

INGREDIENT OF THE MONTH *Presented by ACF Chef & Child Foundation and Clemson University*

FLAXSEED

March 2010



Unless you and your customers normally eat dark flesh fish such as salmon 2 to 3 times a week, you are probably not getting enough omega-3's according to the American Heart Association's recommendations. 70% of Americans are deficient in omega-3-fatty acids according to the U.S. 2005 Dietary Guidelines Advisory Committee report. In order to help your customer increase this important ingredient consider incorporating a tablespoon of ground flaxseed into a dish for everyone to enjoy.

This small brown seed with a mild nutty flavor is often used in baking formulas for texture, as a crunchy topping for a variety of dishes, or within savory recipes and has been deemed a healthful ingredient for centuries. According to the Flax Council of Canada, flaxseed was first cultivated in Babylon as early as 3000 BC. By the 8th century, King Charlemagne believed so strongly in the health benefits of flaxseed that he passed laws requiring people to consume it. Only now, 13 centuries later, are we beginning to gather preliminary research to support Charlemagne's beliefs all those years ago. While studies show some evidence that it can help reduce your risk of heart disease, cancer, stroke, and diabetes, studies of the direct effects of giving flaxseed to people are lacking. However, research does support that a spoonful or two of flaxseed a day is a good idea.

Flaxseed Healthy Ingredient Contribution

- Omega-3 fatty acids- "good" fats that have been shown to have heart-healthy effects, such as helping to control cholesterol and reduce blood pressure. Each tablespoon of ground flaxseed contains almost 2 grams of omega-3s.
- Lignans- phytoestrogens that have both plant

estrogen and antioxidant qualities. These compounds have been shown in laboratory studies of animals to help protect against certain kinds of cancer, especially cancers of the breast and colon, by blocking tumor formation.

- Fiber- Soluble fiber can lower blood cholesterol levels while insoluble fiber moves stool through the colon more quickly, helping bowel movements. Flaxseed contains both the soluble and insoluble types.
- Essential nutrients (calcium, iron, niacin, phosphorus, and vitamin E)

Varieties and Uses

- Milled flax is sold in a vacuum package, or you can prepare it yourself in a coffee grinder by grinding the whole seeds to create a light-colored powder. Then sprinkle milled flax into doughs and batters or onto casseroles, yogurt and hot/cold cereals.
- Flaxseed oil is extracted from whole flax seeds, using a cold-press process. You can pour flax oil over fresh salads. It does provide omega-3's but not fiber or lignans.
- Whole flax seeds add color and crunch to foods. You can sprinkle them on top of baked goods or mix them into dough. However, to obtain the benefits from flax, you should first grind the seeds because whole seeds will pass through your system undigested.

WARNING: Flaxseed contains compounds that may interfere with vitamin or mineral absorption; thus, high daily intakes could cause nutrient deficiency diseases. Flaxseed may also have a laxative effect when consumed in excessive quantities.

FLAXSEED

INGREDIENT OF THE MONTH • March 2010



Chew on this

Today, flaxseed is found in all sorts of foods and food products. For instance, you can find omega-3 enriched foods, such as yogurt and milk, which may contain flax oil, while flax baked goods, such as breads, contain milled or whole flax. Also, you can use omega-3 enriched eggs, which contain extra omega-3 fatty acids from flaxseed that has been fed to hens. There is no taste difference, only nutrition enrichment. Depending on the dish, adding ground flaxseed may or may not make a difference in taste although most people enjoy the mild nutty flavor. Meanwhile, the health benefits far outweigh the flavor alteration of the dish. Try out different recipes to see if you can manipulate these nutritious seeds into an enriching dish for your customers. Here's a prime example of a recipe that fulfills the omega-3 recommendation, allotting a tablespoon per serving, without sacrificing the taste of the dish.

Substitutions

- 3 tablespoons of milled flax can replace 1 tablespoon of butter, margarine, shortening or vegetable oil.
- 1 tablespoon milled flax mixed with 3 tablespoons water in a small bowl and allowed to sit for one to two minutes can replace

an egg in a recipe. While this gelatinous mixture can be used in place of eggs to add body to baked goods, unlike eggs, it does not have a leavening effect.

Storage

- Whole flaxseed can be stored at room temperature for up to a year.
- Milled flaxseed can be kept in an airtight, opaque container in the refrigerator for up to 30 days or until an off-odor develops. To keep flax fresh, you should grind it as you need it.

Today, flaxseed is found in all sorts of foods and food products. For instance, you can find omega-3 enriched foods, such as yogurt and milk, which may contain flax oil, while flax baked goods, such as breads, contain milled or whole flax. Also, you can use omega-3 enriched eggs, which contain extra omega-3 fatty acids from flaxseed that has been fed to hens. There is no taste difference, only nutrition enrichment.

Serving size: 1 teaspoon (5 grams) of flax oil or 1 tablespoon (8 grams) of milled flax daily provides enough omega-3's to meet dietary needs.

INGREDIENT OF THE MONTH

March 2010

Flax Seed Meatloaf

Yield: 8 servings
(serving size: 1 slice)

Recipe courtesy of the Flax Council of Canada. For More Information, visit the Flax Council of Canada at <http://www.flaxcouncil.ca/>.

2 pounds lean ground beef
1 cup skim milk
½ cup ground flaxseed
½ cup dry bread crumbs
½ cup chopped onion
1 egg, beaten
1 tablespoon Worcestershire sauce
1 teaspoon black pepper
1 teaspoon garlic powder
1 teaspoon dry mustard
½ teaspoon celery salt or salt
¼ teaspoon thyme
¼ cup ketchup

1. In a large bowl, combine beef, milk, ground flax, crumbs, onion, egg, Worcestershire sauce, pepper, garlic, mustard, celery salt and thyme. Mix well.
2. Pat mixture into a 22 x 13 x 8 cm (9 x 5 x 3 inch) loaf pan.
3. Spread ketchup over top of loaf.
4. Bake at 350°F 1 to 1 ½ hours, until no pink remains.
5. Remove from oven and let stand 5 minutes.
6. Remove from pan, place on platter to serve.

Nutrition Information

Calories: 375 **Fat:** 22g **Sat Fat:** 7g
Carbs: 16g **Fiber:** 3g **Protein:** 28g

