

The Fact of the Matter
The Facts are in the Nutritional Panel

Global Fats & Oils Conference
September 13, 2007
Las Vegas, Nevada
Marjorie Gilbert

Agenda

- Consumers are the ultimate decision makers.
- What is important to consumers on the package?
- Meeting expectations while meeting regulatory challenges
- Technology advances for Reducing Trans & Sats
- Future?!?

What do consumers want?

- First & foremost taste is still king!
- *Above all else* if a product does not meet expectations they will not buy it again.
- After knowing what they like, what do they want?

Consumer Messages



Growth Hormones

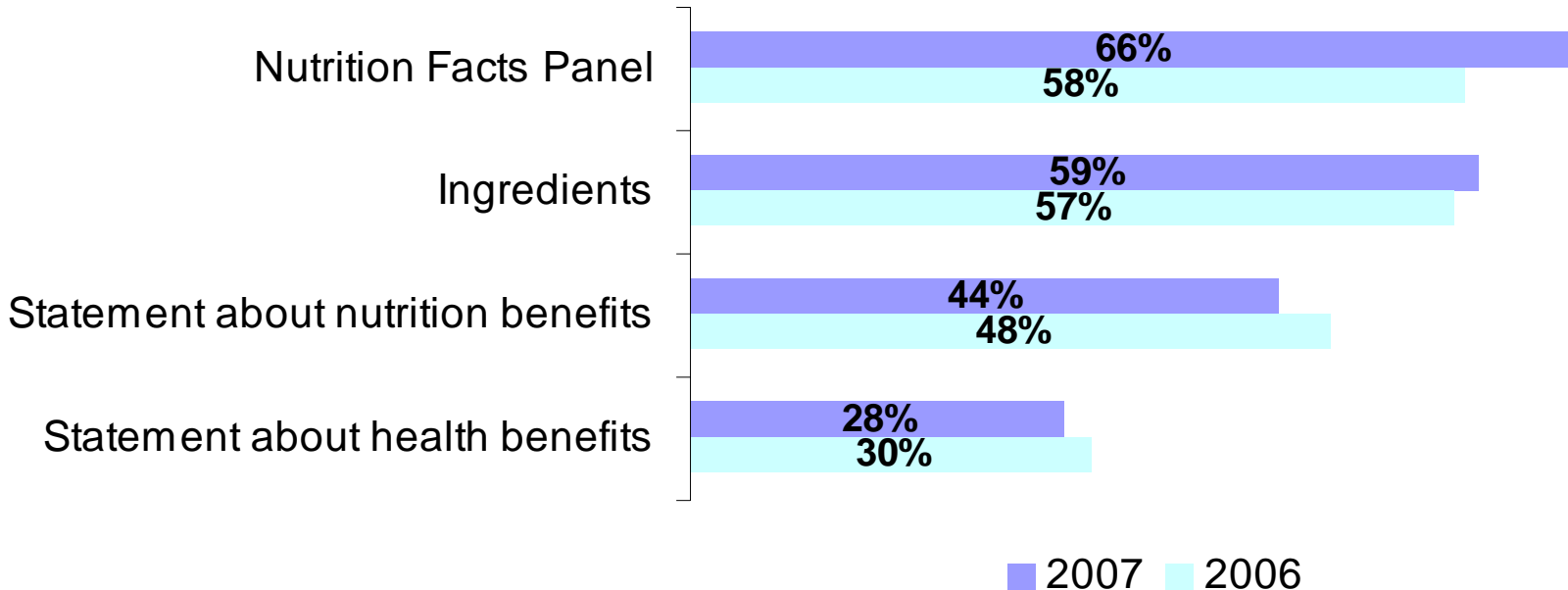


"Natural"

Sugar-free

How do consumers use product labels?

What information do you use on the package when deciding to purchase or eat a food or beverage?



Source: 2007 IFIC Foundation Food & Health Survey

Where is the nutrition focus - 2007?

