

THE LANDSCAPE OF COMMERCIALY AVAILABLE NON-DAIRY FROZEN DESSERTS

An exploration into current plant based offerings





Harvard Health Publishing
HARVARD MEDICAL SCHOOL

Trusted advice for a healthier life

What is a plant-based diet and why should you try it?

POSTED SEPTEMBER 26, 2018, 10:30 AM , UPDATED SEPTEMBER 27, 2018



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Food Business News.

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Trend of the year: Plant-based foods



Forbes

16,137 views | Jan 19, 2020, 03:27pm EST

Plant-Based Foods Are Hot, And They're Only Getting Hotter



Douglas Yu Contributor @

Food & Drink

I write about trends and investments in the consumer goods industry.

SN SUPERMARKET NEWS

ISSUES & TRENDS > CONSUMER TRENDS

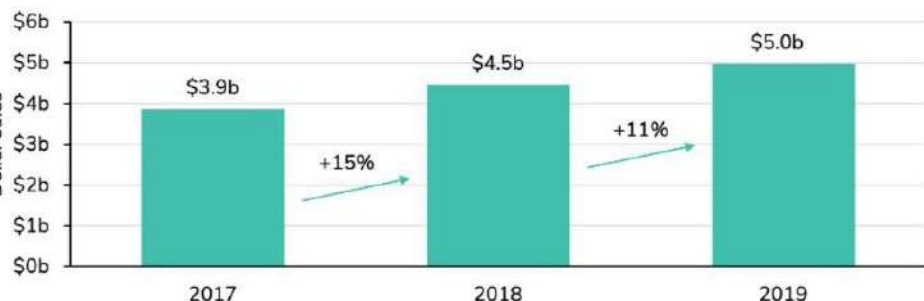
Retail sales of plant-based foods surge

Growth outpaces overall U.S. retail food market

Russell Redman 1 | Jul 16, 2019



Total U.S. Plant-Based Food Market



THE BREAKDOWN

- 57 brands
- 379 total unique finished products
- 85 unique base mix formulas
- Caveats
 - This is not an endorsement of any particular brand or product
 - Products studied were found between April-May 2020
 - This is not a comprehensive list of all available products
 - Only information available on company's website was used
 - Novelties were largely left out
 - Nondairy products offering an ice cream like experience



BASIC PROFILE OF REAL ICE CREAM

Standard of Identity: Ice cream

- At least 10% Butterfat
- 20% milk solids (including butterfat and nonfat milk solids)
- ~36% total solids
 - Typical range 36-42%
- Weigh no less than 4.50 lbs/gallon (finished ice cream weight)
 - Typically close to 100% overrun
- *Custard- 1.4% egg yolk solids

Ingredient	Function in Ice Cream	Typical Usage
Cream	Primary fat source, creamy mouthfeel, body/texture, standup properties	10-18% butterfat
Skim Milk	Primary source of MSNF, mouthfeel, body/texture, standup properties, primary protein source	10% MSNF ~4% total protein
Whey/ Buttermilk	Source of MSNF	Usually 2.5% or less
Sugar (sucrose)	Sweetness, freezing point depression	10-17%
Corn Syrup	Sweetness, freezing point depression, increases mix viscosity, chewy texture	3-7%
Stabilizers	Guar gum, locust/carob bean gum, carrageenan, etc Increase mix viscosity, increase heat shock resistance.	0.1-0.3%
Emulsifiers	Egg yolk, mono and diglycerides, polysorbate 80 Encourage partial coalesce by displacing proteins from the fat globule interface	0.5% or less



MILK REPLACEMENTS



COCONUT "MILK" AND COCONUT "CREAM"



NUT "MILKS"

ALMOND



CASHEW



HAZELNUT



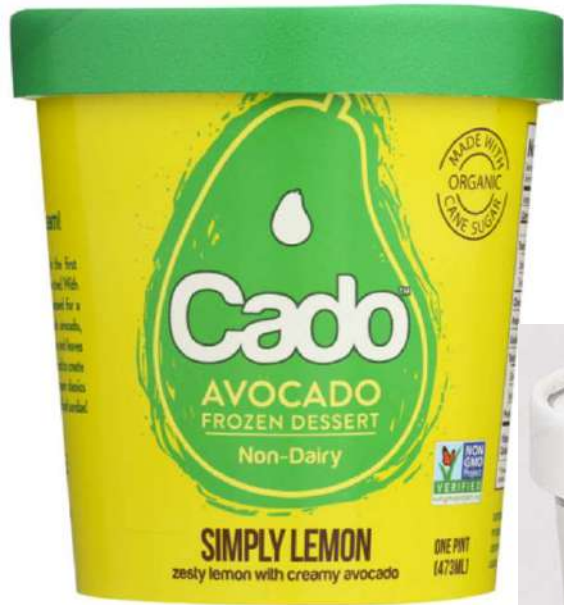
PISTACHIO



BANANA "MILK"



AVOCADO "MILK"



LEGUME "MILKS"



PEA

PEANUT



SOY

FABA

BEAN



CEREAL GRAIN "MILKS"

OAT

RICE



SEED "MILKS"

