

SORGHUM

**Ingredient
of the Month**

Presented by ACFEF Chef & Child Foundation
and Clemson University



Sorghum bicolor, commonly referred to as “sorghum,” is a grass grown for its use as an edible grain. It originated primarily in northern Africa. This cereal grass has broad, corn-like leaves and huge clusters of cereal grain at the end of tall, pithy stalks. The U.S. is the No. 1 exporter of sorghum and is the second largest producer in the world. Though it is said to be the third most important cereal crop grown in the U.S., it is primarily used as a feed grain for livestock.

In terms of human consumption, sorghum can be made into flour and syrup, similar to molasses. Sorghum is a powerhouse of nutrition, rich in antioxidants and a good source of fiber and protein. The flour is also gluten-free, which makes it a valuable commodity in baked goods for people allergic to wheat.

Healthy ingredient contribution

FIBER: Sorghum flour is a good source of fiber, which helps add bulk to contents of the intestinal tract and creates satiety. Fiber is a carbohydrate, but it has fewer calories than sugars and starches.

IRON: Sorghum flour provides iron, which is important for transporting oxygen through the body. Iron is also involved in enzyme functions. The recommended iron intake for adults is 18 mg per day for females and 8.8 mg per day for males. Sorghum contains 8.5 mg/cup and 4.4 mg/100 grams.

PROTEIN: Sorghum flour is a good source of protein. Proteins are more complex compounds than carbohydrates and fat and, therefore, are better fuel sources. Proteins are needed for virtually every bodily function, including water regulation, muscle function and immunity.

ANTIOXIDANTS: According to the *Journal of Medicinal Food*, a research team from The University of Georgia, Athens, Ga., has found that bran from a few varieties of commonly grown sorghum has greater antioxidant and anti-inflammatory properties than well-known fruits such as blueberries and pomegranates.

Varieties and uses

- **Sorghum flour** is often mixed with wheat flour and is used for making cakes, cookies and breads. More recently, sorghum has been used to make cereals and breads for commercial use for people with a gluten-free diet. For this purpose, flour is usually mixed with other gluten-free flours instead of wheat flour.
- **White sorghum flour** is made from white food grade sorghum that has had the hull removed and milled like traditional flours. This flour has the size, texture and color of common white-wheat flour and is said to have a nutty flavor. It can be used in a variety of baking applications in conjunction with other flours.
- **Whole-grain sorghum flour** is whole-grain flour that has been milled with the entire grain, without the hull removed. Whole-grain flours contain all of the nutrition found in the outer casing of the grain.
- **Sorghum syrup** is a natural sweetener that comes from juice squeezed from the stalks of certain sorghum varieties. It has a rich, dark color and consistency similar to molasses, but with a milder taste. It is often used as a table syrup and to sweeten and flavor baked goods.
- **Whole-grain sorghum** is good for creating great-tasting, healthful dishes. It can be used in place of rice. It is a great addition to vegetable salads or in cooked dishes such as tabbouleh. Whole-grain sorghum resembles bulgar or wheat berries and has a hearty, chewy bite.

Storage

Sorghum should be stored in a moisture- and vapor-proof, air-tight glass or metal container or plastic freezer bag. If it will be used within a few months, keep in a cool, dry, dark place. Keep in a refrigerator or freezer for longer storage.

Serving size

100 grams or 1/2 cup of sorghum flour provides:

- 3 grams fat
- 7 grams fiber
- 8 grams protein
- 17% daily value of iron

Contributions to this article were made by Andrea Musselwhite.

RECIPE

GLUTEN-FREE CHOCOLATE CHIP BANANA MUFFINS

Yield: 12 muffins

Ingredients:

3/4 cup sweet sorghum flour	3/4 cup granulated sugar
3/4 cup brown rice flour	1/4 cup unsweetened
1 t. baking soda	applesauce
1/2 t. xanthan gum	1 large egg , beaten
1/4 t. guar gum	1 t. vanilla
1/4 t. salt	1/2 cup semisweet
2 large ripe bananas , mashed	chocolate chips
1/4 cup vegetable oil	

Method:

Preheat oven to 350°F. Coat standard 12-count muffin tin with cooking spray. In mixing bowl, combine sorghum flour, brown rice flour, baking soda, xanthan gum, guar gum and salt. In separate bowl, cream together bananas and oil. Add sugar, applesauce, egg and vanilla; mix well. Add flour mixture to banana mixture in three parts, stirring well after each addition; fold in chocolate chips. Pour mixture into prepared muffin tin. Bake for 20-25 minutes,



or until toothpick inserted into center of muffin comes out clean. Cool on rack.

Nutrition Information

Calories: 230	Fiber: 2g	Calcium: 0%
Fat: 8g	Protein: 3g	Iron: 4%
Sat. Fat: 2.5g	Vitamin A: 0%	
Carbs: 38g	Vitamin C: 4%	

This recipe was tested by Clemson University's Culinary Nutrition Undergraduate Student Research Group.