

# **HEALTHY DIET POTENTIAL IN FOOD AND BEVERAGE INDUSTRY**

---

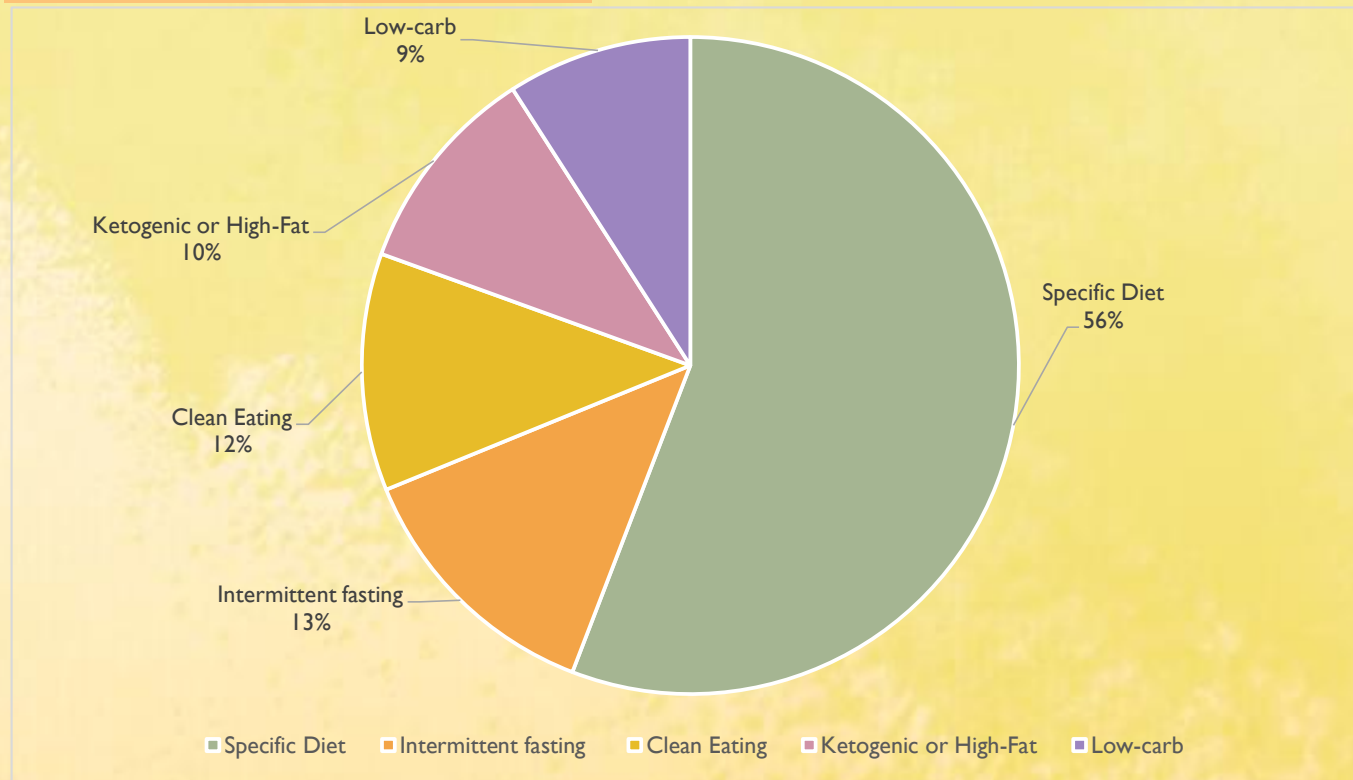


**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

“More than half (54%) of all consumers say the healthfulness of their food choices matters more now than it did in 2010.”

(International Food Information Council, 2020)

## DIET TRENDS



(International Food Information Council, 2020)

# DIET?

Diet is a pattern of food intake to meet certain demand that are relevant to health or weight

(Ridder, et al., 2017)

- **Protecting long-term health and preventing future health concerns (37%)**
- Losing weight (47%)
- Preventing weight gain (36%)
- Feeling better and having more energy (40%)
- Improving physical appearance (39%)

(International Food Information Council, 2020)



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 2

# GLOBAL PERSPECTIVES OF SPECIFIC FOOD CONSUMPTION

PERCENTAGE WHO SAY THEY FOLLOW A SPECIAL DIET THAT LIMITS OR RESTRICTS SPECIFIED FOODS OR INGREDIENTS



(The Nielsen Global Health and Ingredient-Sentiment Survey, 2016)



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id)