HEMP



SUNFLOWER SEED

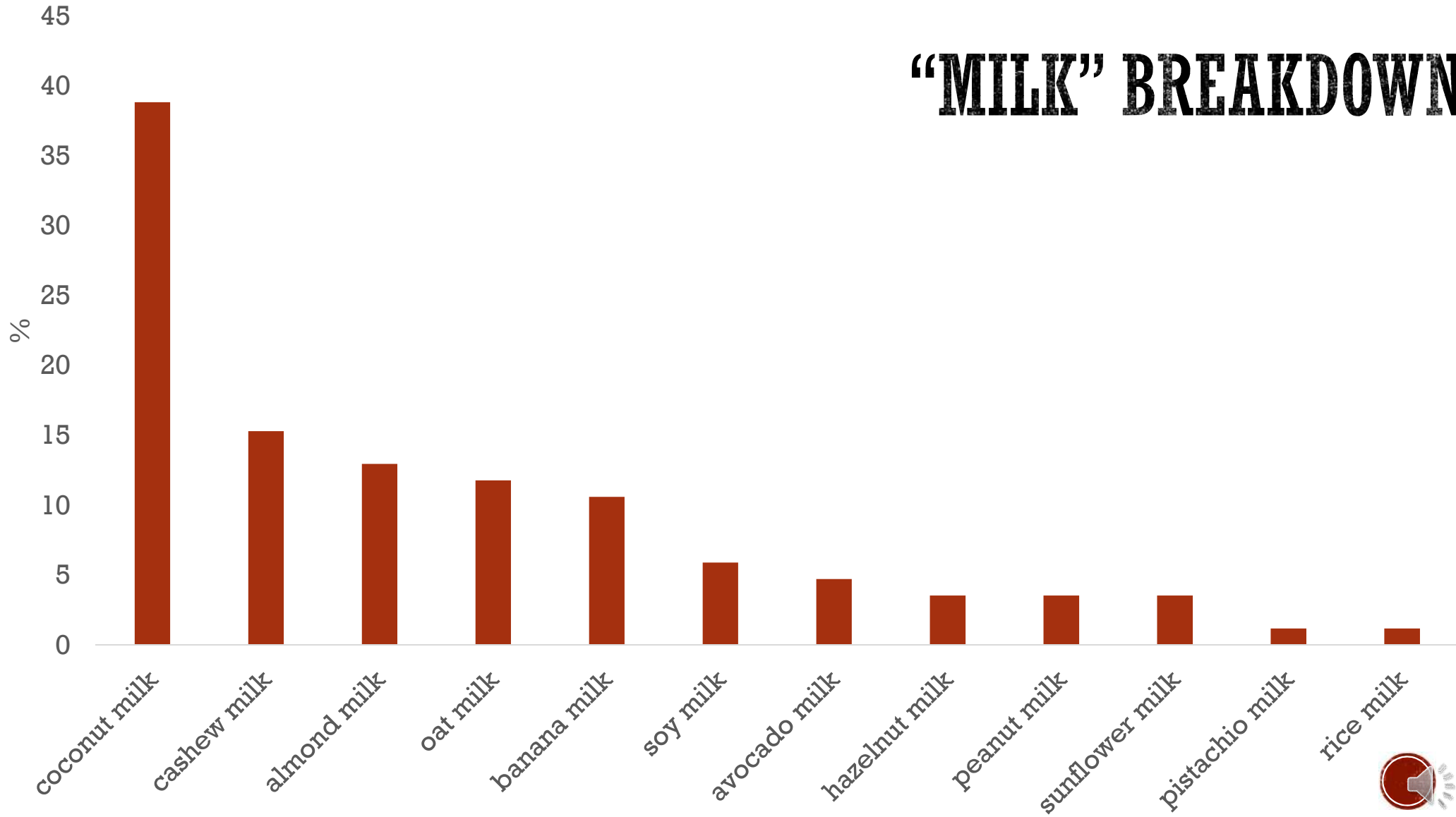


ANIMAL FREE "MILK"

