

CORVUS | BLUE

presents:



CASHEWS FOR COMPETITIVE ADVANTAGE: *How Science & Art can Help*

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Mövenpick Ambassador Hotel & Hotel Novotel
Accra, Ghana
16-19 September 2013

Key Take-Aways

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EMERGING
TRENDS



EMERGING
SCIENCE



NEW
PRODUCTS

- Cashews are poised to meet the **growing global demand** for **healthy low-glycemic foods** that can delight everyone
- The **glycemic response** of foods is **growing in importance** around the world for **managing hunger & managing weight**
- **Satiety** is a key attribute of foods for health and pleasure
- Contrary to popular myth, energy dense foods like **cashews are useful** in the diet for **managing hunger, weight, and calories**
- **Functionality and versatility** make cashews **invaluable** in practically every food category in all regions of the world



Evolving Food Culture & How People Eat

The Global Paradigm Shift: Cooking vs. Assembling

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FROM COOK



TO SHOPPER

WE EAT MORE OFTEN & OFTEN ALONE

As cooks, we:

- Shopped for ingredients
- Planned our meals
- Stocked our pantries
- Preserved seasonal foods
- Encouraged family meals

As diners, we:

- Shop for meals and deals
- Spontaneous vs. planned
- Stock our refrigerators
- Buy preserved foods
- Foster independent eating

- **WHO:** Everybody eats! But who is your audience?
- **WHEN:** Planned? Spontaneous? Holiday? Ritual? Time?
- **WHERE:** At home? In the office? On the go?
- **WHAT:** The relevant need? The primary product design
- **WHY:** The emotional stakes? The story of your product!



Eating: Reasons and Occasions

The Many Faces of Snacking

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AS A PROBLEM

- Mindless snacking
- High calorie snacks
- More eating occasions
- Highly fabricated
- Perceived as low quality



AS A SOLUTION

- Healthy morsels
- Portion-sized eating
- Regulate energy levels, metabolism, & cravings
- High quality whole foods, less fabricated

The definition of snacking has changed substantially in the last two decades

- No longer regarded as “special”
- More frequent than occasional; almost ubiquitous
- No longer just for children; EVERYBODY is snacking
- No longer confined to only a small number of product categories; *every meal poised to be a snack!*

Healthy snacks are driving growth in retail



Healthy snacking industry trends

- **Lower junk calories:** fat reduction, baking, popping
- **Nutrient benefits:** protein, fiber, probiotic, omega, healthy fats
- **Energy-rich:** caffeine, vitamins, amino acids
- **Ingredients:** nuts, whole grain, oats, legumes
- **Clean labels:** natural, organic, non-GMO, kosher, vegan, gluten-free

Major brands struggle to meet consumer demands without antagonizing core products and consumers

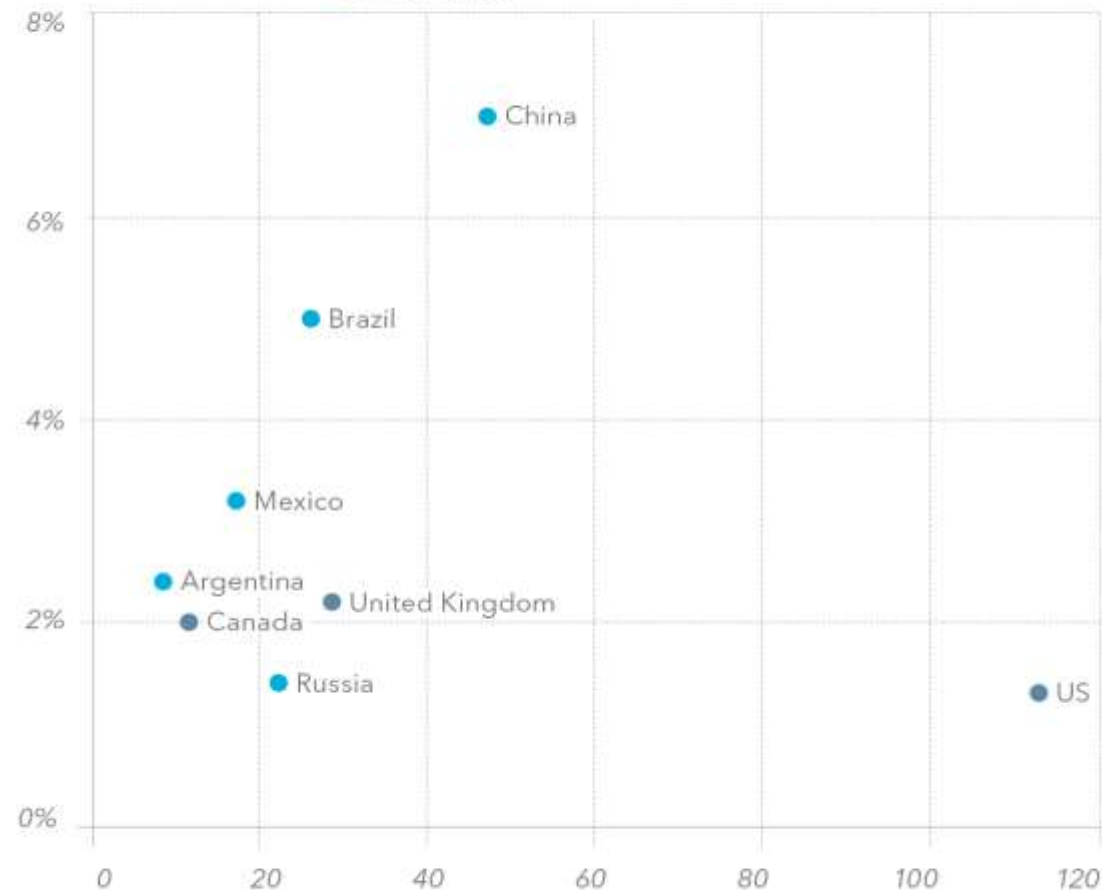
Growth Prospects in the Global Snacking Products Arena 2012–2017