# THE GLOBAL METABOLIC HEALTH MARKET

Region	Category	2013	2017	2018	2022	CAGR* % 2013-17	CAGR* % 2018-22
World	Cardiovascular health	8,418.5	8,630.0	8,716.3	9,435.5	0.6	2.0
	Digestive health	53,938.5	65,894.6	69,844.0	82,857.3	5.1	4.4
	Weight management	112,553.5	121,217.7	126,108.9	150,238.6	1.9	4.5
North America	Cardiovascular health	5,224.2	4,891.2	4,869.7	4,915.1	-1.6	0.2
	Digestive health	14,002.1	14,376.0	14,867.1	17,168.5	0.7	3.7
	Weight management	39,984.4	36,197.0	35,881.2	36,818.8	2.5	0.6
Western Europe	Cardiovascular health	1,773.2	1,603.6	1,594.8	1,632.4	2.5	0.6
	Digestive health	12,805.0	14,959.4	15,828.2	20,485.9	4.0	6.7
	Weight management	36,491.7	36,353.1	37,201.7	40,014.8	-0.1	1.8
Asia Pacific	Cardiovascular health	585.7	636.7	673.1	855.7	2.1	6.2
	Digestive health	11,207.7	16,278.1	17,734.7	17,613.6	9.8	-0.2
	Weight management	12,492.7	16,581.9	18,122.0	25,151.5	7.3	8.5

Region	Category	2013	2017	2018	2022	CAGR* % 2013-17	CAGR* % 2018-22
Latin America	Cardiovascular health	405.9	1,052.6	1,122.3	1,547.4	26.9	8.4
	Digestive health	6,935.9	8,787.7	9,131.2	11,654.6	6.1	6.3
	Weight management	10,016.8	14,958.5	16,561.9	23,636.2	10.5	9.3
Middle East and Africa	Cardiovascular health	17.3	20.6	22.0	27.1	4.5	5.4
	Digestive health	2,883.2	4,040.0	4,443.2	6,333.0	8.8	9.3
	Weight management	5,473.4	8,062.8	9,045.3	13,953.3	10.2	11.4
Eastern Europe	Cardiovascular health	105.1	137.2	148.0	167.0	6.9	3.1
	Digestive health	4,203.3	5,415.7	5,728.4	7,169.6	6.5	5.8
	Weight management	4,613.0	5,635.0	5,926.1	7,385.7	5.1	5.7
Australasia <sup>[1]</sup>	Cardiovascular health	307.1	288.0	286.5	290.9	-1.6	0.4
	Digestive health	1,901.3	2,037.7	2,111.2	2,432.1	1.7	3.6
	Weight management	3,481.5	3,429.4	3,370.7	3,278.3	-0.4	-0.7

\*CAGR: Compound annual growth  
1: Australia and New Zealand only

(The Government of Canada, 2018)



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 4

# HEALTHY DIET?



Healthy dietary patterns focused on **decreasing the risk of chronic disease**, which emphasize whole-grain foods, vegetables, fruits and legumes, as well as limit the consumption of refined starches, full-fat dairy products, red meat and foods and beverages high in added sugars.

(Skerrett & Willet, 2010)

