

COMET

ARRABINA[®] & CHOCOLATE

CASE STUDY



Bringing Sweet Relief to the Confectionery Category

Reigning in their sweet tooth is a top priority for consumers when it comes to nutrition, but it can be challenging to say no to one's favorite indulgences and comfort foods.

Prebiotic fibers offer a solution to help the candy industry develop great-tasting chocolate with reduced sugar, fewer calories and a functional ingredient boost. By incorporating prebiotic fiber into their products, confectioners can tap into consumers' interest in reducing their sugar intake while also address interest in gut health.

50%

of consumers who snack do so to treat themselves, and yet

35%

of consumers are replacing treat-worthy indulgent snacks with healthy ones.**

Arrabina® improves nutrition fact labels by replacing sugar

44%

of consumers in 2021 want to try low or sugar-free candy & chocolate.*

which is up from

31%

of consumers two years ago.*

Nearly

75%

of Americans ranked digestive health high on their list of health priorities, with

25%

ranking it their number 1 priority.***

*National Confectioner's Association Report, 2022

**Mintel 2022

***IFIC Survey: Consumer Insights on Gut Health and Probiotics

COMET

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Arrabina® Is Raising The Bar In Chocolate Innovation

Increasingly, confectioners are turning to prebiotic fibers to reduce added sugar in their products. When combined with bulking agents and high-intensity sweeteners, prebiotic fibers can be used to produce tasty reduced-sugar, and even sugar-free products. Before crossing over into the functional ingredient category, there are important formulation considerations for confectioners to address when choosing a prebiotic fiber.

Arrabina® Fits Every Formulation Need:

Multiple grades of fully-soluble powders

Heat & pH resistant

Low viscosity & neutral mouthfeel

Low serving size for prebiotic claim*

Gentle on the stomach even at 15 grams**

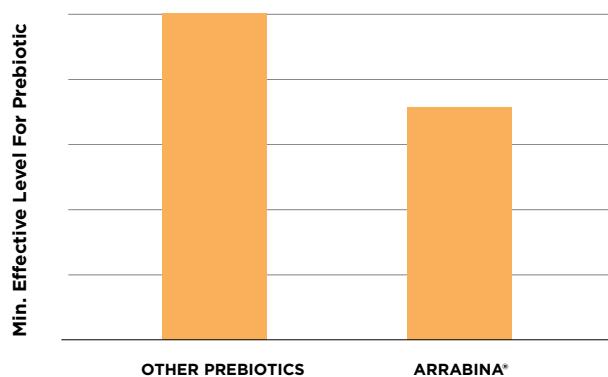
Challenge:

Prebiotic fibers offer a way to help the candy industry develop great-tasting chocolate with reduced sugar, fewer calories and a functional ingredient boost. Unfortunately, many popular prebiotic fiber options require high inclusion levels to be effective. For example, 5 grams or more is needed of inulin, a commonly used prebiotic fiber sourced derived from chicory root. These higher inclusion rates render many confectionery applications impractical.

Solution:

Arrabina is easily incorporated into the chocolate process even at a 20% inclusion level. It is highly functional with its low effective level needed for prebiotic claims, complementary color, high solubility, and no grit or gelling effects.

ARRABINA®'S LOW EFFECTIVE LEVEL



Arrabina® promotes prebiotic bifidogenesis at:

3.6g a day*

*Damen, et.al., 2012; Chen, et.al., 2021; Walton et al. 2012; Windey et al., 2015; François et al., 2014; Maki et al., 2012; Collins et al., 2023

**Oliver Chen, Traci Blonquist, Kristen Sanoshy, Kathleen Kelley, Eunice Mah, The Effect of Arabinoxylan on Gastrointestinal Tolerance in Generally Healthy Adults: A Randomized, Placebo-Controlled, Crossover Study, >, Volume 5, Issue Supplement_2, June 2021, Page 304..



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Sugar Reduction Benefits

The time is now for confectioners to take advantage of the prebiotic fiber opportunity and expand into the functional foods category.

CONTROL

Nutrition Facts

2 servings per container

Serving size 1 Chocolate (14g)

Amount Per Serving

Calories 80

% Daily Value*

Total Fat 5g 6%

Saturated Fat 3g 15%

Trans Fat 0g

Cholesterol 5mg 2%

Sodium 10mg 0%

Total Carbohydrate 8g 3%

Dietary Fiber 0g 0%

Total Sugars 7g

Includes 7g Added Sugars 14%

Protein 1g 2%

Not a significant source of vitamin D, calcium, iron, and potassium

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

ARRABINA®

Nutrition Facts

2 servings per container

Serving size 1 Chocolate (14g)

Amount Per Serving

Calories 70

% Daily Value*

Total Fat 5g 6%

Saturated Fat 3g 15%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 10mg 0%

Total Carbohydrate 8g 3%

Dietary Fiber 3g 11%

Total Sugars 4g

Includes 4g Added Sugars 8%

Protein 1g 2%

Not a significant source of vitamin D, calcium, iron, and potassium

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Good
Source of
Fiber

20%
Sugar
Reduction

12.5%
Calorie
Reduction

38%
Net Carb
Reduction



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