Knowledge @ Noon

"Fabulous Fiber"

Wednesday, September 21, 2016
12:00 - 1:00 p.m.

104 S. Brayman, Paola, KS
Marais des Cygnes Extension District, Paola Office

Instructors: Marais des Cygnes Extension District Master Food Volunteers

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Grains of truth about FIBER

Definition

Fiber is a general term for the indigestible part of plant foods. It provides almost no energy or calories. Grain products, fruits, legumes and vegetables are significant sources of fiber. In contrast, virtually no fiber is present in dairy products, meat, poultry, fish, fats and sweeteners. Cooking may slightly decrease the fiber content; freezing, canning and other preservation methods have little effect.

There are two types of dietary fiber: soluble and insoluble.

Insoluble fiber

Insoluble fiber is found in foods such as wheat bran, other whole grains and vegetables.

■ Wheat bran fiber may effectively reduce the risk of colon cancer and according to recent research, may help prevent breast cancer.

■ Insoluble fiber aids in weight control if high-fiber foods are substituted for high-fat, high calorie foods. High-fiber foods take longer to chew and provide a feeling of fullness.

■ Insoluble fiber helps prevent constipation, relieve hemorrhoids and prevent diverticular disease by absorbing water and moving intestinal contents more quickly. Generally, the less processed the fiber source, the greater the laxative effect.

■ Insoluble fiber also prevents diarrhea by normalizing the stools.

Soluble fiber

Soluble fiber is found in legumes, various brans (oat, rice, barley and corn), white flour products (white bread, bagels, pasta, etc.) and some fruits and vegetables.

■ It lowers blood cholesterol in some people when eaten as a part of a low-fat diet, thus decreasing the risk for heart disease.

■ It may help control blood sugar in people with diabetes and even reduce their insulin requirement. However, diabetics should follow a high fiber diet only under medical supervision.

Daily consumption

High fiber diets are key to regular bowel movements and are believed to help reduce health risks, including the incidence of certain cancers, obesity and possibly high blood cholesterol.

There is currently no Recommended Dietary Allowance (RDA) for fiber. However, the American Dietetic Association recommends a daily dose of 20 to 35 grams. According to a 1988 U.S. Department of Agriculture Food Consumption Survey, Americans are eating only 12 grams each day.

An adequate amount for a healthy individual can be obtained by following the fourth edition of the "Dietary Guidelines for Americans." To help achieve the recommended amount of fiber, the dietary guidelines recommend two to four servings of fruits, three to five servings of vegetables and six to 11 servings from the bread, cereal, rice and pasta group.

Although rare, too much fiber can be a problem. Calcium, iron, zinc and magnesium are poorly absorbed with excessive fiber consumption.

Adding fiber

■ Eat 6-11 servings each day of bread, cereal, rice and pasta.

■ Choose a variety of fiber-rich foods instead of fiber supplements.

■ Add bran to muffins, pancake batter, casseroles, breakfast cereals and salads.

■ Boost the fiber in cereals with fresh fruit and sprinkle with bran.

■ Choose whole grain baked goods with raisins or other dried fruit.

Fiber finder

Food	One Serving	Fiber Per Serving
Cereals		
All-Bran, 1 oz.	1/3 cup	10.1 grams
Corn Bran, 1 oz.	2/3 cup	5.4 grams
40% Bran Flakes, 1 oz.	3/4 cup	4.0 grams
Shredded Wheat, 1 oz.	2/3 cup	2.8 grams
Wheaties, 1 oz.	1 cup	2.6 grams
Oatmeal, cooked	1/2 cup	2.0 grams
Special K, 1 oz.	1 cup	0.7 grams
Fruits		
Prunes, stewed	1/2 cup	7.0 grams
Apple, with skin	1 (2.75")	2.7 grams
Orange	1 average	2.5 grams
Strawberries	1/2 cup	1.3 grams
Apple Juice	3/4 cup	0.2 grams
Vegetables		
Peas, cooked	1/2 cup	4.4 grams
Potatoes, w/skin	1 medium	3.0 grams
Broccoli, cooked	1/2 cup	2.3 grams
Green Beans, cooked	1/2 cup	2.0 grams
Corn, canned	1/2 cup	1.5 grams
Tomato, fresh	1 medium	1.3 grams
Celery, diced	1/2 cup	1.0 grams
Lettuce, chopped	1 cup	0.7 grams
Legumes		
Kidney Beans, cooked	1/2 cup	6.9 grams
Pork & Beans in Sauce	1/2 cup	6.1 grams
Lentils, cooked	1/2 cup	4.5 grams
Grains		
Bulgur	1/2 cup	4.1 grams
Bran Muffin	1 average	4.0 grams
Whole Wheat Bread	1 slice	2.2 grams
Rice, brown, cooked	1/2 cup	1.8 grams
Couscous	1/2 cup	1.3 grams
Spaghetti	1/2 cup	1.1 grams
White Bread	1 slice	0.6 grams
Rice, polished, cooked	1/2 cup	0.4 grams