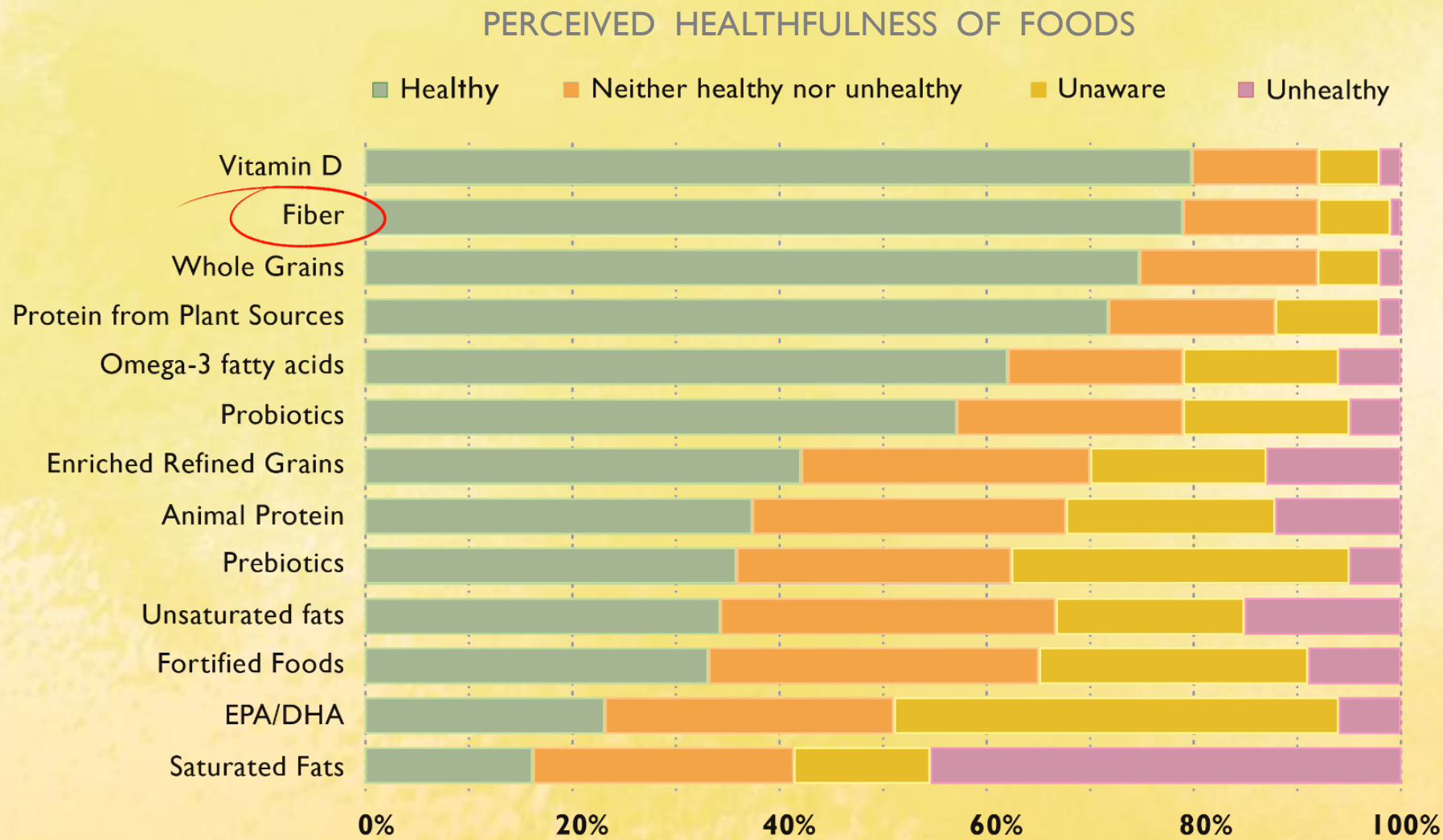
According to FDA, healthy diet itself defined as diet which are rich in **fibers**, whole grains, legumes, nuts, low refined grains, low-fat or non-fat dairy, polyunsaturated fatty acids and low saturated fatty acids. As most people know that the classic major culprits of an unhealthy diet are high **sugar**, fat, salt and **calorie** diet.

(Ridder, et al., 2017)





# Perceived Healthy Ingredients



(International Food Information Council, 2019)



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**  
7-9 September 2022  
Jakarta, Indonesia

[www.matahariraya.co.id](http://www.matahariraya.co.id)

# FIBER?



(Harvard Health Publishing, 2020)

100% FIBER IN ONE PACKAGE

**FIBERSSE®**  
POLYDEXTROSE

ONE INGREDIENT TO SOLVE VARIOUS LIMITATIONS

| FIBER | PREBIOTICS | SUGAR REPLACERS | FAT REPLACERS |  
| HUMECTANT | STABILIZERS | TEXTURIZER | CLAIMS |

Multi-purpose ingredient which can be used in various beverages and food products



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id)



# CERTIFICATION AND APPROVAL BENEFITS



**BADAN POM**  
Badan Pengawas Obat dan Makanan

New Search

Elibrary®  
Help | More About 21CFR

[Code of Federal Regulations]  
[Title 21, Volume 3]  
[Revised as of April 1, 2019]  
[CITE: 21CFR172.841]

TITLE 21--FOOD AND DRUGS  
CHAPTER I--FOOD AND DRUG ADMINISTRATION  
DEPARTMENT OF HEALTH AND HUMAN SERVICES  
SUBCHAPTER B--FOOD FOR HUMAN CONSUMPTION (CONTINUED)

PART 172 -- FOOD ADDITIVES PERMITTED FOR DIRECT ADDITION TO FOOD FOR HUMAN CONSUMPTION

Subpart I--Multipurpose Additives

Sec. 172.841 Polydextrose.

Polydextrose as identified in this section may be safely used in food in accordance with the following prescribed conditions.

(a) (1) Polydextrose (CAS Reg. No. 68424-04-4) is a partially metabolizable water-soluble polymer prepared by the condensation of a melt which consists either of approximately 89 percent D-glucose, 10 percent sorbitol, and 1 percent citric acid or of approximately 90 percent D-glucose, 10 percent sorbitol, and 0.1 percent phosphoric acid, on a weight basis.