1. Total Calories
2. Total Fat
3. Trans Fat (in 2006 #10)
4. Sugars
5. Sodium
6. Saturated Fat

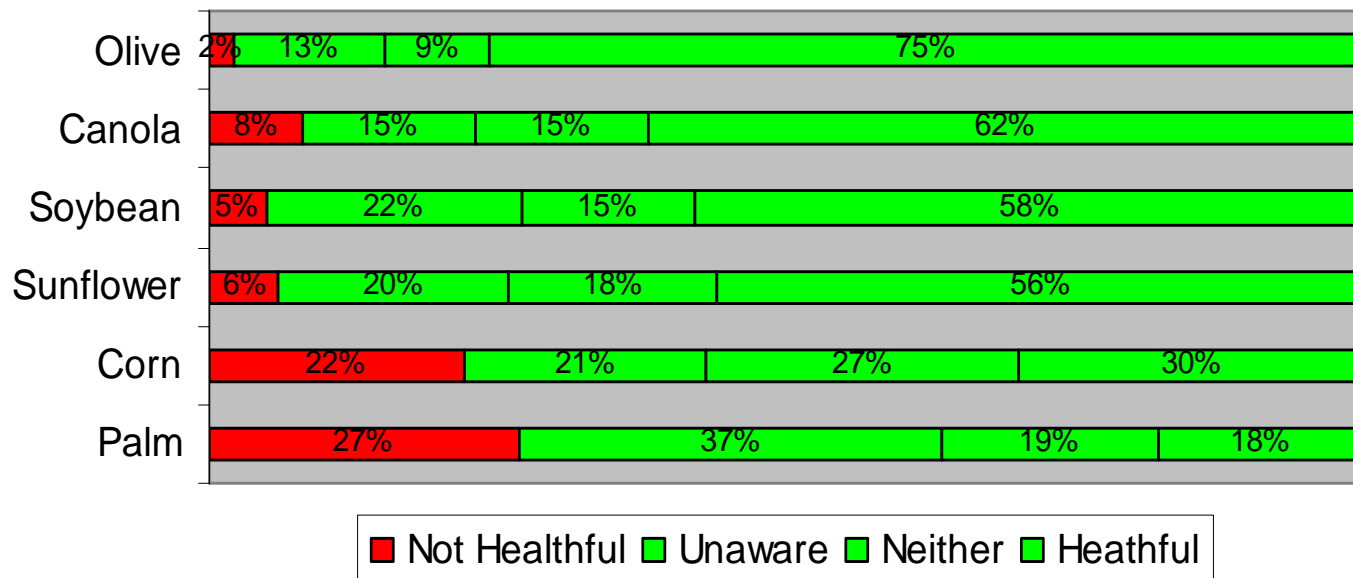
Challenges of Reformulating For The Nutrition Facts Panel

- **Consumer Friendly Label**
- Achieving Trans Target (<0.5g/Serving)
- Controlling Saturated Fat
- Product identity – the Same as Before!
- Controlling Cost



What do consumers think about Palm Oil?

How would you rate the healthfulness of the following oils?



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Palm Oil Attributes

Non GMO

High in mono-unsaturates (40%)

Contains Essential Fatty Acids (10% 18:2)

