Innovating with Microalgae

Presenters:
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Tammy Nash-Jarrett, Univar

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BY UNLOCKING THE POWER OF MICROALGAE

A source of the oldest source of macro and micro nutrients on earth now available to global consumers
INGREDIENT OVERVIEW – WHOLE ALGAL FLOUR

AlgaVia™ Whole Algal Flour
[ reduce fat without compromise ]

- Reduces dairy fats, oil and egg yolks
- Reduces fat, cholesterol and calories
- Incredible mouthfeel, flavor and texture
- Vegan, non-GMO and gluten-free
AlgaVia™ Whole Algal Flour

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[Whole Algal Flour composition]

- Fat 46%
- Protein 9%
- Simple Sugar 1%
- Other Carbohydrates 19%
- Ash/Micronutrients 4%
- Fiber 19% (Soluble/Insoluble)
- Moisture 2%
AlgaVia™ Whole Algal Protein
[a new vegan protein]

- All essential amino acids
- Dietary fiber, healthy lipids and micronutrients (lutein and zeaxanthin)
- Free of known allergens
- Protected in natural cell wall

Beverages  RTM Powders  Cereals  Sauces & Dressings  Snacks  Bakery  Bars
INGREDIENT OVERVIEW – WHOLE ALGAL PROTEIN

AlgaVia™ Whole Algal Protein
[ a new vegan protein ]

- All essential amino acids
- Dietary fiber, healthy lipids and micronutrients (lutein and zeaxanthin)
- Free of known allergens
- Protected in natural cell wall
Challenge: Create a Healthy Indulgent Baked Good

- Same Indulgent Taste without excess fat
- Eliminated Ingredients: Starches, Emulsifiers, Eggs, Soybean Oil, and Artificial Colours

Low Fat Muffin
With AlgaVia™ Lipid Powder

- 50% Total Fat Reduction
- Zero Saturated Fats
- 30% Calorie Reduction
Challenge: Improve Lipid Nutrition & Reduce Ingredients

- French Dressing with Soybean Oil
  - Nutrition Facts
    - Serving Size (30g)
    - Amount Per Serving
    - Calories 120
    - Total Fat 11g (17%)
    - Saturated Fat 1.5g (8%)
    - Trans Fat 0g
    - Polyunsaturated Fat 6g
    - Monounsaturated Fat 2.5g
    - Cholesterol 0mg (0%
    - Sodium 180mg (8%)
    - Total Carbohydrate 5g (2%)
    - Dietary Fiber 0g (0%)
    - Sugars 5g
    - Protein 0g
    - Vitamin A 0%
    - Vitamin C 0%
    - Calcium 0%
    - Iron 0%
    *Percent Daily Values are based on a 2,000 calorie diet.

- French Dressing with AlgaVia™ Lipid Powder
  - Nutrition Facts
    - Serving Size (30g)
    - Amount Per Serving
    - Calories 70
    - Total Fat 5g (8%)
    - Saturated Fat 1g (5%)
    - Trans Fat 0g
    - Polyunsaturated Fat 2.5g
    - Monounsaturated Fat 1.5g
    - Cholesterol 0mg (0%)
    - Sodium 190mg (8%)
    - Total Carbohydrate 6g (2%)
    - Dietary Fiber 0g (0%)
    - Sugars 5g
    - Protein 0g
    - Vitamin A 0%
    - Vitamin C 0%
    - Calcium 0%
    - Iron 0%
    *Percent Daily Values are based on a 2,000 calorie diet.

- 55% reduced total fat
- 33% reduced saturated fat
- Eliminate need for PGA
- Same great Taste with reduced Fats/Saturated Fats
- Eliminates need for PGA
Challenge: Reduce Viscosity of Protein Beverage with less Ingredients

- 5 grams of protein per serving
- Algal Protein has all Essential Amino Acids
- 1 gram of added fiber per serving
- Zero thickeners, Zero Stabilizers = low viscosity

Protein Beverage
With AlgaVia™ Protein

**Nutrition Facts**

<table>
<thead>
<tr>
<th>Amount Per Serving</th>
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<tbody>
<tr>
<td>Calories 160</td>
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<tr>
<td>% Daily Value</td>
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<tr>
<td>From Fat 10%</td>
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<td>Total Fat 1g</td>
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<td>Saturated Fat 0g</td>
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<tr>
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<tr>
<td>0%</td>
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<tr>
<td>Sugars 27g</td>
</tr>
<tr>
<td>Protein 5g</td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet.

**Ingredients:** Water, Juice Concentrate, Algal Protein, Sugar, Citric Acid and Natural Flavours
“Microalgae is the most innovative ingredient that will change the world …” by trade media Engredea