(2) Polydextrose may be partially neutralized with potassium hydroxide, or partially reduced by transition metal catalytic hydrogenation in aqueous solution.

(b) The additive meets the specifications of the Food Chemicals Codex, 7th ed. (2010), pp. 811-814, which is incorporated by reference. The Director of the Office of the Federal Register approves this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain copies from the United States Pharmacopeial Convention, 12601 Twinbrook Pkwy., Rockville, MD 20852 (Internet address <http://www.usp.org>). Copies may be examined at the Food and Drug Administration's Main Library, 10903 New Hampshire Ave., Bldg. 2, Third Floor, Silver Spring, MD 20993, 301-796-2039, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

(c) When standards of identity established under section 401 of the act do not preclude such use, polydextrose may be used in accordance with current good manufacturing practices as a bulking agent, formulation aid, humectant, and texturizer in all foods, except meat and poultry, baby food, and infant formula.

(d) If the food containing the additive purports to be or is represented for special dietary uses, it shall be labeled in compliance with part 105 of this chapter.

(e) The label and labeling of food a single serving of which would be expected to exceed 15 grams of the additive shall bear the statement: "Sensitive individuals may experience a laxative effect from excessive consumption of this product".

[46 FR 30081, June 5, 1981, as amended at 59 FR 37421, July 22, 1994; 60 FR 54425, Oct. 24, 1995; 61 FR 14480, Apr. 2, 1996; 62 FR 30985, June 6, 1997; 63 FR 57597, Oct. 28, 1998; 65 FR 64605, Oct. 30, 2000; 65 FR 79719, Dec. 20, 2000; 72 FR 46564, Aug. 21, 2007; 78 FR 71464, Nov. 29, 2013]



# CERTIFICATION AND APPROVAL BENEFITS

- **PerBPOM No.11 Tahun 2019 tentang BTP**

[https://standarpangan.pom.go.id/dokumen/peraturan/2019/PerBPOM No 11 Tahun 2019 tentang BTP.pdf](https://standarpangan.pom.go.id/dokumen/peraturan/2019/PerBPOM%20No%2011%20Tahun%202019%20tentang%20BTP.pdf)

- **Hasil Kajian Pengajuan Pangan Olahan Tertentu**

standarpangan.pom.go.id/produk-standardisasi/hasil-kajian-pengajuan-permohonan/pangan-olahan-tertentu/senyawa-gizi-dan-non-gizi					
HOME   TENTANG KAMI   BERITA   <b>PRODUK STANDARDISASI</b>   PENYUSUNAN   PELAYANAN PUBLIK   HELP CENTER   PENGADUAN					
No	Senyawa Zat Gizi/Non Gizi yang Diizinkan	Persyaratan	Fungsi	Jenis Pangan	Kategori Pangan
9	Polidekstrosa sebagai sumber serat	-		Semua Produk	-

# HEALTH BENEFITS

Fibersse®  
Polydextrose

Easily Absorbs  
Minerals  
(Calcium)

Save for Diabetes  
& Hypertension

Satiety – Weight  
Management

Prevent the Risk  
of CVD



Copyright: Rawpixel Ltd.

Gut Health –  
Source of  
Prebiotics

Lowering High  
Blood Glucose  
Level

Lowering  
Cholesterol Level

Decrease Risk of  
Cancer



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 10



# FUNCTIONAL BENEFITS

Fibersse®  
Polydextrose

Claims

Bulking Agent

Body, Texture &  
Mouthfeel

Texturizer

Flavor & Aroma  
Enhancer

Stabilizer

Humectant



Copyright: Rawpixel Ltd.



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 11





No Sugar

Low Sugar

Source of Prebiotics / Source of Fiber (>3%)

Reduced Sugar

Less Fat

High/Rich of Prebiotics / High/Rich of Fiber (>6%)

Claims



**REPLACING OTHER  
INGREDIENTS WITH  
FIBERSSE?**

# REPLACE SUGAR WITH FIBERSSE

- Same functionality as table sugar
- Low Calorie (1 kcal/g)
- Low GI: 7
- High tolerance, no side effect
- Improve texture
- Better stability (longer shelf life)
- Improve functionality & claims:
  - Source / High of Fiber
  - No / Less / Reduced Sugar

# REPLACE PART OF FAT WITH FIBERSSE

- Improve texture: Can replace the texture loss by decreasing the usage of fat
- Better stability (longer shelf life)
- Improve functionality & claims:
  - Source / High of Fiber
  - Low / Reduced Fat