Zero trans

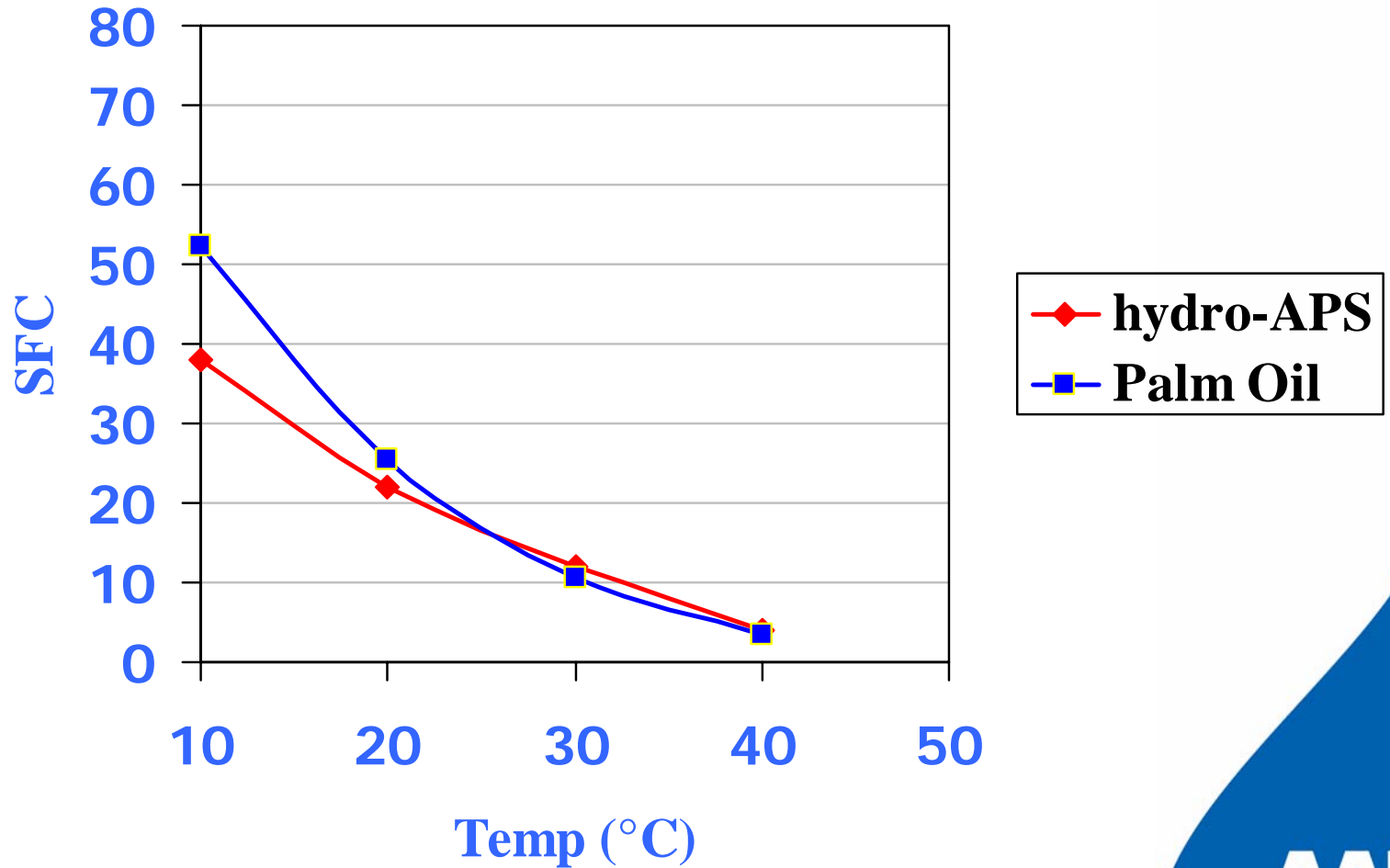
Excellent Source of Vitamin E

Good Source of Carotenoids

Easily fractionated to yield functional components

Source of solid fat (without hydro)

Palm Oil is a Logical Alternative to Hydro Fats



Before & after trans

**PARTIALLY
HYDROGENATED
VEGETABLE OIL
(COTTONSEED, SOY
BEAN OR PALM)**

Nutrition Facts	
Serving Size 6 pieces (57g)	
Servings Per Container 1	
Amount Per Serving	
Calories 270	Calories from Fat 120
% Daily Value*	
Total Fat 13g	20%
Saturated Fat 2.5g	13% ↑
Trans Fat 1.5g	←
Cholesterol 0mg	0%
Sodium 65mg	3%
Total Carbohydrate 34g	11%
Dietary Fiber 2g	10%
Sugars 23g	
Protein 6g	
Vitamin A 0%	• Vitamin C 0%
Calcium 2%	• Iron 4%
Niacin 15%	
*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Saturated Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9 • Carbohydrate 4 • Protein 4	