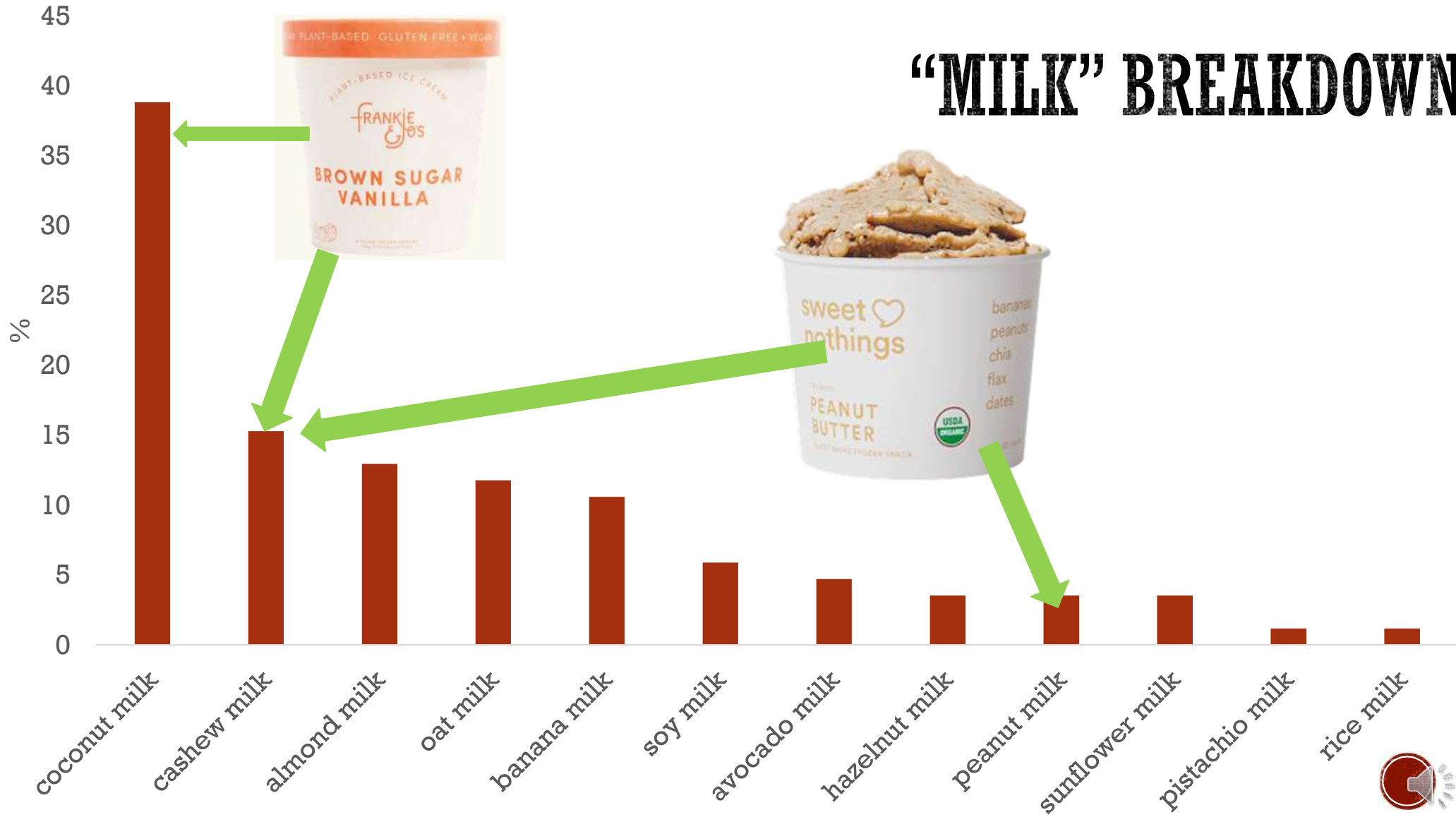
NON-ANIMAL WHEY PROTEIN



“MILK” BREAKDOWN

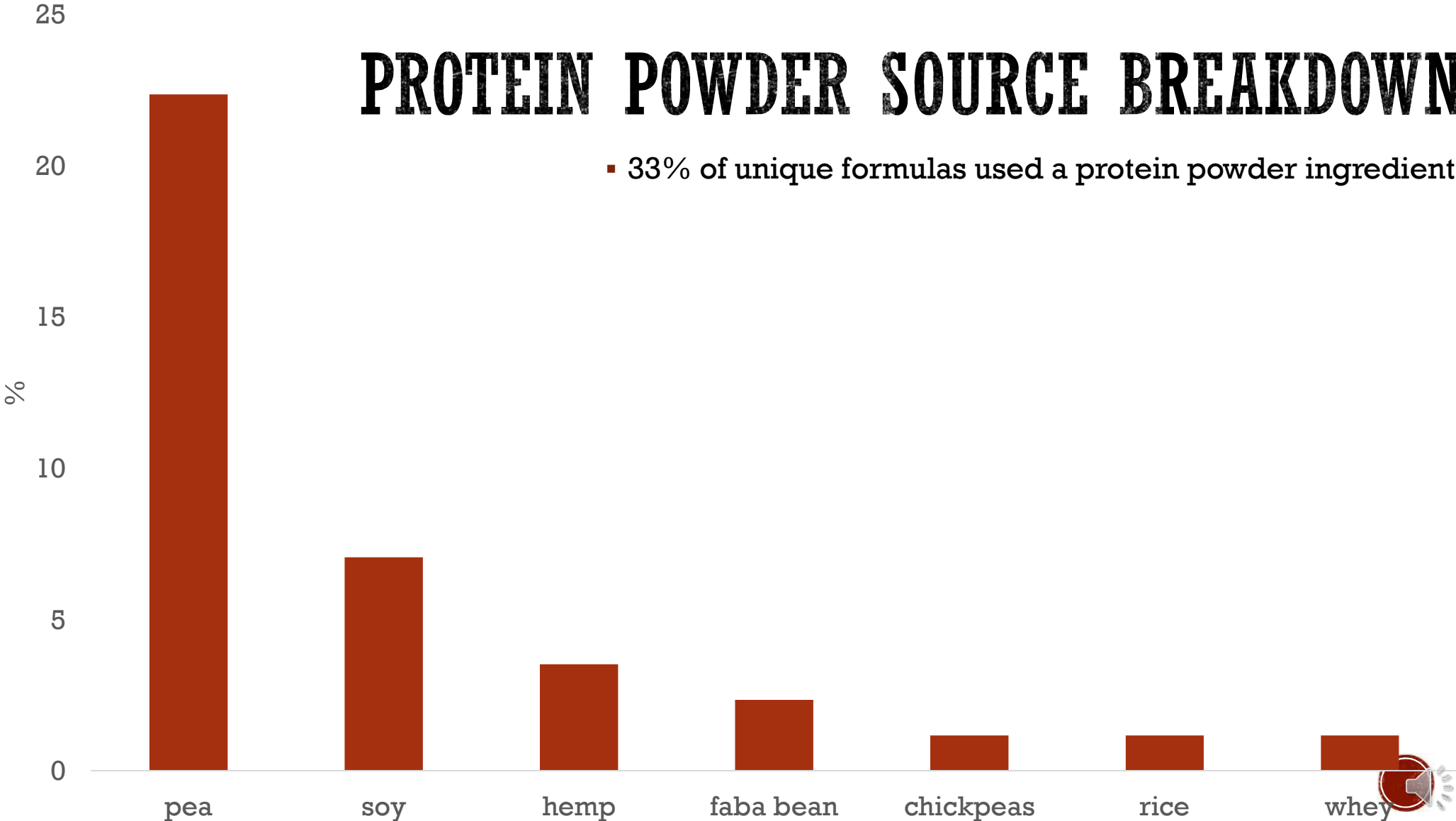


"MILK" BREAKDOWN



PROTEIN POWDER SOURCE BREAKDOWN

■ 33% of unique formulas used a protein powder ingredient

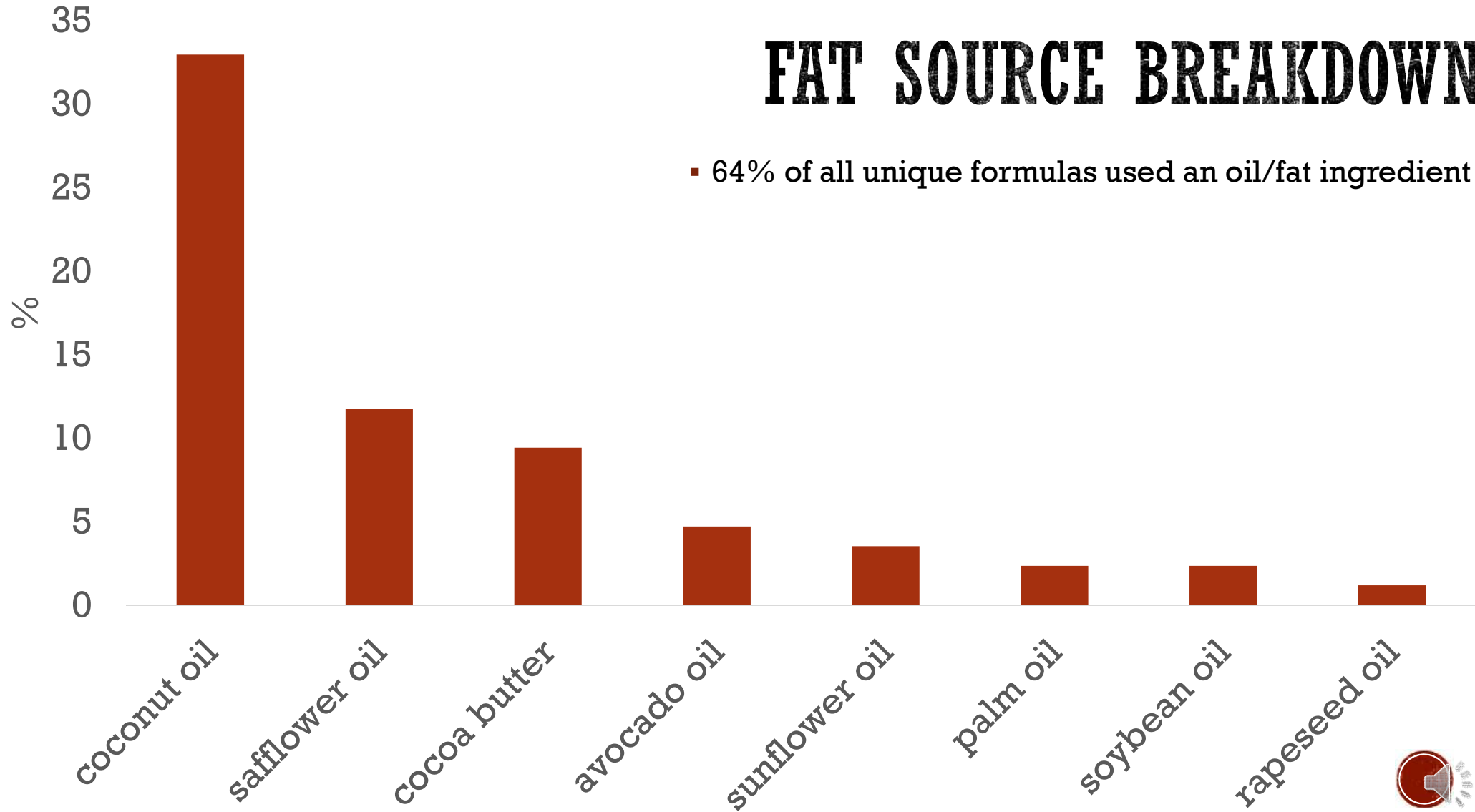


CREAM REPLACEMENT



FAT SOURCE BREAKDOWN

■ 64% of all unique formulas used an oil/fat ingredient



SWEETENERS