# REPLACE PART OF PECTIN WITH FIBERSSE

- Improve texture, color, aroma, and taste
- Prevent syneresis (longer shelf life)
- Saving cost
- Improve functionality & claims:
  - Source / High of Fiber
  - No / Less / Reduced Sugar

Fibersse®  
Polydextrose





# **FIBERSSE: COMMON PRODUCT APPLICATIONS**

# FROZEN DAIRY PRODUCTS



Longer melting time, ice crystal reduced, softer & denser texture, taste like premium ice cream without high fat

Longer shelf life & stabilized during display, no limitation, won't affect the taste & color formulation

Fibersse®  
Polydextrose



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 16



# BAKED GOOD PRODUCTS



Stay crisp, texture improved, longer shelf life, aroma, mouthfeel and flavor enhanced/boosted

Prevent leakage to the baked goods (biscuit/crackers/cookies/etc), texture improved, longer shelf life, aroma, mouthfeel and flavor enhanced/boosted

Fibersse®  
Polydextrose



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

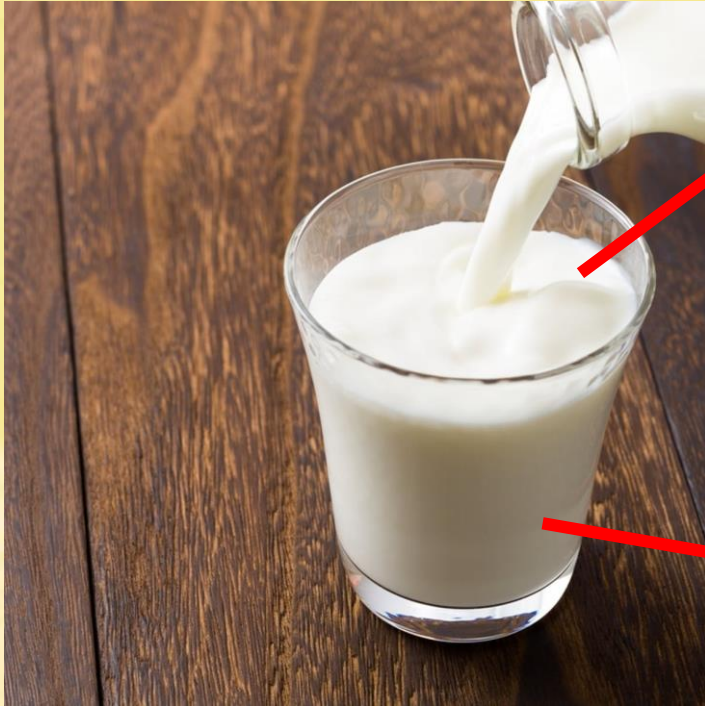
**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 17

# BEVERAGE PRODUCTS



Body & texture improved, longer shelf life, aroma, mouthfeel and flavor enhanced/boosted

Not influence the color and taste (same color using Fibersse or without).

Thus, no need to adjust the initial formulation.

Fibersse®  
Polydextrose



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

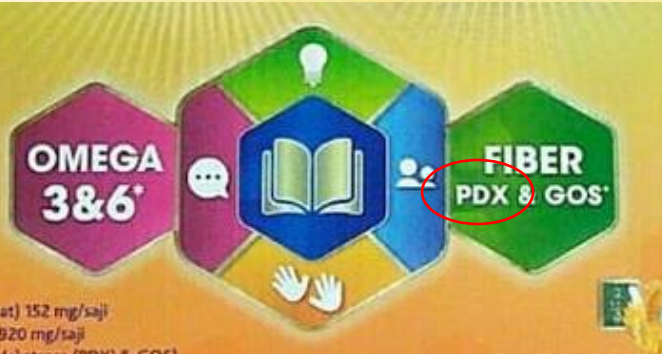
**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 18



# INFANT FORMULA PRODUCTS



As Prebiotic helps to:

- Regulate intestinal function
- Support the growth of gut bacteria
- Remove toxic substances, improve body immunity



Improve texture, body, mouthfeel  
Stabilized the product

Fibersse®  
Polydextrose



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food Ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 19

Randomized Controlled Trial > J Pediatr Gastroenterol Nutr. 2012 Mar;54(3):343-52.

doi: 10.1097/MPG.0b013e318237ed95.

## New prebiotic blend of polydextrose and oligosaccharides has a bifidogenic effect in infants

Deolinda M F Scalabrini<sup>1</sup>, Susan H Mitmesser, Gjalte W Wever, Carey Walker, Nico A Bos, Satu Tölkö, Seppo Salminen, Jukka Tienari

Affiliations + expand

PMID: 21946836 DOI: 10.1097/MPG.0b013e318237ed95

Nutr J. 2012; 11: 38.