Nutrition Facts	
Serving Size 6 pieces (57g)	
Servings Per Container 1	
Amount Per Serving	
Calories 270	Calories from Fat 130
% Daily Value*	
Total Fat 14g	22%
Saturated Fat 6g	32% ↑
Trans Fat 0g	←
Cholesterol 0mg	0%
Sodium 90mg	4%
Total Carbohydrate 35g	12%
Dietary Fiber 2g	10%
Sugars 24g	
Protein 5g	
Vitamin A 0%	• Vitamin C 0%
Calcium 2%	• Iron 4%
Niacin 10%	
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PALM OIL

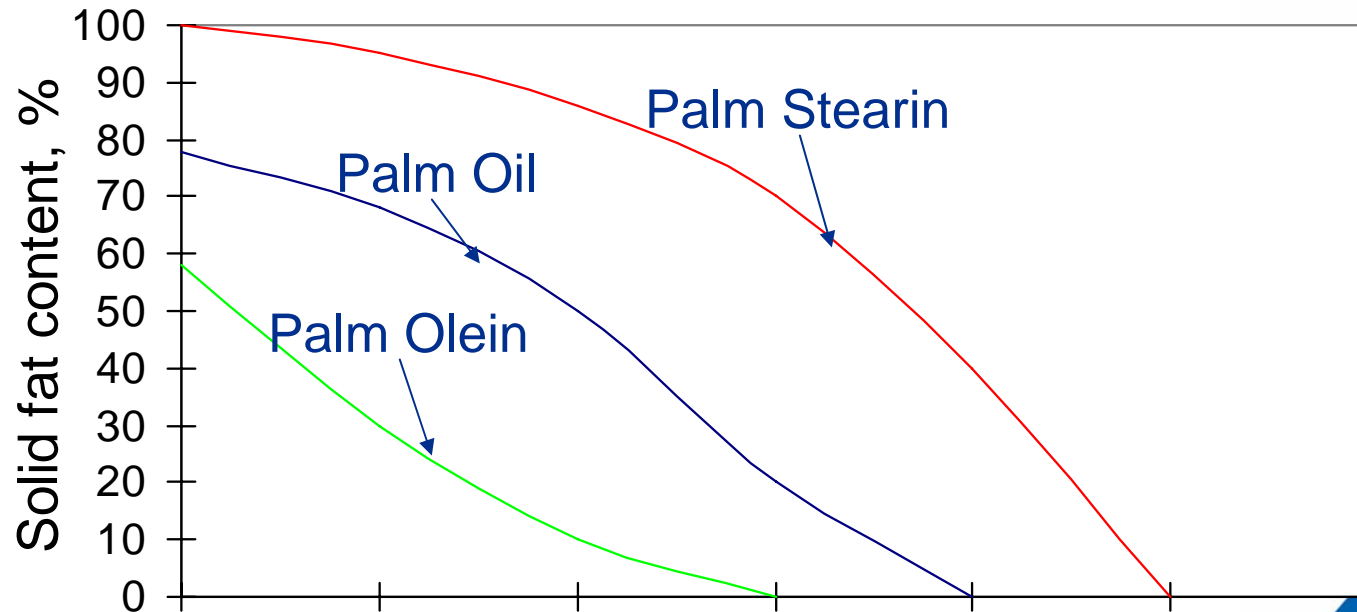
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Solids of fractionated oils

Measured by pNMR



Blending

Another Approach

Blends of liquid oil with highly functional solid components derived from palm and palm kernel oils yield highly functional shortenings that are both trans free with reduced saturates!!