SWEETENED WITH DATES



SWEETENED WITH MAPLE SYRUP

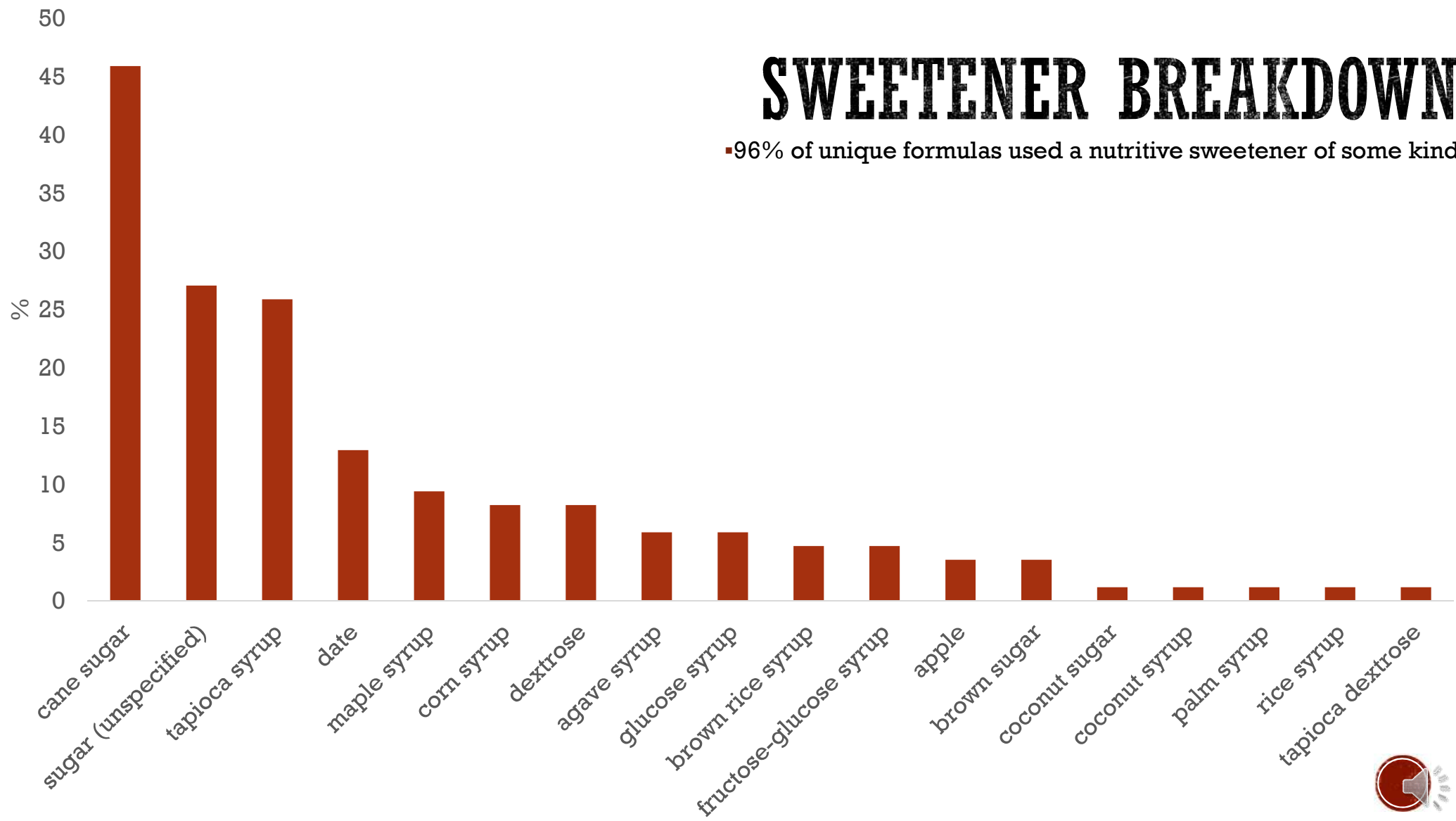


SWEETENED WITH AGAVE SYRUP



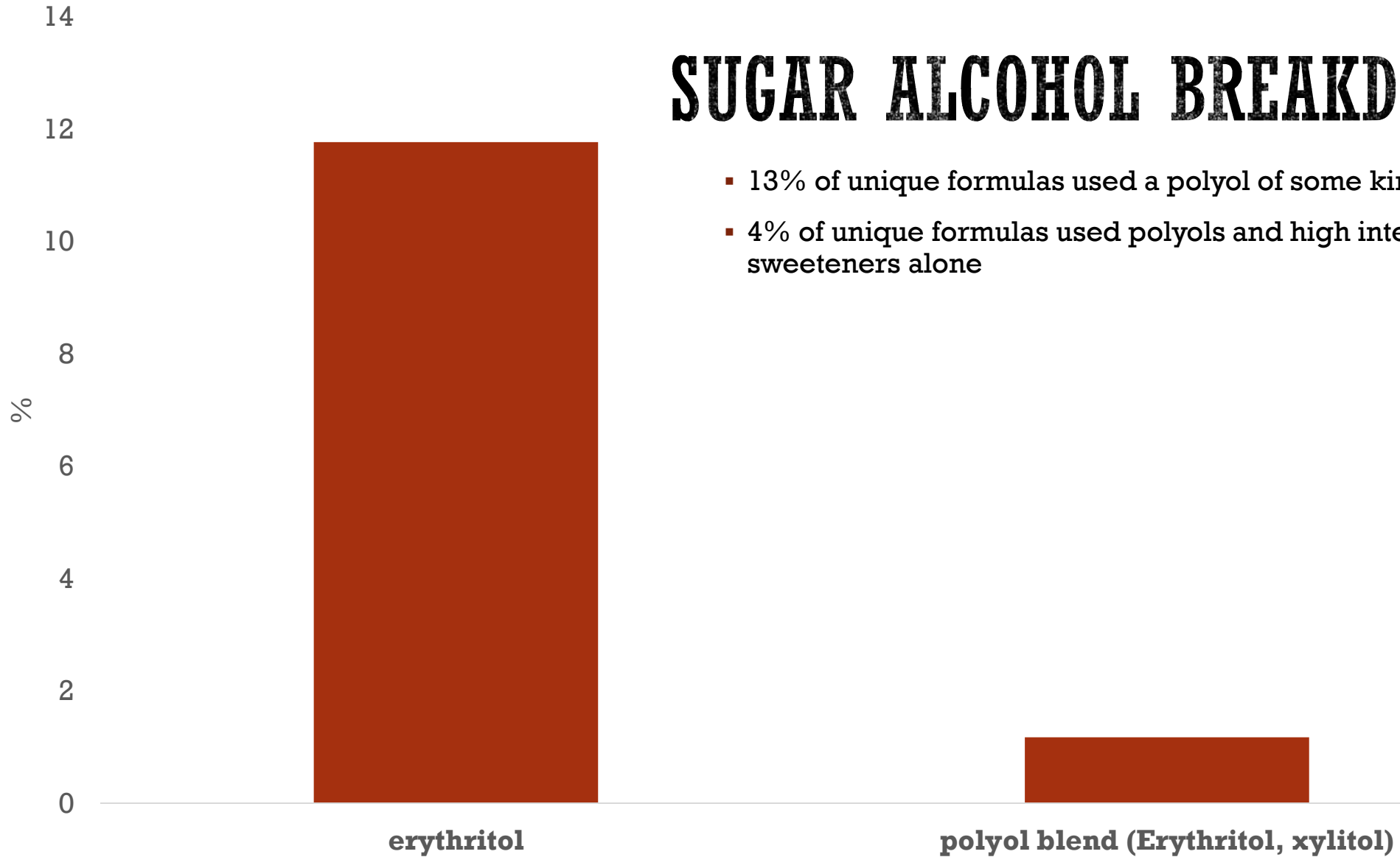
SWEETENER BREAKDOWN

96% of unique formulas used a nutritive sweetener of some kind



SUGAR ALCOHOL BREAKDOWN

- 13% of unique formulas used a polyol of some kind
- 4% of unique formulas used polyols and high intensity sweeteners alone