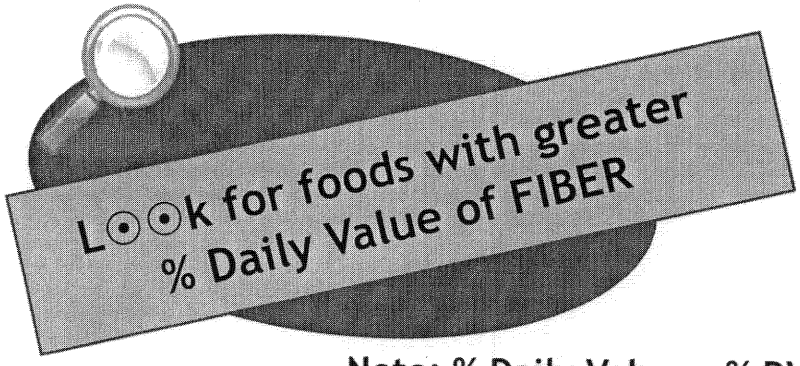
Fiber values from ESHA Corp., "Food Processor II," nutritional analysis software, version 6.04.

■ Foods differ in the amount and type of dietary fiber. Many foods contain a combination of insoluble and soluble fiber. The fiber content of fruits and vegetables varies depending upon the season, growing conditions, ripeness and storage practices.

Wheat Foods Council, 5500 S. Quebec, Suite 111, Englewood, CO 80111. Phone: 303-694-5828. Rev. 2-97

K-STATE Research and Extension

Fiber is another clue to finding WHOLE grains on the "Nutrition Facts" Label!



Note: % Daily Value = % DV

Knowledge for Life

K-STATE Research and Extension

Look for the grain with higher FIBER!

3 g fiber

Nutrition Facts
Serving Size 1 muffin
Servings Per Container 2

Amount Per Serving	
Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate [illegible]	16%
Dietary Fiber 3g	12%
Sugars [illegible]g	
Protein 5g	
Vitamin A 4% • Vitamin C 2%	
Calcium 20% • Iron 4%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
[illegible]at	Less than	20g	25g
[illegible]sterol	Less than	300mg	300mg
[illegible]m	Less than	2,400mg	2,400mg
[illegible] Carbohydrate		300g	375g
[illegible]ary Fiber		25g	30g

A

2 g fiber

Nutrition Facts
Serving Size 1 muffin
Servings Per Container 2

Amount Per Serving	
Calories 250	Calories from Fat 110
	% Daily Value*
Total Fat 12g	18%
Saturated Fat 3g	15%
Trans Fat 0g	
Cholesterol 30mg	10%
Sodium 470mg	20%
Total Carbohydrate [illegible]	10%
Dietary Fiber 2g	8%
Sugars 5g	
Protein 5g	
Vitamin A 4% • Vitamin C 2%	
Calcium 20% • Iron 4%	

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories:	2,000	2,500
[illegible] Fat	Less than	65g	80g
[illegible]at	Less than	20g	25g
[illegible]sterol	Less than	300mg	300mg
[illegible]m	Less than	2,400mg	2,400mg
[illegible] Carbohydrate		300g	375g
[illegible]ry Fiber		25g	30g

B

Knowledge for Life

ANTI-AGING BREAKTHROUGH

Reverse aging with fiber!

Sure, you know fiber is good for you. But do you know just how good? The latest research shows it's an anti-ager that can lengthen your life and turn back the clock on the most dreaded aging complaints, helping to keep your skin, your hair and even your heart in optimal shape , year after year!

Any proof?

