

Bamboo Fiber Muffins

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Bamboo Fiber

- International Fiber Corporation (IFC)
- Brand Name- JustFiber Bamboo Fiber (BF 200 FCC)
 - 99% Dietary Fiber
 - Insoluble
 - Non Caloric



Control

- Standard Muffin



Experiment #1

- Added Bamboo Fiber
- Increased Milk



Muffin #1

- Dry
- Dense



Experiment #2

- Increased Milk



Muffin #2

- Gummy
- Uneven Texture



Experiment #3

- Decreased Milk
- Increased Oil



Muffin #3

- Bitter Aftertaste
- Dense



Experiment #4

- *Hydrated Fiber



Muffin #4

- Airy
- Tender



Experiment #5

- Increased Baking Powder



Muffin #5

- Airiness
- Increased Tenderness
- Golden Brown



Experiment #6

- Decreased Oil
- Increased Egg
- Incorporated Flourishes



Muffin #6

- Less bitter
- Even texture



Experiment #7

- Decreased Flour/Baking Powder
- Increased Sugar



Muffin #7

- No bitter aftertaste



Experiment #8

- Increased sugar



Muffin #8

- Acceptable Muffin



Control



1



2



3



4



5



6



7



8



Challenges

- Adjusting the muffin recipe to incorporate the bamboo fiber
- Trying to meet the criteria of a Standard (55 gram/2 ounce) muffin
- Control all human variables
- Maintain proper oven temperature
- Time restrictions
- Mistakes in calculations



Recipe

(makes 6 2 ounce muffins)

- ½ cup All Purpose Flour
- 4 tablespoons Sugar
- 1 ½ teaspoon Baking Powder
- ¼ teaspoon Salt
- 2 tablespoons Egg
- 2 tablespoons Canola Oil
- ¼ cup + 2 tablespoons Skim Milk
- Hydrated Bamboo Fiber
 - 2 tablespoons Bamboo Fiber Powder
 - ¼ cup + 3 tablespoons of Skim Milk
- 3 tablespoons Chopped Dried Cherries
- 1 teaspoon Almond Extract



Nutrition Label

High in fiber!



Nutrition Facts

Serving Size (55g)

Servings Per Container

Amount Per Serving

Calories 130

Calories from Fat 40

% Daily Value*

Total Fat 4g

6%

Saturated Fat 0g

0%

Cholesterol 15mg

5%

Sodium 150mg

6%

Total Carbohydrate 25g

8%

Dietary Fiber 5g

20%

Sugars 8g

Protein 3g

Vitamin A 4%

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Vitamin C 0%

Calcium 8%

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Iron 6%

*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
Saturated Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:

Fat 9 • Carbohydrate 4 • Protein 4

Sensory Evaluation of a Bamboo Fiber Muffin

Directions: You are presented with a sample of a high fiber muffin. Please rate each attribute with #1 being unacceptable and #5 being highly acceptable. Please provide comments to explain your answer.

Ingredients: All-purpose flour, skim milk, egg, canola oil, dried cherries, sugar, bamboo fiber, baking powder, Salt, almond extract .

Sensory Attribute	Acceptability					Comments
Color	1	2	3	4	5	
Denseness	1	2	3	4	5	
Aroma	1	2	3	4	5	
Taste	1	2	3	4	5	
Flavor	1	2	3	4	5	
Aftertaste	1	2	3	4	5	
Texture	1	2	3	4	5	
Moistness	1	2	3	4	5	

Would you eat this muffin again?

I would never eat this muffin

I would eat this muffin sometimes

I would eat this muffin often

Comments:

Thank you for your participation!