Let's Eat: Exploring food science

Making Soy Tortilla Chips

Standard Laboratory Operating Procedure #789

Making Soy Tortilla Chips

Laboratory: Science and Technology of Foods   **Location**: Food Science Lab

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Background: With the recent popularity of high protein diets, this tortilla recipe uses soybean flour (or other high protein flours) to re-create this popular snack.

Purpose: To examine sensory characteristics based on the chemical composition of foods. To create a new high protein snack.

Safety: Hot Gloves, goggles

Materials:
     Soy flour
     Gluten-free flour (corn flour, rice flour, potato starch, pea fiber, tapioca starch)
     Plain soy milk
     Water
     Soybean (vegetable) oil
     Plenish™ oil
     Deep fryer

Procedure:

1. Preheat the fryer to 170°C (340°F).
2. Measure out 280 g of flour and sift into a large bowl.
   a. You may use wheat, soy, corn, or gluten-free flours
3. Measure 3 g of salt and add to the large bowl.
4. Measure 3.5 g of baking powder and sift into large bowl.
5. Pour 60 mL of soybean oil into the mixture and combine all ingredients.
6. Add 120-180 mL of warm water or milk until dough formation.
7. Allow dough to sit for 20 minutes.
8. Cut the dough into 8 equal pieces and form into dough balls.
9. Press the dough balls on the tortilla press.
10. Place raw tortilla into the fryer until golden brown.

Sensory Analysis:

Flour type/Recipe	Flavor	Appearance	Smell	Sound

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