A fiber-rich diet won't only make you look and feel younger-new research in the Archives of Internal Medicine proves it actually helps you live longer. Overall, the women in the nine year study who took in the most fiber were 22% less likely to die than those who took in the least. Specifically, the high-fiber eaters were up to 59% less likely to die from infections, heart disease or respiratory illness. In addition, research in The American Journal of Epidemiology concluded that your risk of dying from any cause drops 10% with each daily 10-gram increase in fiber intake. "When we don't consume adequate fiber, our body cannot rid the toxins that build up," which fiber helps wick out, explains dietitian Melissa Rifkin M.S.,R.D., of the Montefiore Medical Center in New York City. "Our bloodstream reabsorbs the toxins leading to inflammation," the root causes of most common age-related diseases-as well as a top contributor to wrinkles, damaged hair follicles and more!

Other benefits?

You may already know that many doctors recommend supplementing with biotin a hair-strengthening B-vitamin, if you have thinning hair. What's less well know is that your body can create plenty of its own biotin if you take in enough fiber to keep your gut's microbiome in balance, so healthy flora can flourish. "The good bacteria in your bowel need fiber to make vitamins like biotin, the hair vitamin," confirms anti-aging expert Lorraine Maita, M.D., author of Vibrance for Life: How to Live Younger and Healthier. Fiber can benefit your skin too, she says , by fighting inflammation which helps prevent (even reverse)everything from acne to rosacea to eczema to visible signs of aging (such as wrinkles and sagging skin). What's more, "a lot of fiber-rich foods, like berries, have many nutrients and antioxidants in them that prevent wrinkling."

How much is enough?

Most of us get far less than the recommended daily amount of 25 grams of fiber. Yet the latest research suggests getting more than 35 grams daily is best for reaping the ant-aging benefits. An easy way to reach that goal? Eat more fiber-filled food, especially oat bran, bulgar, split peas, acorn squash, Brussels sprouts, avocado, raspberries and figs.

Do supplements work?

Yes, Opt for psyllium or ground flax meal to get the most benefit, advises Dr. Maita. Even add it to your cereal. Be sure to drink lots of fluids when taking a fiber supplement.

Kallie E. Kristensen

Women's World-June , 2016

PUMPKIN-LENTIL SOUP Makes: 6 servings

3 cups water
3 cups reduced-sodium chicken broth
2/3 cup dried lentils, rinsed
2 large garlic cloves, minced
1 Tablespoon ground cumin
2 teaspoons dried oregano
1 can (15 oz.) pinto beans, rinsed
1 can (15 oz.) black beans, rinsed
1 can (15 oz.) solid-pack pumpkin
½ cup mild salsa
½ teaspoon salt
5 cups fresh spinach, lightly packed

1. In a 6-quart stockpot, bring first six ingredients to a boil. Cook covered, over medium heat until lentils are tender, 20-25 minutes.
2. Stir in beans, pumpkin, salsa and salt until blended; return to a boil. Reduce heat; simmer, uncovered 20 minutes; stirring occasionally. Stir in spinach; cook until wilted. 3-5 minutes.
Per serving: 244 calories, 1 gram fat, 857 mg sodium, 44 gram carbohydrates (6 gram sugars, 11 grams fiber) 15 gram protein.
Recipe from Taste of Home Magazine, Sept./Oct. 2016

SHREDDED CARROT AND JICAMA SALAD

1 pound jicama, cut into wedges and peeled
4 carrots, trimmed and peeled
3 green onions, thinly sliced
(white and green parts)
¼ cup chopped fresh cilantro
1/3 cup fresh lime juice
3 Tablespoons vegetable oil
½ teaspoon salt
1/8 teaspoon cayenne pepper

Use wide holes of a box grater or food processor to coarsely shred jicama and carrots.
Combine jicama, carrots, green onions and cilantro in a large bowl.
In a small bowl, whisk together the lime juice, oil, salt, and cayenne.
Pour over the salad and toss to blend.
Makes 4 servings:
Per serving: 180 calories, 12gram fat, 350 mg sodium, 18grams carbohydrates,
8 grams fiber, 2 grams protein
Recipe from COMMUNITYTABLE.COM, August 2016

APPLE MAPLE PECAN SALAD Makes: 12 servings

¼ cup lemon juice
¼ cup canola oil
¼ cup maple syrup
1 ½ teaspoons Dijon mustard
½ teaspoons coarsely ground pepper
4 cups shredded cabbage
3 large unpeeled Granny Smith apples, julienned
½ cup crumbled Gorgonzola cheese
1 cup chopped pecan, toasted

Whisk the first five ingredients together until blended. Combine the cabbage, apples and Gorgonzola cheese; toss with dressing to coat. Let stand 30 minutes before serving. Sprinkle with pecans.
Per serving: 169 calories, 13 grams fat, 84 mg sodium, 14 grams carbohydrate (9 grams sugars, 3 gram fiber), 2 grams protein.