Published online 2012 Jun 7. doi: 10.1186/1475-2891-11-38

Growth and tolerance of infants fed formula supplemented with polydextrose (PDX) and/or galactooligosaccharides (GOS): double-blind, randomized, controlled trial

Claude Ashley,<sup>1</sup> William H Johnston,<sup>2</sup> Cheryl L Harris,<sup>3</sup> Suzanne I Stolz,<sup>3</sup> Jennifer L Wampler,<sup>3</sup> and Carol Lynn Berseth<sup>3</sup>

PMCID: PMC3416677

PMID: 22676715

### Article

Clinical Research Article | Open Access | Published: 02 July 2020


## Developmental effects on sleep–wake patterns in infants receiving a cow’s milk-based infant formula with an added prebiotic blend: a Randomized Controlled Trial

John Colombo<sup>✉</sup>, Susan E. Carlson, Cecilia Algarín, Sussanne Reyes, Maciej Chichlowski, Cheryl L. Harris, Jennifer L. Wampler, Patricio Peirano & Carol Lynn Berseth

Pediatric Research (2020) | Cite this article

1190 Accesses | 1 Citations | 5 Altmetric | Metrics

## Enriched infant formula reduces respiratory infections in Randomized Controlled Trial

John Colombo<sup>1,3</sup>, Daniela Piacentini<sup>3</sup>, Grazia Felisi<sup>6</sup> , Patricio Baraldi<sup>3</sup>, Carlo Giaquinto<sup>3</sup>



# JAMS AND JELLY



Color, aroma, body & texture improved, longer shelf life

Not influence the color and taste (same color using Fibersse or without), help to prevent syneresis

Replace part of **pectin**

Fibersse®  
Polydextrose



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 21

# SUGAR REDUCTION?

According to FONA International survey,

**56%** of consumers are consuming less sugar than they did a year ago

**73%** are interested in “no added sugar claims”

(FONA International, 2019)

## WHY?

**Excessive sugar intake leads to**

Obesity | Long term high blood pressure | High cholesterol | Respiratory difficulties | Diabetes | Bone & joint complains | Dental caries |

(Noakes, 2020)



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FINGRES**  
Ingredients, Quality & Technology

**Fi** Food ingredients  
Asia  
7-9 September 2022  
Jakarta, Indonesia

VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 22



# HOW?



## PALM SUGAR

- Natural
- Lower GI (compare to table sugar)
- Contains mineral, vitamins and antioxidant

## Stevipure™

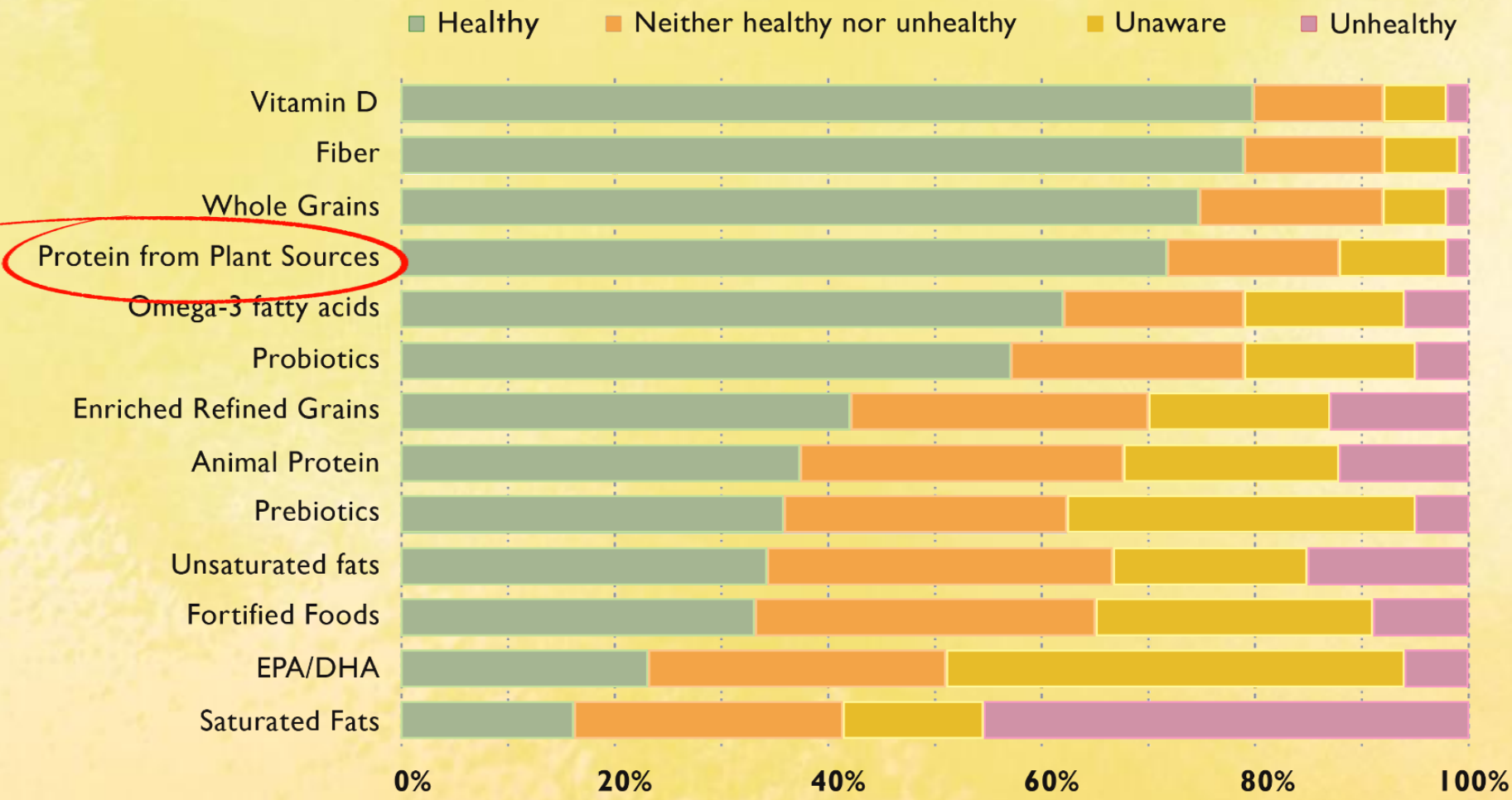
- Stevia
- Natural
- No GI
- >200x sweetness of table sugar