Most Attractive Snack Food Markets

Growth forecast % CAGR 2012–2017
US\$ bn, retail value

% CAGR 2012–2017

- Developed
- Developing



Market Size 2012, US\$ bn RSP

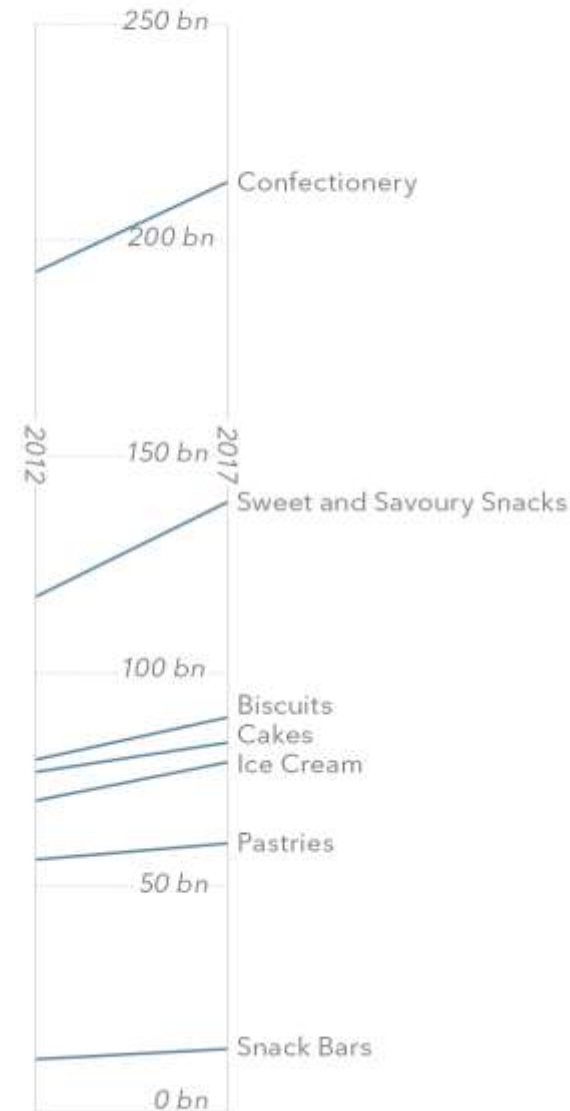
Note: Market size for each country shown above is the sum of snacking products categories: Biscuits, Cakes, Confectionery, Pastry, Snack Bars and Sweet and Savoury Snacks for 2012