DOUBLE CORN BREAD (makes 8 to 10 wedges)

1 cup all-purpose flour
¾ cup cornmeal
2 Tablespoons sugar
2 ½ teaspoons baking powder
3/4 teaspoon salt
1 Tablespoon butter
2 eggs, beaten
1 cup milk
¼ cup cooking oil
½ cup frozen whole kernel corn, thawed

1. Preheat oven to 400 degrees. Stir together flour, cornmeal, sugar, baking powder, and salt in a medium sized bowl.
2. Add the 1 Tablespoon butter to a 10 inch iron skillet or a 9 x 1 1/2 inch round baking pan. Place in oven about 3 minutes or until butter is melted. Remove skillet from oven and swirl butter to cover bottom and sides of pan.
3. Combine eggs, milk, and oil in s small bowl. Add this mixture to flour mixture and stir until moistened. Fold in corn. Pour mixture into hot skillet or pan. Bake 15 to 20 minutes until a wooden toothpick inserted in center comes out clean. Cut into wedges and serve warm.

Per wedge: 227 calories, 11 grams fat, 391 mg sodium ,28 grams carbohydrate, 2 gram fiber, 5 grams protein.

BLUEBERRY CRISP WITH COCONUT TOPPING Makes: 6 servings

5 cups fresh or frozen blueberries
(thaw frozen berries and save juice)
4 Tablespoons granulated sugar
3 Tablespoons all-purpose flour
½ cup rolled oats
½ cup packed brown sugar
¼ cup all-purpose flour
¼ teaspoon ground nutmeg or cinnamon
¼ cup butter or margarine
¼ cup chopped nuts or coconut

1. Preheat oven to 375 degrees. Mix together 4 tablespoons sugar and 3 tablespoons flour. Mix into fruit and place in 2- quart (8 x 8 inch square) baking dish.
2. For topping, in a medium size bowl combine the oats, brown sugar, flour, and cinnamon. Cut in butter until mixture resembles coarse crumbs. Stir in coconut. Sprinkle topping over filling.
3. Bake for 30 to 35 minutes or until fruit is tender and topping is golden. Cool slightly. Serve warm.
Per serving: 319 calories, 13 grams fat, 92 mg sodium, 53 grams carbohydrate, 5 grams fiber, 3 grams protein.
Recipe from: Better Homes and Garden New Cook Book

Moroccan Carrot Salad

¼ cup Lemon juice
1 teaspoon Cumin
1 teaspoon Chili powder
1 teaspoon Salt
1 teaspoon Black pepper
8 cup Carrots, peeled & grated
2 16 oz can chickpeas, drained & rinsed
1 cup Raisins

Whisk together oil, lemon juice, cumin, chili powder, salt & pepper in large bowl. Stir in carrots, peas & raisins. Marinate, covered with plastic wrap, at least two hours at room temperature or up to 3 days chilled.
Per 1 cup serving: 242 cal, 8. 6g fat (1.1g sat), 5.7g pro, 39g carb, 7.6g fiber, 499mg sodium, 0mg chol. *Recipe from Allrecipes.com Sept/Oct 2016*

Kale and Quinoa Salad

In a small saucepan, bring 1 cup low-sodium Chicken broth to a boil. Rinse ½ cup Quinoa, drain and add to saucepan. Cover, reduce heat and simmer 15 min, until broth is absorbed. Set aside in a large bowl.
In a large skillet, heat 2 teaspoons Olive oil
Over med-high. Add 3 cloves minced garlic and stir 1 min.
Add 6 cups chopped kale and ¼ cup water.
Cook 3 to 5 min, stirring occasionally, until kale has wilted and water has evaporated.
Mix kale into quinoa with 1/3 cup toasted sliced almonds, juice from one lemon and
2 Tablespoons grated Parmesan.
Season with sea salt. Serve with a side of frozen red grapes.
Makes 4 servings.
Per serving: 210 cal, 9g fat, 10g pro, 28g carb, 7g fiber, 550mg sodium
Recipe from Familycircle.com Aug. 2016

Pear Stacks with Ham & Cheddar 2 servings total time: 15 minutes

After wowing your guests, topple these stunning stacks on their sideð be sure to sample a bit of everything in each bite.