After Sat Reduction

PALM OIL

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Cholesterol 0mg	0%
Sodium 90mg	4%
Total Carbohydrate 35g	12%
Dietary Fiber 2g	10%
Sugars 24g	
Protein 5g	
Vitamin A 0%	• Vitamin C 0%
Calcium 2%	• Iron 4%
Niacin 10%	
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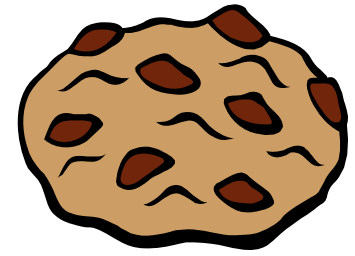
Vegetable Oil Blend
(Liquid Oil, Palm Oil,
Palm Kernel Oil)

Sandwich Cookies



	<u>Traditional</u> Hydrogenated Fat	<u>Trans Free</u> Palm Oil	<u>Trans Free & Reduced Sats</u> Blended Oil System
Nutrition Facts			
Serving Size (g)	32	32	32
Calories from Fat	60.3	60.3	60.3
Total Fat (g)	6.7	6.7	6.7
Sat Fat (g)	1.28	3.35	1.34
Trans Fat (g)	1.87	0	0
Total Sats + Trans	3.15	3.35	1.34

Chocolate Chip Cookies

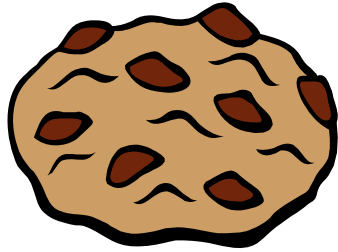


	<u>Traditional</u>	<u>Trans Free</u>	<u>Trans Free & Reduced Sats</u>
Nutrition Facts	Hydrogenated Fat	Palm Oil	Blended Oil System
Serving Size (g)	39	39	39
Calories from Fat	80	80	80
Total Fat (g)	9	9	9
Sat Fat (g)	3	5	3
Trans Fat (g)	2	0	0
Total Sats + Trans	5	5	3

Challenges of Reformulating For The Nutrition Facts Panel


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Cookie Score Sheet

One-for-one shortening replacement

	Control	 86-33
Symmetry	Normal	Normal
Crust Character	Good	Better
Crust Color	Golden & uniform	Golden & uniform
Texture	Crisp	Crisp
Aroma/Flavor	Typical	Typical
Wt. 4 cookies (g)	78.1	77.6
Dia. 4 cookies (cm)	24.5	24.5
Height 4 cookies (cm)	5.5	5.6
Spread ratio	4.5	4.4