India

Snack Food Categories

Global Market Size Forecast
US\$ bn, retail value 2012–2017



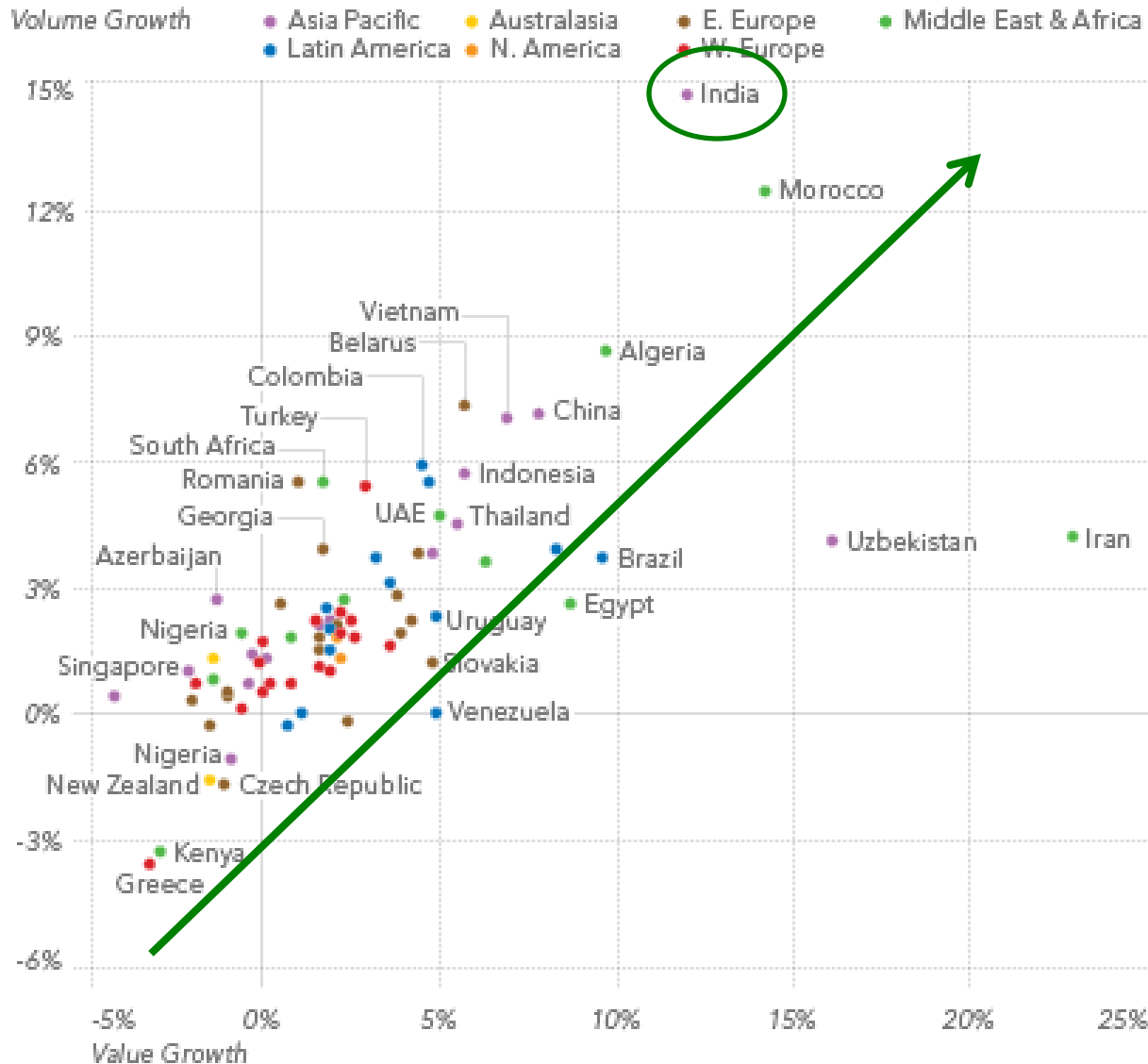
Asia Pacific: The New Home of Snacking



Snacking Culture Flourishes in Asia

Sweet and Savoury Snacks, 2012-2013

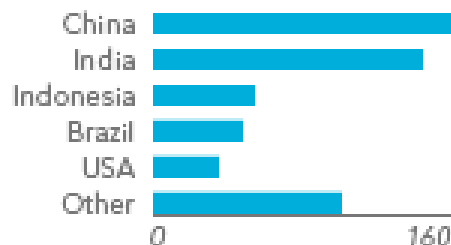
volume: kg per cap. value: US\$ per cap (2013 ex rates)