## Sweetysol™

- Blended Sweetener
- No Calories
- No GI
- 120x, 200x sweetness of table sugar

# Perceived Healthy Ingredients

## PERCEIVED HEALTHFULNESS OF FOODS



(International Food Information Council, 2019)



# PLANT PROTEIN

According to the research “Association Between Plant and Animal Protein Intake and Overall and Cause-Specific Mortality”

There is small but significant effect by replacing animal protein intake to plant protein intake. Higher intake of plant protein resulted in lower overall and CVD mortality.

(Huang, *et al.*, 2020)

## HOW?

### PEA PROTEIN **Peavia**<sup>TM</sup>

- Potential soy protein & animal protein substitutes
- Better option for allergies
- Better as emulsifying & foaming agent
- Better option for patient with chronic kidney disease
- High in Lysine

(Krefting, J., 2017 ; Lu *et al.*, 2019)



# ADDITIONAL HEALTH BOOSTER

## VITAMINS

Addition of vitamins in the diet will supported the healthy lifestyle.

Especially vitamin C. The addition of vitamin C will boost the synergistic effect toward plant based protein, fiber, antioxidant, and various ingredients.



## PLANT EXTRACTS

Addition of plant extracts will enhance the antioxidant and functional activities.



# POTENTIAL RTE HEALTHY FOOD

Q2. Please tell us how often do you buy ready to eat healthy food ? [SA]

- While the majority of Thai & Indonesia consume RTE healthy food more than once per week (44.0%). The majority of Vietnam respondents are purchasing 2-3 times/month (34.6%) and the minority consume everyday (29.0%)



More than once per week people consumed RTE healthy food

(W&S Holdings Joint Stock Company, 2015)



PT. MATAHARI RAYA KIMIATAMA  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