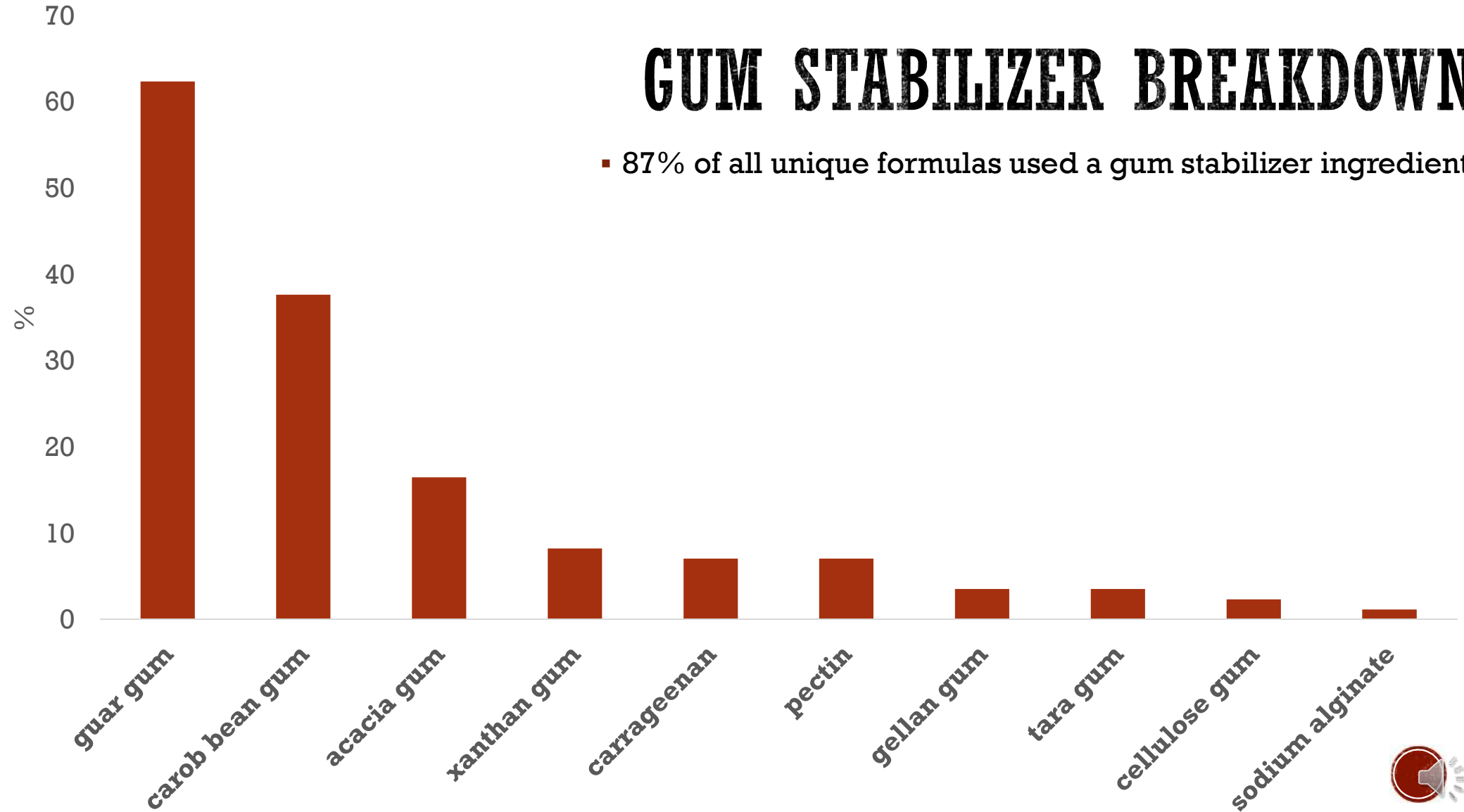


STABILIZERS



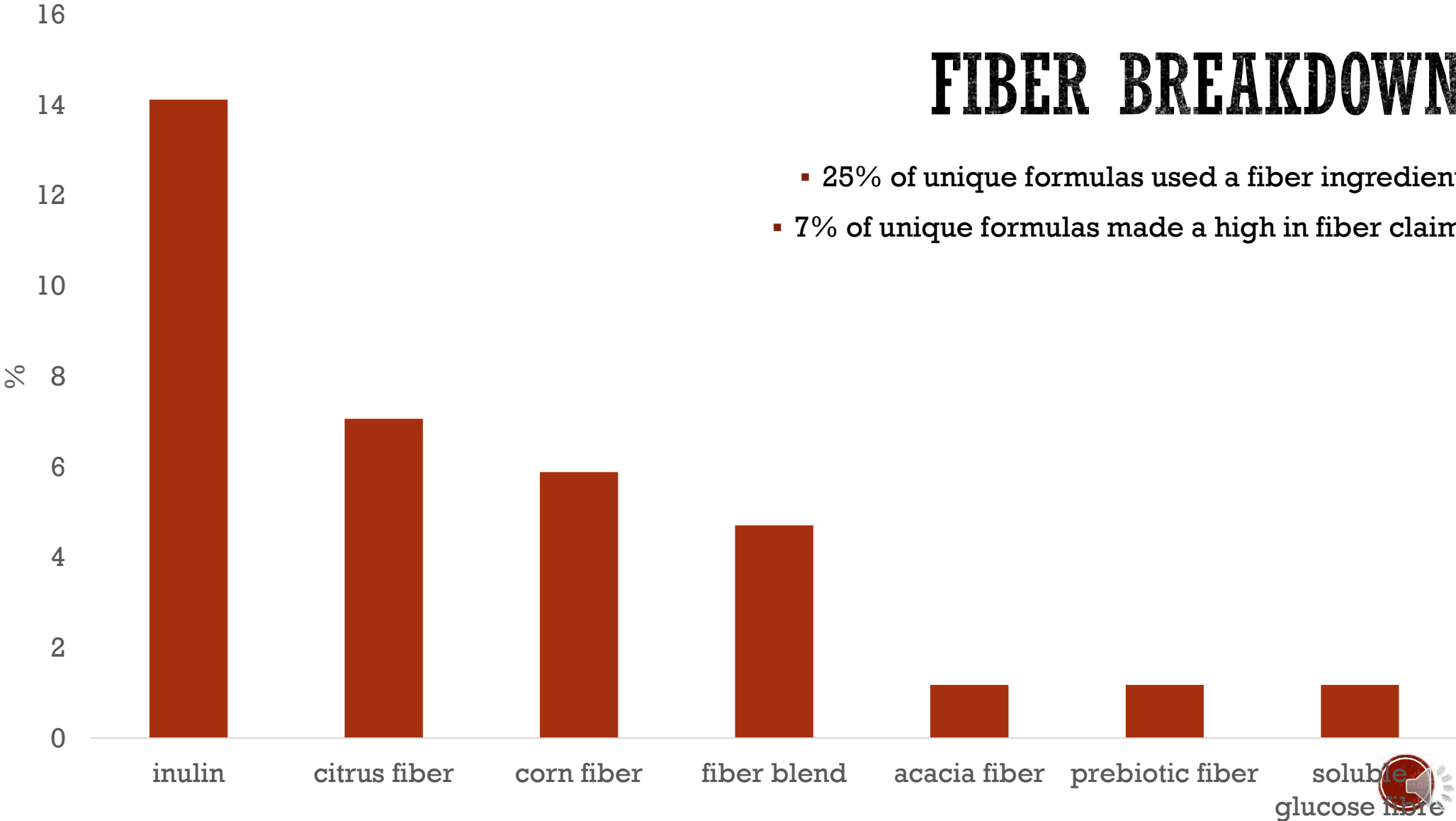
GUM STABILIZER BREAKDOWN

■ 87% of all unique formulas used a gum stabilizer ingredient



FIBER BREAKDOWN

- 25% of unique formulas used a fiber ingredient
- 7% of unique formulas made a high in fiber claim