2 Tablespoons white wine vinegar
1 Tablespoon canola oil
1 teaspoon honey
Salt and black pepper to taste
2 pears, such as Bartlett or Anjou
3 oz. thinly sliced deli ham
3 oz. thinly sliced sharp white Cheddar cheese
1/4 cup micro greens

Whisk together vinegar, oil, and honey for the vinaigrette; season with salt and pepper.
Trim pears on bottom so they sit flat; slice each horizontally into fourths, then core and seed.
Build stacks by layering ham, Cheddar cheese, and micro greens between pear slices. Drizzle vinaigrette over pear stacks and serve immediately.
Per serving: 393 cal; 23g total fat (10g sat); 62mg chol; 736mg sodium; 34g carb; 6g fiber; 18g protein

Bulgur & Beet Salad with Arugula 2 servings Total time: 25 minutes

Cook
1/3 cup dry quick-cooking bulgur

Whisk
3 Tablespoons. fresh lemon juice
2 Tablespoons extra-virgin olive oil
1 Tablespoon honey
Salt and black pepper to taste

Toss
3 cups arugula
1/2 cup fresh beets (such as Chioggia), peeled, thinly sliced, and quartered.
1/3 cup each of chopped walnuts and pecans, toasted
2 oz. honey goat cheese, crumbled

Cook bulgur according to package directions; transfer to a plate in a single layer and freeze 5 minutes.
Whisk together lemon juice, oil, and honey for the vinaigrette; season with salt and pepper.
Toss arugula, beets, walnuts, pecans, bulgur, and goat cheese with vinaigrette.

Per serving: 595 cal; 45g total fat (8g sat); 2o0mg cool; 95mg sodium; 41g carb; 9g fiber; 14g protein

Lentil and Sausage Soup

2 (14 oz.) cans reduced sodium chicken broth
1 ½ cups water
1 cup brown lentils, rinsed and drained
1 cup sliced celery
1 cup sliced carrots
1 medium onion, chopped
½ teaspoon dried thyme
1/8 teaspoon cayenne pepper
2 cloves garlic, minced
8 ounce cooked smoked sausage links, which has been quartered lengthwise and sliced

1. In a large saucepan combine all items except sausage. Bring to boiling; reduce heat. Simmer, covered, for 20 to 25 minutes or until vegetables and lentils are tender.
2. Stir in sausage and heat through.

Nutrition: per 1 ½ cup serving: 294 calories,11 gram fat, 962 mg. sodium, 38 gram carbohydrate, 13 gram fiber, 21 gram protein.

Spaghetti-Lovers Soup

Prep 25 minutes 4 servings

Slow Cook 8 to 10 hours (Low) plus 15 minutes (high) OR 4.5 to 5.5 hours (high)

1 lb lean ground beef
½ cup chopped onion
½ cup chopped green sweet pepper
½ cup chopped celery
½ cup chopped carrot
2 cloves garlic, minced
2 14.5-oz. cans no-salt-added diced tomatoes, undrained
14.5-oz. jar spaghetti sauce
1 cup water
1 Tbsp. quick-cooking tapioca (crushed)
½ tsp. dried Italian seasoning (crushed)
¼ tsp. salt
¼ tsp. black pepper
1/8 tsp. cayenne pepper
2 oz. spaghetti (broken into pieces)
Grated Parmesan cheese

In large skillet, cook first six ingredients (beef through the garlic), over medium heat until meat is browned and vegetables are tender, drain fat.
Transfer meat mixture to a 3 ½ ï to 4-quart slow cooker. Stir next eight ingredients (tomatoes through cayenne pepper)) into meat mixture in cooker.

Cover and cook on low 8 to 10 hours OR on high 4 to 5 hours.

If using low setting, after 4 to give hours, turn to high setting. Stir in spaghetti. Cover and cook 15 to 20 minutes more or until pasta is tender. Sprinkle with Parmesan cheese.