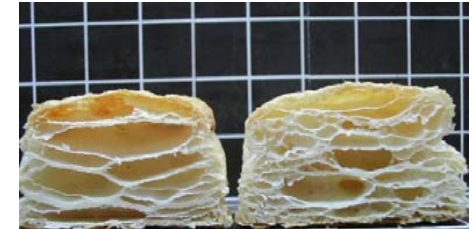
No Trans Bakery Solutions



Pie Shells



Wire-Cut Cookies



Puff Pastry



Rotary-molded Cookies



Biscuits



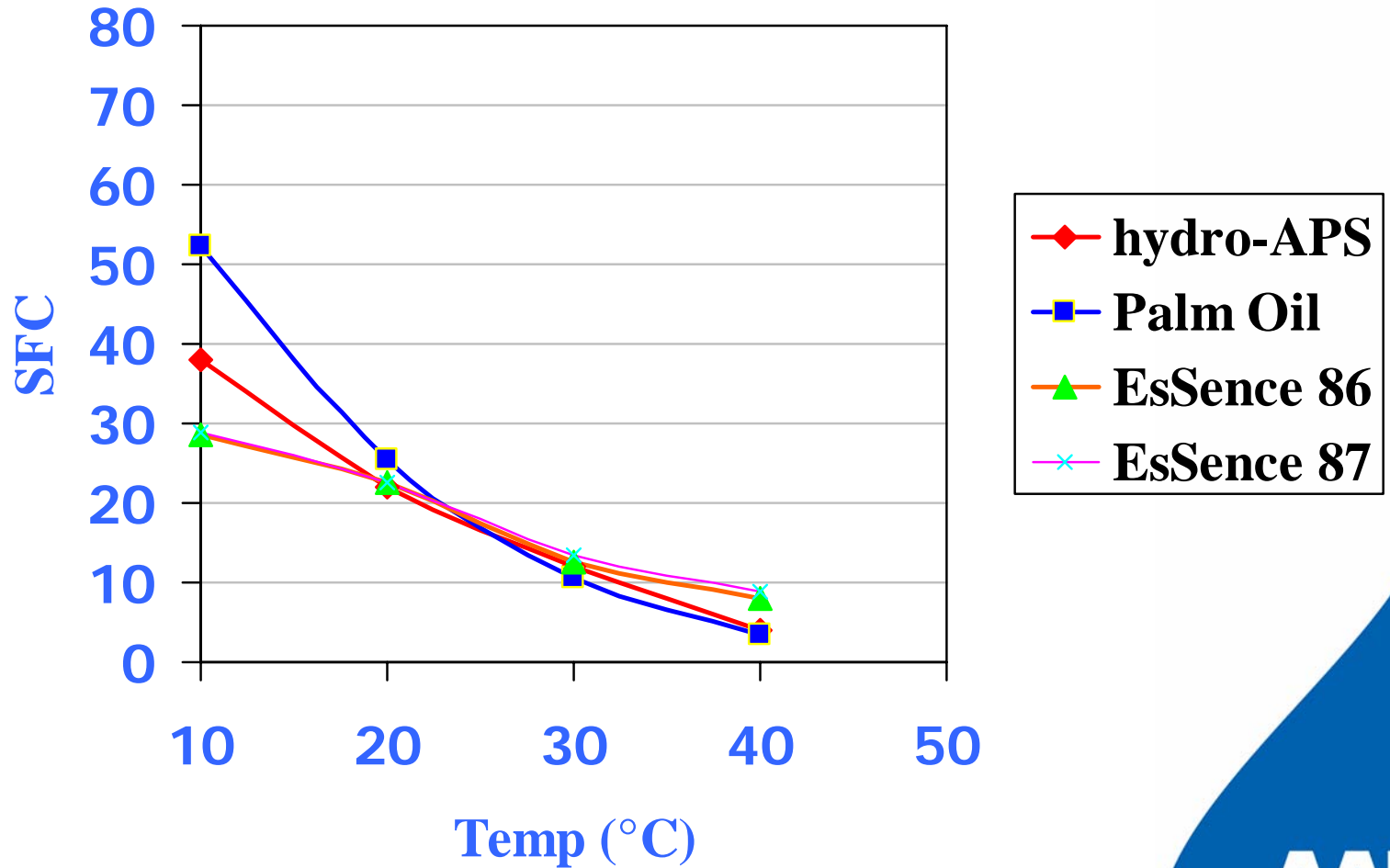