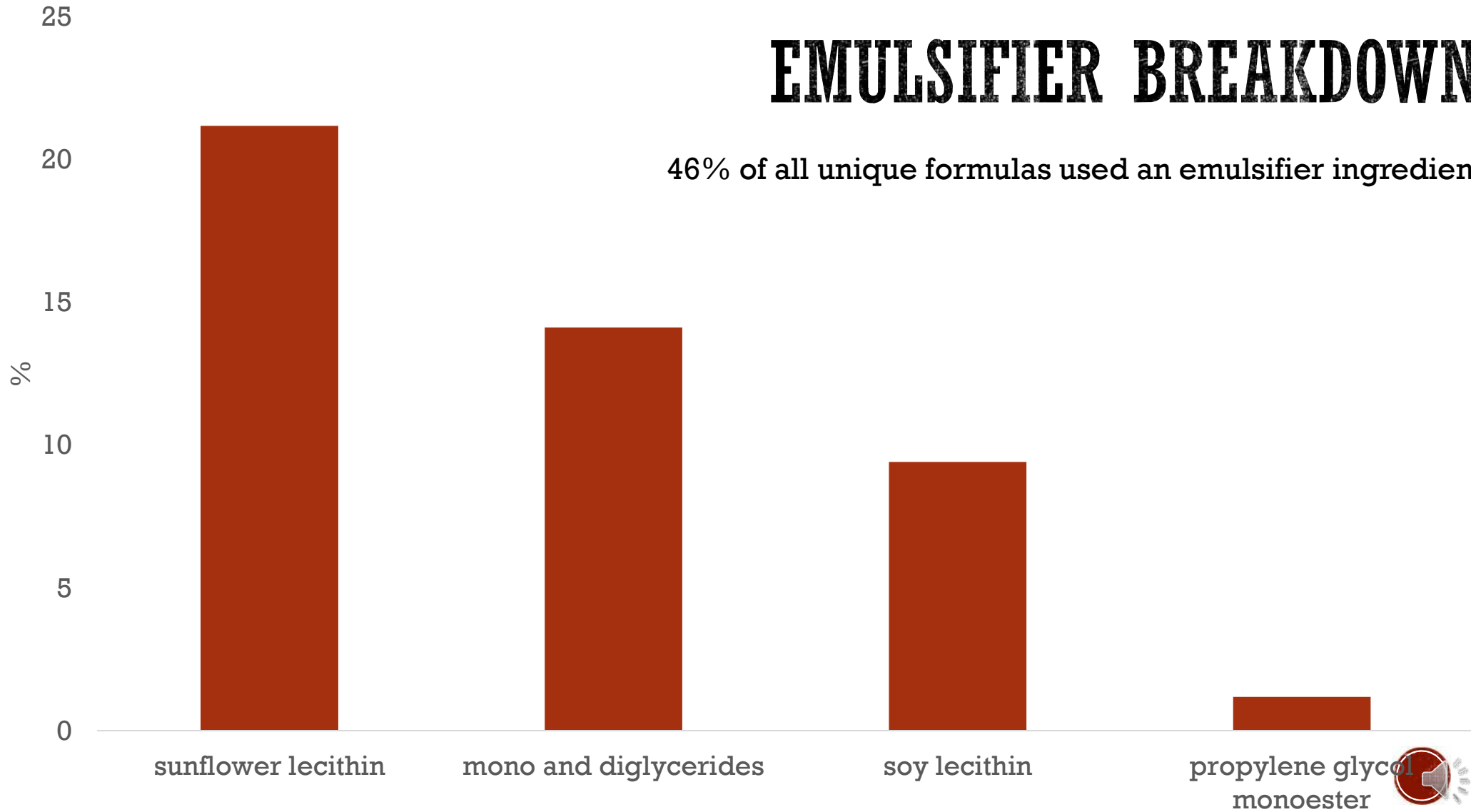
EMULSIFIERS

Small Molecules



EMULSIFIER BREAKDOWN

46% of all unique formulas used an emulsifier ingredient



COMPOSITION BREAKDOWN



COMPOSITION BREAKDOWN

Property	Average	Stdev	Min	Max
Calories (kCal/100g)	177.60	50.82	68.97	300.00
Total Fat (%)	9.38	4.60	0.00	18.57
Total solids (%)	34.26	7.47	17.24	51.43
g/ Serving (2/3cup)	109.46	17.90	74.62	163.24
Density (lb/gal)	9.10	0.16	8.64	9.40
Overrun (%)	61.13	26.92	0.00	136.02
Saturated Fat (%)	4.81	3.90	0.00	14.75
Carboydrate (%)	23.19	4.50	9.88	30.00
Fiber (%)	1.59	2.02	0.00	6.90
Sugar (%)	16.37	4.59	1.30	24.82
Added Sugar (%)	11.63	8.61	0.00	24.82
Protein (%)	1.68	1.01	0.00	4.55



COMPOSITION BREAKDOWN

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DAIRY FREE VERSUS CONVENTIONAL

Property	Average	Edy's Classic Vanilla
Calories (kCal/100g)	177.60	197.67
Total Fat (%)	9.38	10.47
Total solids (%)	34.26	36.05
g/ Serving (2/3cup)	109.46	86.00
Density (lb/gal)	9.10	9.11
Overrun (%)	61.13	102.00
Saturated Fat (%)	4.81	6.98
Carbohydrate (%)	23.19	22.09
Fiber (%)	1.59	0.00
Sugar (%)	16.37	19.77
Added Sugar (%)	11.63	13.95
Protein (%)	1.68	3.49



DAIRY FREE VERSUS CONVENTIONAL

Property	Average	Edy's Classic Vanilla
Calories (kCal/100g)	177.60	197.67
Total Fat (%)	9.38	10.47
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Overrun (%)	61.13	102.00
Saturated Fat (%)	4.81	6.98
Carbohydrate (%)	23.19	22.09
Fiber (%)	1.59	0.00
Sugar (%)	16.37	19.77
Added Sugar (%)	11.63	13.95
Protein (%)	1.68	3.49



THE AVERAGE LABEL

Nutrition Facts

3 servings per container

Serving size 2/3 cup (109g)

Amount Per Serving

Calories 190

% Daily Value*

Total Fat 10g 13%

Saturated Fat 5g 25%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 0mg 0%

Total Carbohydrate 25g 9%

Dietary Fiber 2g 7%

Total Sugars 18g

Includes 13g Added Sugars 26%

Protein 2g 4%

Vitamin D 0mcg 0%

Calcium 0mg 0%

Iron 0mg 0%

Potassium 0mg 0%

*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.