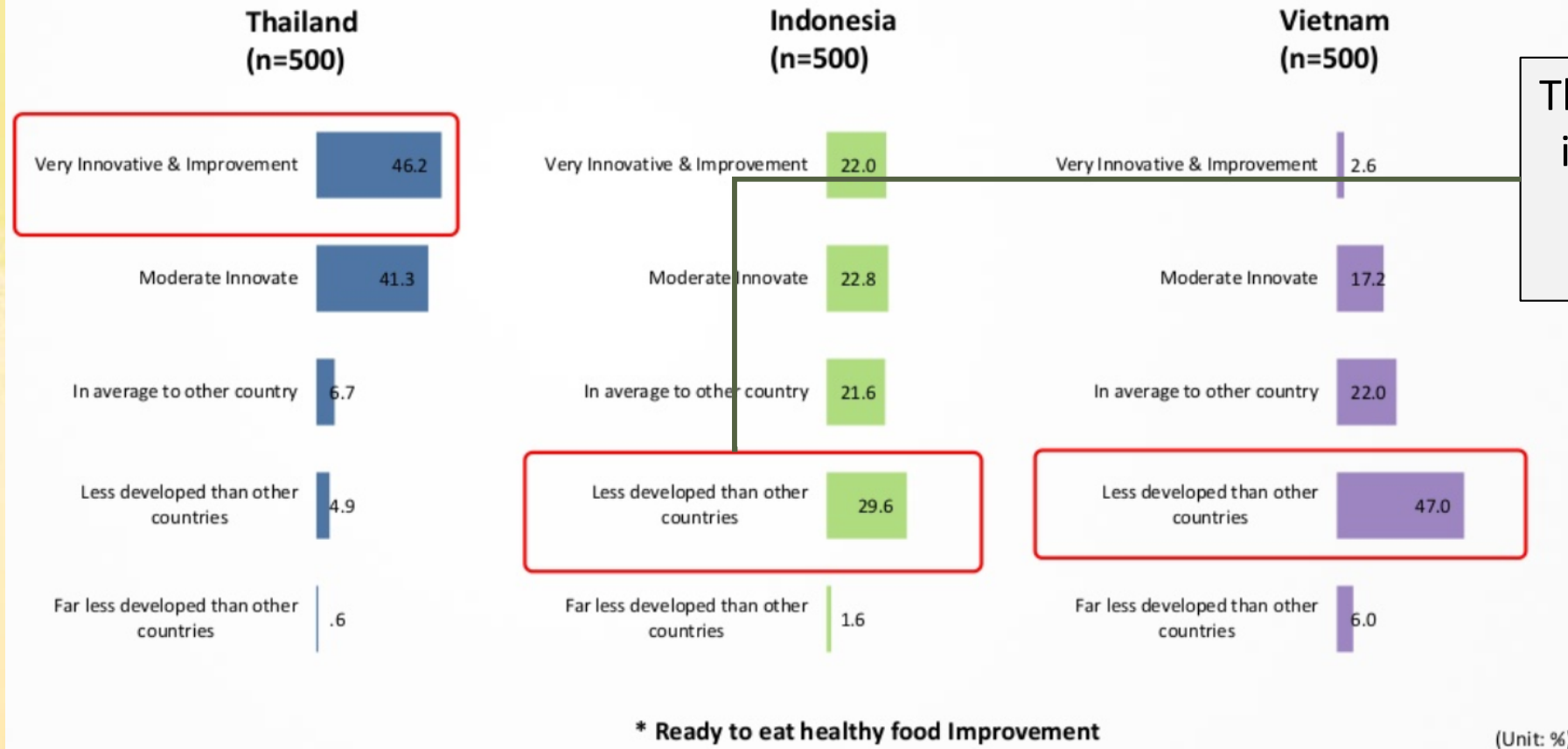
VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 27

# POTENTIAL RTE HEALTHY FOOD

Q9. How do you think with innovation & penetration of ready to eat healthy food in your country compare to other country (in terms of quality & variety) ? [SA]

- The level of RTE healthy food innovation is considered to be high in Thailand, proven by number of votes by Thai (46.2%) and another significant half vote for the level of moderate innovation (41.3%)
- However, the significant majority of Vietnamese (47.0%) vote for lesser development for RTE healthy innovation. The same trend happens for Indonesia with lesser percentage vote for the category (29.6%)



The RTE healthy food innovation still less developed than other countries

(W&S Holdings Joint Stock Company, 2015)



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**  
7-9 September 2022  
Jakarta, Indonesia

[www.matahariraya.co.id](http://www.matahariraya.co.id) 28





**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

**FOUNDED SINCE 1995**

- Sole agent for Fibersse Polydextrose
- Have exclusive partnership with Fingres
- Provide various functional ingredients
- Concerned to provide innovative products which follow today's trends.



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR



VISIT US AT:  
**Booth A-T26**  
**Hall A**

[www.matahariraya.co.id](http://www.matahariraya.co.id) 29

# CONTACT US:

**Phone Number :**

(+62 21) 55797540, 55797541, 55797542,  
5518942

**Fax :**

(+62 21) 55797539

**Email :**

*mrktama@matahariraya.co.id*

## VISIT US ON



**Food ingredients  
Asia**

7-9 September 2022  
Jakarta, Indonesia

**VISIT US AT: Booth A-T26  
Hall A**



**PT. MATAHARI RAYA KIMIATAMA**  
INDUSTRIAL CHEMICALS AGENT & DISTRIBUTOR

[www.matahariraya.co.id](http://www.matahariraya.co.id)