poirier, former Family and Consumer Sciences Extension agent in Broward County; Mildred Murphy, former county nutritionist in Lee County and Mary Jo Oswald, former Family and Consumer Sciences Extension agent in Palm Beach County; revised by Dr. Amy Simonne, professor, Food Safety and Quality and Dr. Linda B. Bobroff, professor, Foods and Nutrition; and reviewed by Jennifer Hillan, former nutrition educator, Department of Family, Youth and Community Sciences, UF/IFAS Extension, Gainesville FL 32611. Project advisors were: Dr. Doris A. Tichenor, former director, Department of Family, Youth and Community Sciences; Dr. Linda Bobroff, professor, Foods and Nutrition, Department of Family, Youth and Community Sciences; Dr. Mark Tamplin, former associate professor, Food Safety, Department of Family, Youth and Community Sciences; and Dr. Jonathan Crane, assistant professor, IFAS Tropical Research and Education Center. Anne Cooper was project coordinator and Chris Procise, Family and Consumer Sciences Extension agent in Martin County, provided the graphics and original layout.

container in the refrigerator for up to 10 days, or may be frozen for 8 to 12 months. Freshly grated coconut will keep for 3 to 4 days in the refrigerator. Soft coconut meat and milk should be refrigerated and used within a day.

Uses

Coconut, in its various forms, is used in many desserts, fruit salads, and main dishes. Coconut can be used when fresh, dried, canned, or frozen.

Nutritive Value

The nutritive value of the coconut varies according to its stage of development. The mature coconut is a fairly good source of iron; however, most people do not consume enough to make it an important source of this mineral. Approximately 86% of the calories in coconut are from fat, most of which is saturated fat. One cup of raw, unsweetened, shredded coconut contains:

- 280 calories
- 2.7 grams protein
- 27 grams total fat
- 24 grams saturated fat
- 12 grams carbohydrate
- 7 grams dietary fiber
- 2 milligrams iron
- 21 mcg folate

Source: USDA NDB Number: 12104

See Table 1 for comparisons of fat, saturated fat, and calcium content between coconut and cow's milk. **NOTE:** In the table, coconut liquid refers to the liquid from the coconut; coconut *milk* refers to a liquid mixture of grated coconut meat and water. The values in the table are for 1 cup servings.

Table 1.

	Saturated Fat (g)	Total Fat (g)	Calcium (mg)
Coconut liquid	0.4	0.5	57
Coconut milk	51	57	38
Whole milk (cow's)	5	8	290
1% milk (cows)	1.6	2.6	300
Dried, Shredded	29	33	14
Raw, Shredded	24	27	11

Yield

One-half pound of coconut yields approximately 3 cups when grated.

Basic Preparation

- To remove the coconut meat from the shell, pierce one or more of the eyes with an ice pick. To reserve the liquid, drain the coconut liquid through a fine-mesh sieve
- Place the coconut in a 350°F oven for 15 to 20 minutes; remove from the oven. Firmly tap the coconut with a hammer to crack open the shell. Continue tapping the shell until it is cracked in several places. Remove as much of the shell as possible this way.
- Remove the meat by inserting a sharp knife between the meat and shell or score the flesh and lift from the edge.
- Remove the brown tissue adhering to the meat prior to grating to maintain a snow white color. The easiest way to remove the tissue is with a knife or vegetable peeler while still warm.

Food Safety During Preparation

Following these steps will help reduce your risk of food-borne illness.

- Wash your hands with hot soapy water before and after:
 - handling fresh produce
 - handling raw meat, poultry, or seafood
 - using the bathroom
 - changing diapers
 - handling pets
- Rinse the outer shell of the coconut with cool tap water just before preparing or eating. **Don't use soap or detergents.**
- Wash cutting boards, dishes, utensils, and counter tops often. Use hot soapy water and rinse well. **Sanitize** them after contact with fresh produce, or raw meat, poultry, or seafood.

Table 2.

To Sanitize
• Mix one teaspoon of unscented chlorine bleach in one quart of water.
• Pour the mixture onto the surface and let sit at least one minute.
• Rinse well with hot running water.

- Don't cross contaminate. Use clean cutting boards and utensils for fresh produce. If you can, use a separate cutting board for raw meat, poultry, and seafood.

- Do not consume ice that has come in contact with fresh produce or other raw products.
- Use a cooler with ice or gel packs when taking perishable food outdoors. This includes cut fresh fruits and vegetables.

Freezing

- Peel and wash whole pieces of coconut. If desired, sprinkle lightly with sugar (approximately 1 tablespoon per 4 cups coconut), and pack into moisture-vapor-proof sealed packages. Freeze at 0°F. Glass canning jars can also be used. Be sure to label and date.
- For every 2 cups of grated coconut, add 2 tablespoons of sugar. Mix well, and pack into freezer containers or freezer bags.
- Coconut may be frozen 8 to 12 months.

Using Coconuts

Tropicals may vary in natural pectin, acid and sugar content from one season to another due to the variations of the climate.

Ambrosia

Oranges
Fresh grated coconut
Sugar
Coconut milk

Arrange generous layers of orange pulp, grated coconut, and a light sprinkling of sugar. Moisten with coconut milk. Chill for several hours before serving.

While the simplest Ambrosia is generally the most favored, for variety add diced pineapple, sliced bananas, seeded grapes, or other fruits.

Coconut Milk

Drain a coconut, reserve the liquid, and prepare as directed under Basic Preparation. Measure the reserved liquid and add enough water to make 1 cup. Allow 1 cup of liquid for each cup of grated coconut. Place equal portions of grated coconut and liquid in a saucepan; heat the mixture to a boil (212°F.), then remove from heat and cool. Strain through a fine-mesh sieve or through 2 thicknesses of cheesecloth. About ½ pound of coconut yields 3 cups grated coconut which will produce 3 cups coconut milk.

Toasted Coconut

Slice or grate coconut meat very thinly; spread in a shallow pan. Place in a 200°F oven for 2 hours, stirring occasionally

(do not let coconut become too brown). If coconut is not dry, reduce the temperature for additional baking. Remove from oven, cool, and store in airtight containers.

Crusty Coconut-Almond Fish

6 (3 oz.) fish fillets
2 egg whites or ¼ cup egg substitute
1 tablespoon water
1 cup shredded, unsweetened coconut
¾ cup toasted, chopped almonds
2 tablespoons olive or other vegetable oil

• Sauce:

½ cup plain low-fat yogurt
2 tablespoons lemon or lime juice
1 tablespoon chopped parsley

Preheat oven to 425°F. Place fish fillets on waxed paper. In a shallow bowl, stir together egg and water. In a second bowl, stir together coconut and almonds. Brush fish lightly with oil, dip in egg mixture, then roll in coconut-almond mixture until well coated. Place in a baking pan and bake 15 minutes or until fish flakes easily when tested with a fork. Mix together the 3 sauce ingredients and drizzle over the cooked fish. Makes 6 servings.

Approximate nutrient value per serving: 290 calories, 23 grams protein, 19 grams fat, 8 grams carbohydrates, 35 milligrams cholesterol, 3 grams fiber, 105 milligrams calcium. (Variation: use boneless, skinless chicken breasts instead of fish.) *Adapted and reprinted from: *International Produce Cookbook and Guide*, by Marlene Brown, © 1989, with permission from Price Stern Sloan, Inc., Los Angeles.