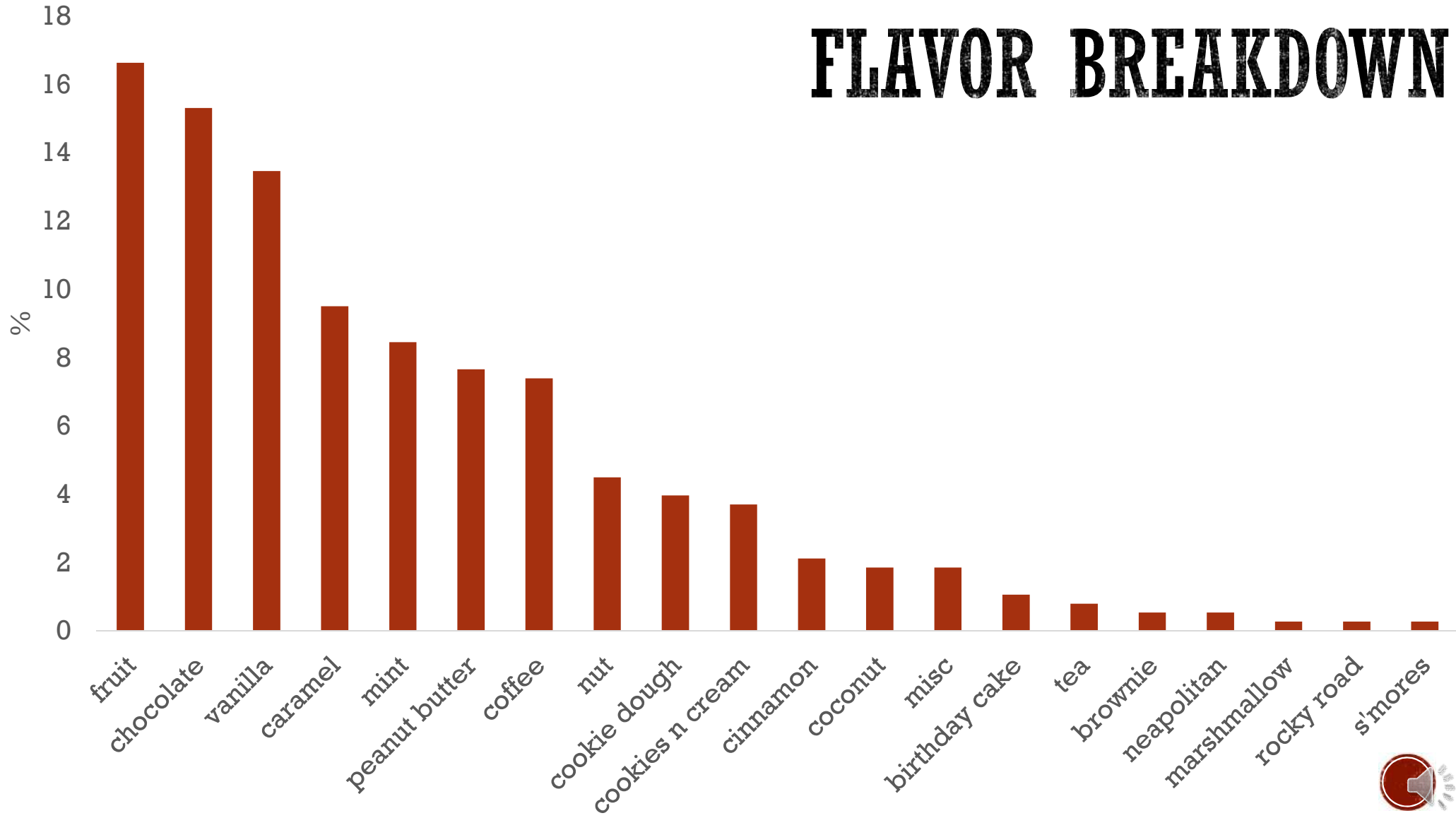
- Ingredients: coconut milk (coconut cream, water), cashew milk (cashews, water), cane sugar, coconut oil, pea protein concentrate, inulin, guar gum, sunflower lecithin.