Donuts

Challenges of Reformulating For The Nutrition Facts Panel

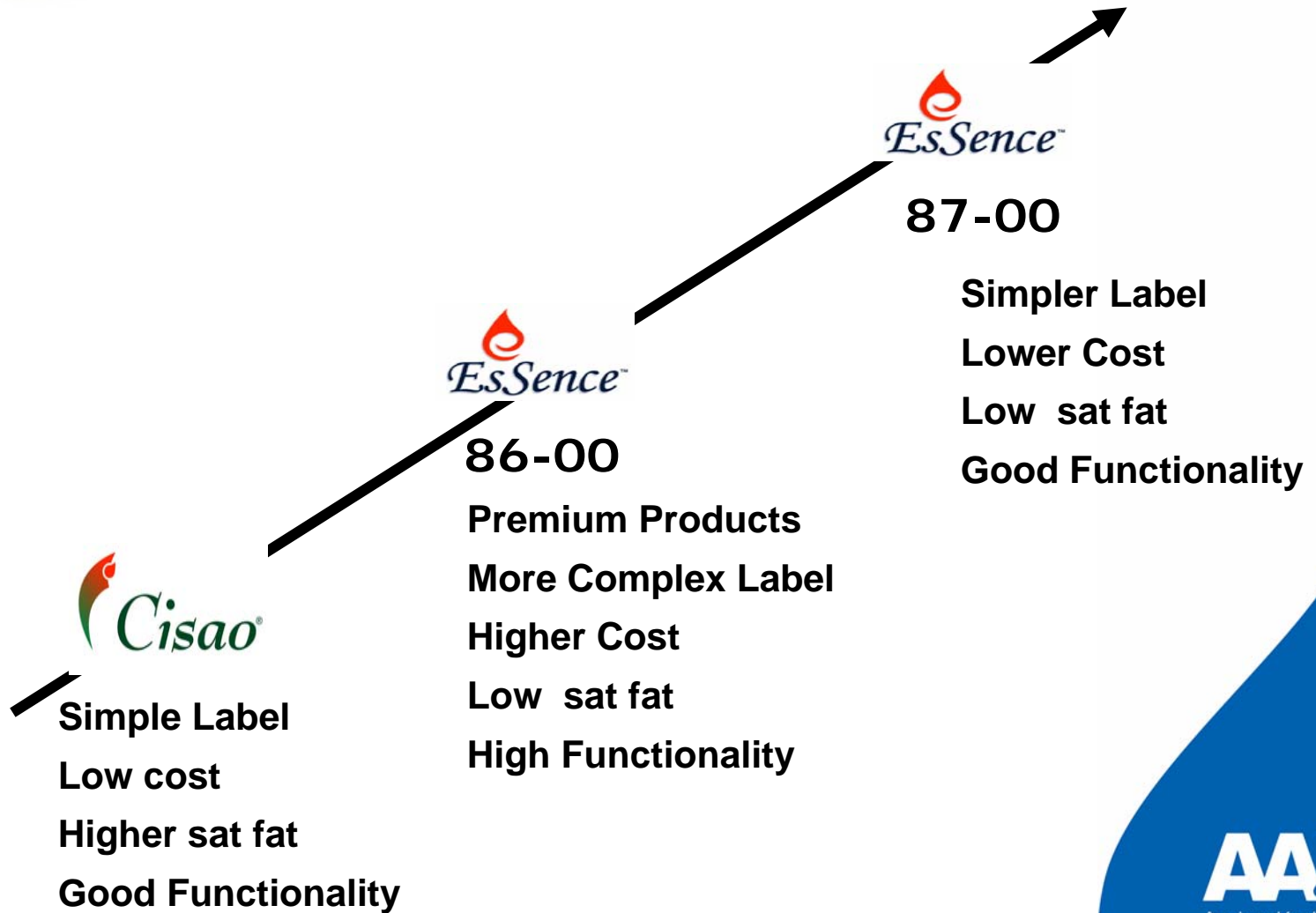
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Next Generation Oil Solutions