Per 1/5 cup serving: 378 cal., 12 g fat(5 g fat), 74 mg cool, 794 mg sodium, 41 g carb., 8 g. fiber, 20 g pro.

White Bean & Chicken Enchilada Soup
Prep Time: 15 min. Cook Time: 20min. 8 Servings

4 cans(15.5 oz. each) Great Northern Beans, rinsed and drained
3 boneless, skinless chicken breasts (6 oz. each), cubed
½ medium onion, chopped
1 garlic clove, minced
2 cups frozen corn, thawed
1 can (10 3/4 oz.) condensed cream of chicken soup, undiluted
(use reduced sodium condensed cream of chicken soup, to reduce total sodium)
1 carton (32 oz.) reduced sodium chicken broth
1 Tbsp. ground cumin
2 seeded and chopped jalapeño peppers, divided
1 tsp. pepper
2 green onions, chopped
Sour cream, shredded cheddar cheese and tortilla chips

In large stockpot, combine first eight ingredients. Add 1 chopped jalapeño pepper and black pepper. Bring to a boil.
Reduce heat and simmer, covered, until chicken is no longer pink, 15-20 minutes.
Serve with the remaining chopped jalapeño peppers; top with green onions, sour cream, cheese and tortilla chips.
Per serving: 301 cal., 5 g fat (1 g sat. fat), 41 mg cool., 1,121 mg sod., 37 carb. (1 g sugars, 12 g fiber), 25 g pro.

Tomato-Basil Penne with Feta
Active time: 20 min. Total time: 45 min 4 servings

1 (8 oz.) pkg. gluten-free penne pasta
1 medium onion, minced
1/4 cup grated carrots
2 cloves garlic, minced
2 Tbsp. olive oil
8 oz. ground chicken, turkey, or beef
2 (14.5 oz.) cans fire-roasted tomatoes like Hunt's brand
1/4 cup minced fresh basil
1/2 cup crumbled feta cheese

Boil pasta as package directs. In deep skillet over medium heat, cook onions, carrots and garlic in oil 5. Increase heat to medium-high. Add meat; cook 5 min., breaking up with spoon.
Stir in tomatoes and basil. Season to taste. Bring to a boil; reduce heat and let simmer 10 min.

Stir in pasta and feta. Cook 5 min. or until pasta is well-coated with sauce, stirring occasionally.

**** If making ahead, pack in oven-safe dish and refrigerate up to 4 days. Or freeze up to 1 month; thaw in the fridge before reheating. Bake covered at 375 F. for 30 min. or until heated through.

**** This super-tasty pasta combo is a great way to turn half a pound of meat into a hearty budget-friendly dinner for four servings.
Double the recipe and freeze half for another easy meal!

Per Serving: Cal. 617, Pro. 31 g., Carb. 92 g., Fiber 17 g., Sugar. 31 g., Chol. 67 mg., Sod. 409 mg., Total fat: 16 g., Sat. 5 g., Trans. 0 g.

Whole Wheat and Bran Bread

½ cups warm water (110 degrees)
1/4 cup sugar
1 TBSP dry yeast
1/4 cup dry milk
1/2 TBSP salt
1/6 cup canola oil
1 cup whole wheat flour
1 cup whole bran
2 ½ - 3 cups white flour

Mix yeast, water and sugar in mixing bowl and stir until yeast is dissolved. Add oil. Add 1 cup whole wheat flour, 1 cup whole bran, 1 cup white flour, dry milk and salt and mix until light and springy. Add 1 more cup flour and mix 4-5 minutes. Add rest of flour, holding back on the last cup until you see if it is needed. Turn out onto floured surface and knead into a bundle (or knead in Kitchen Aid with dough hook). Place dough in a greased bowl, turning top up and let rise until double in size. Punch down and make into rolls or loaves of bread. Let rise again until double in size.

Bake at 350 degrees approximately 25 minutes for rolls, or until internal temperature of loaf reaches 190-200 degrees.

One recipe makes 2lbs (32oz) of dough ï 2- 1 lb. loves of bread

Serving size: 1slice ï 1 oz. slice of a 1 lb. loaf

Calories: 70, calories from fat: 15

Total fat:1.5g	3 %	Saturated Fat: 0g		Cholesterol: 0 mg	
Sodium: 115mg	5%	Total carbohydrates:	13g4%	Dietary Fiber: 2g	6%
Sugars: 2g		Proteins: 2g			