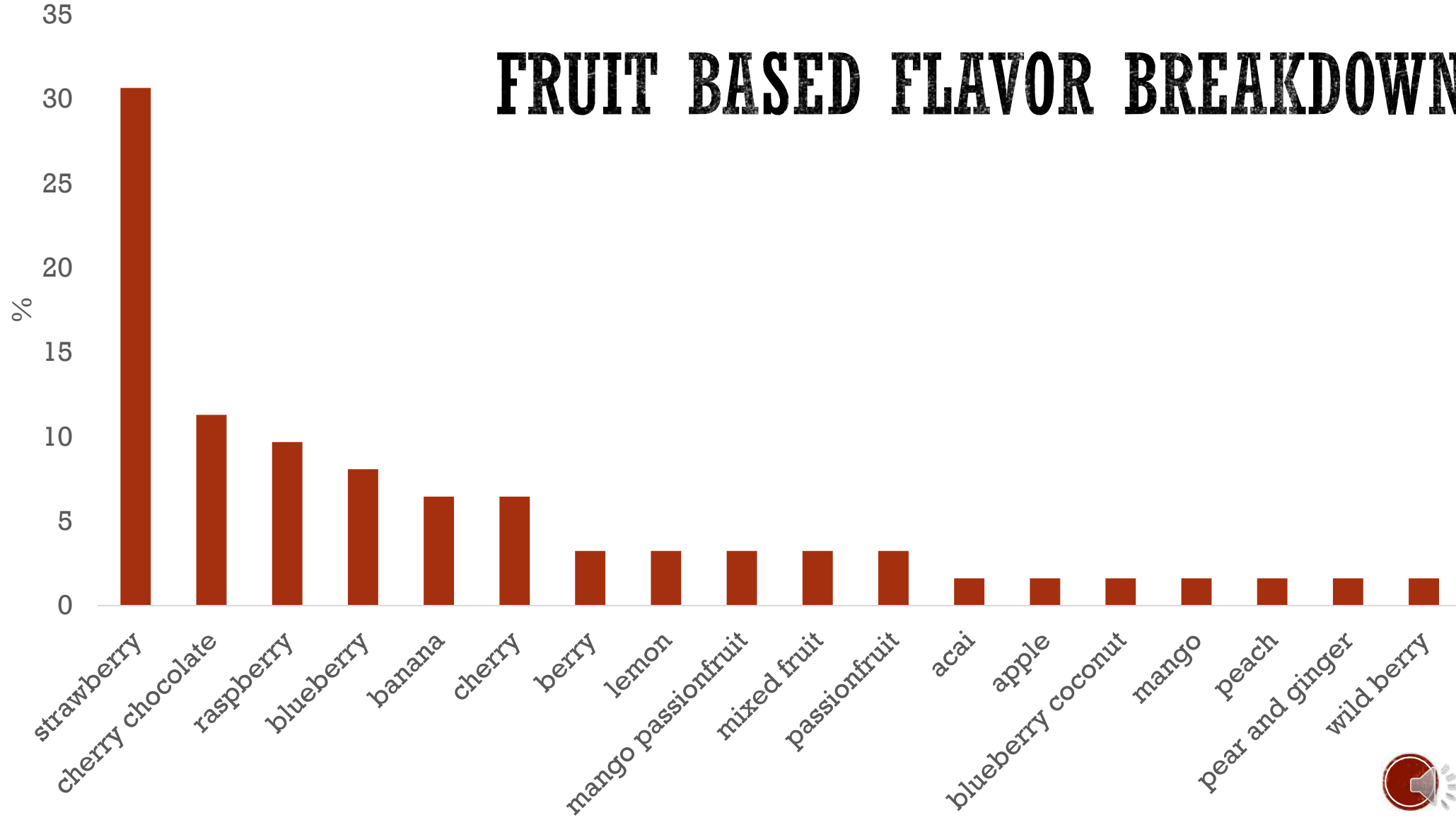
THE FLAVORS



FLAVOR BREAKDOWN



FRUIT BASED FLAVOR BREAKDOWN

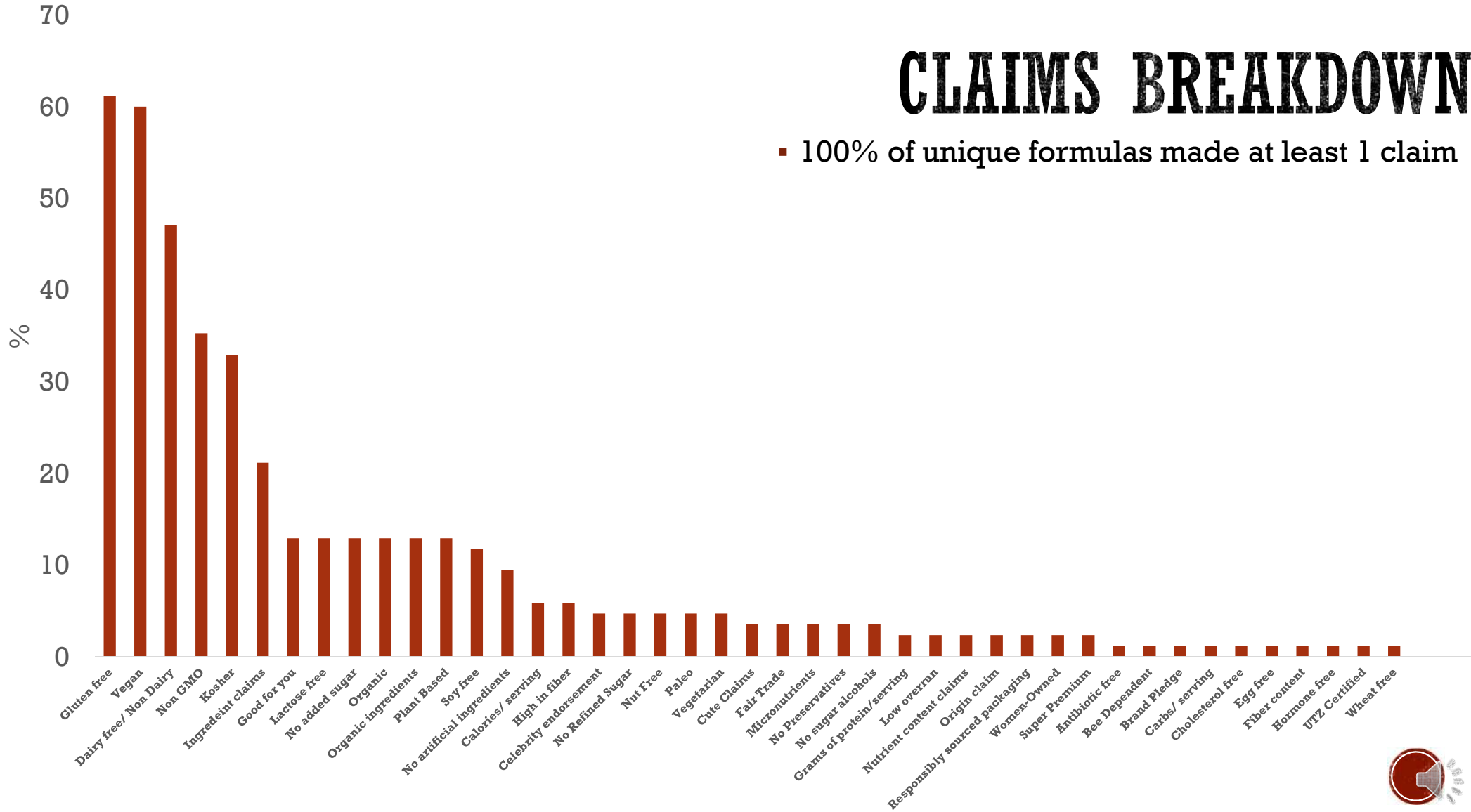


THE CLAIMS

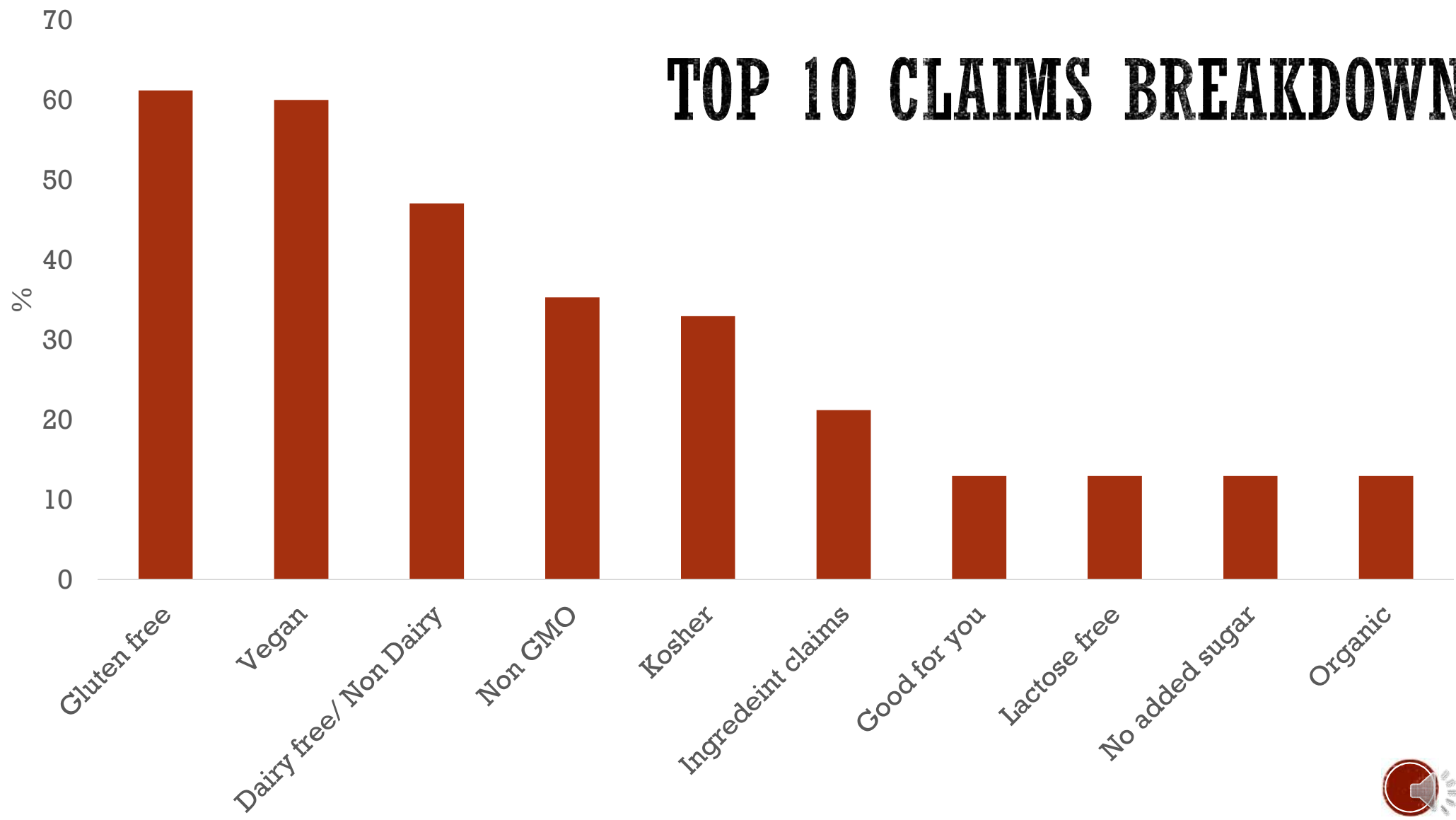


CLAIMS BREAKDOWN

■ 100% of unique formulas made at least 1 claim



TOP 10 CLAIMS BREAKDOWN



BOYZ II MEN CELEBRITY ENDORSEMENT?



PRODUCT CATEGORIES



“GOOD” FOR YOU



INGREDIENT CENTRIC

CHICKPEAS, BANANAS AND COCONUT CREAM
Coconut cream, banana and chickpeas give Nutty Caramel our creamiest texture yet

DATES
All of our flavors contains dates, which are high in healthy fibre and add both creaminess and sweetness

NATURAL FLAVORINGS
With natural flavorings of caramel - derived from grapes, vanilla and cardamom

NUTS
The distinct nutty taste comes from our blend of roasted nuts (macadamia nuts, hazelnuts and peanuts)

Vegan
Although creamy in texture Frill is vegan and contains very little fat



TARGETED DIET: PALEO FRIENDLY





INDULGENT



QUESTIONS?

Please leave questions or comments in the survey following this presentation