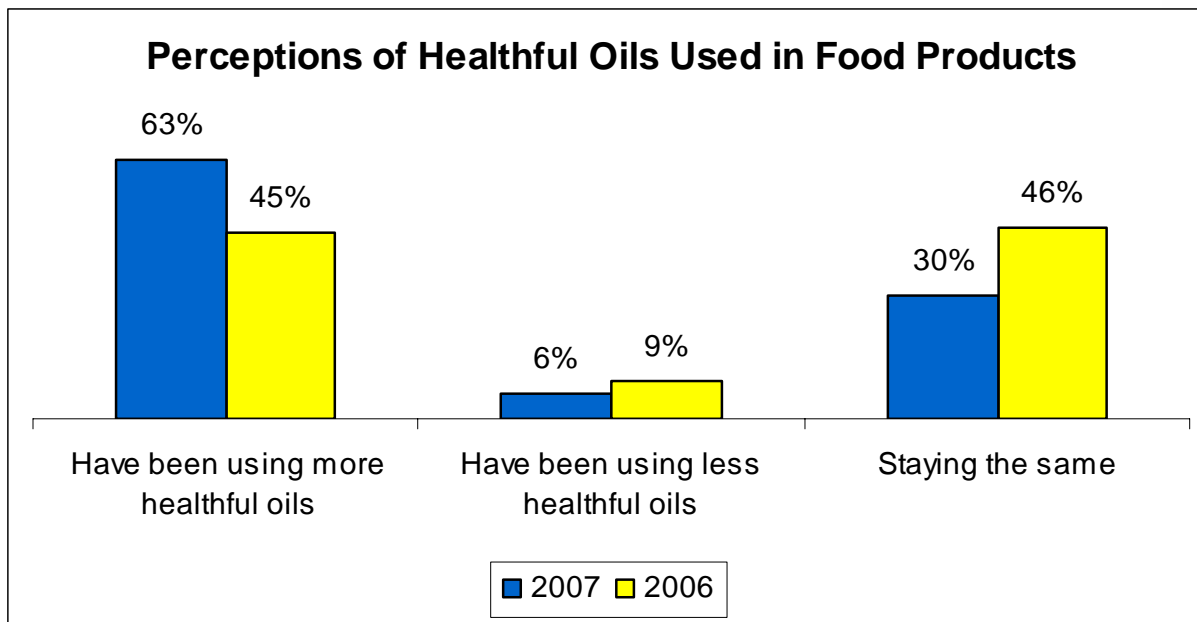


Product Evolution



The Good News in 2007

- Consumers feel the industry doing a good job!



What's Next

Our view of “Healthy Oil” has evolved and will continue to evolve.

Palm oil has many healthy attributes and has emerged as a *trans* fat replacement.

A fat with a “healthy profile” is not sufficient. It must also provide the functionality demanded by the specific application.

Blending liquid oils with functional solid components is one way to bring together health and functionality.

Other Solutions For Reducing Trans Fat

1. Modification of traditional hydro process.
2. Interesterification (Liquid Oil + FH Component)
3. Trait enhanced oils.
4. Utilization of fats naturally rich in solids: palm & palm kernel oils and fractions.
5. ?!?!?

Is this possible in the future?

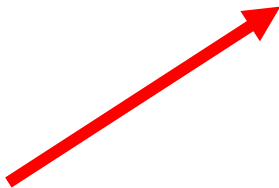
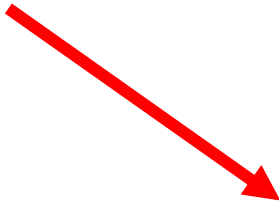
Nutritional Facts

Serving Size 27 crackers (30 g)
Servings per Container about 15

Amount Per Serving

Calories 160 Calories from fat 80

	% Daily Value *
Total Fat 8 g	12%
Saturated Fat 2 g	10%
Trans Fat 5g	
Mono 1g	
Poly 1g	
Stearic acid 3%	
Palmitic acid 2%	
Cholesterol 0mg	0%
Sodium 240mg	10%
Total Carbohydrate 16g	5%
Dietary Fiber less than 1 g	3%
Sugars less than 1 g	
Protein 4g	



Or this??

- Warning Labels?

“Consumption of this product may cause premature death due to heart disease”

- Detailed Ingredient Label

“Caustic refined, hexane extracted, heat bleached, enzymatically interesterified, sustainably grown palm oil”

What can we do?

- Education
- Clean Labels “Pantry Ingredients”
- Continue to Work together as suppliers on product & process innovation
- Not vilify any one oil, fatty acid or process
- Focus on the positive!

In Summary

Consumers are the ultimate audience for our products. They are becoming more aware and concerned about the nutritional impact of the foods they eat and serve their families.

Products formulated with palm oil can have nutrition facts panels that meet consumers needs.

As consumers needs evolve our products must as well.



Thank You!


Confao

Cebes[®]



EsSence[™]


Cisao[®]

ILLEXAO[™]

AAK
AarhusKarlshamn