China and India Dominate Future Growth

Extruded Snacks, 2013-2018

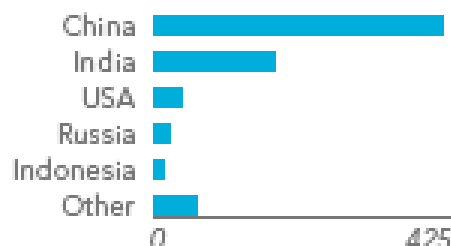
retail volume growth, '000 tonnes



China's Love of Jerky Drives Global Demand

Other Sweet and Savoury Snacks, 2013-2018

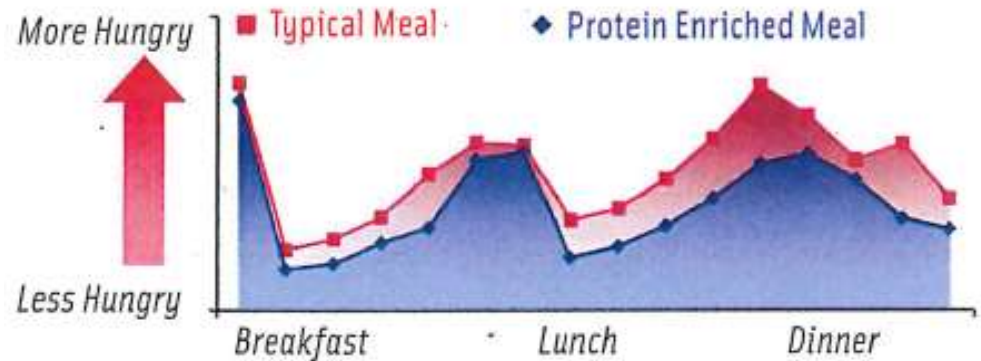
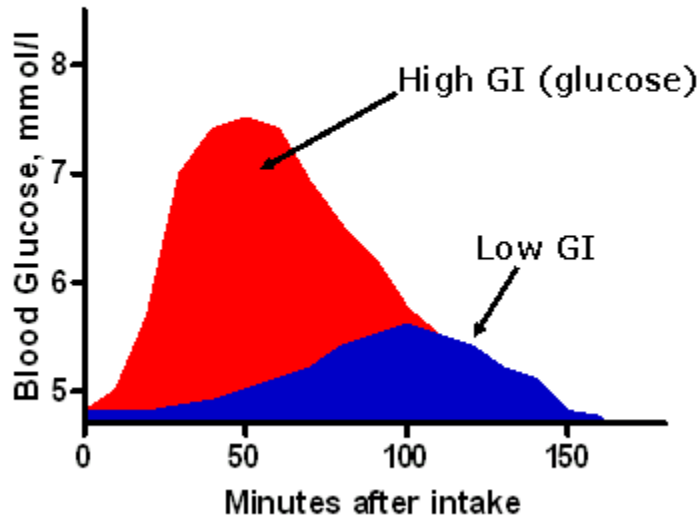
retail volume growth, '000 tonnes





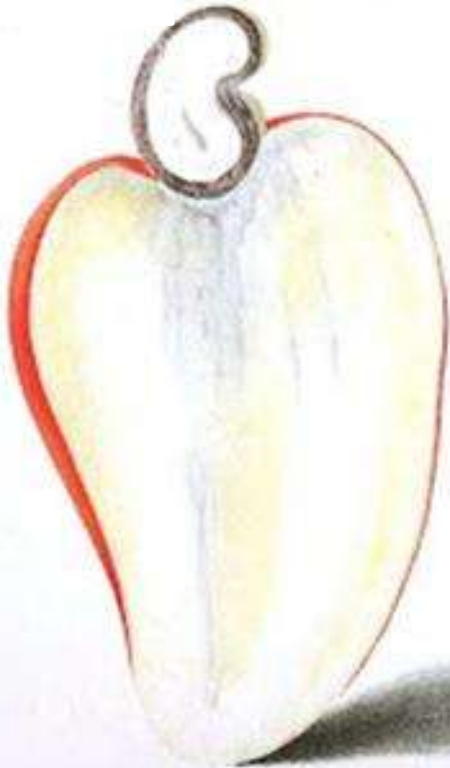
Product Expressions
Wellness, Functional & Free-from Foods

Glycemic Index



Cashew Nuts Are Cracking Big Time!

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**Versatility fosters product applications;
nutritional profile endears cashews to
consumers everywhere!**

Cashews at a Glance

Nutrient rich
Heart healthy fats
Revered world-wide
Satisfying hunger-abating fiber
Low-glycemic
Gluten-free protein

Flavorful, but not overpowering
Versatile taste & delicate texture
Crunchy, yet soft and smooth
A range of forms & derivatives
Robust shelf-life: raw or prepared



WHOLE OR BROKEN
RAW OR PREPARED

Snacks - savory & sweet
Nutrition / meal replacement bars
Confectionery
Medical foods & supplements
Soups, gravies, stews, & sauces
Prepared foods & beverages

Increases glycolysis
Improves blood lipid profile
Stimulates glucose uptake
Anti-inflammatory properties
Suppresses cell proliferation

FORMS & TEXTURES



PRODUCT POTENTIAL



Good News for African Cashews

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- Cashews + chocolate = permissible indulgence (now EFSA approved)
- EFSA's positive opinion on the blood flow support by cocoa powder or dark chocolate is a call to cashew producers to explore dark chocolate product possibilities with specific health claims.
- Cashews' enhanced health appeal will create more opportunities for indulgent foods with cashews and draw more fans.
- There are opportunities galore for cashews—whole, broken, and derivatives!

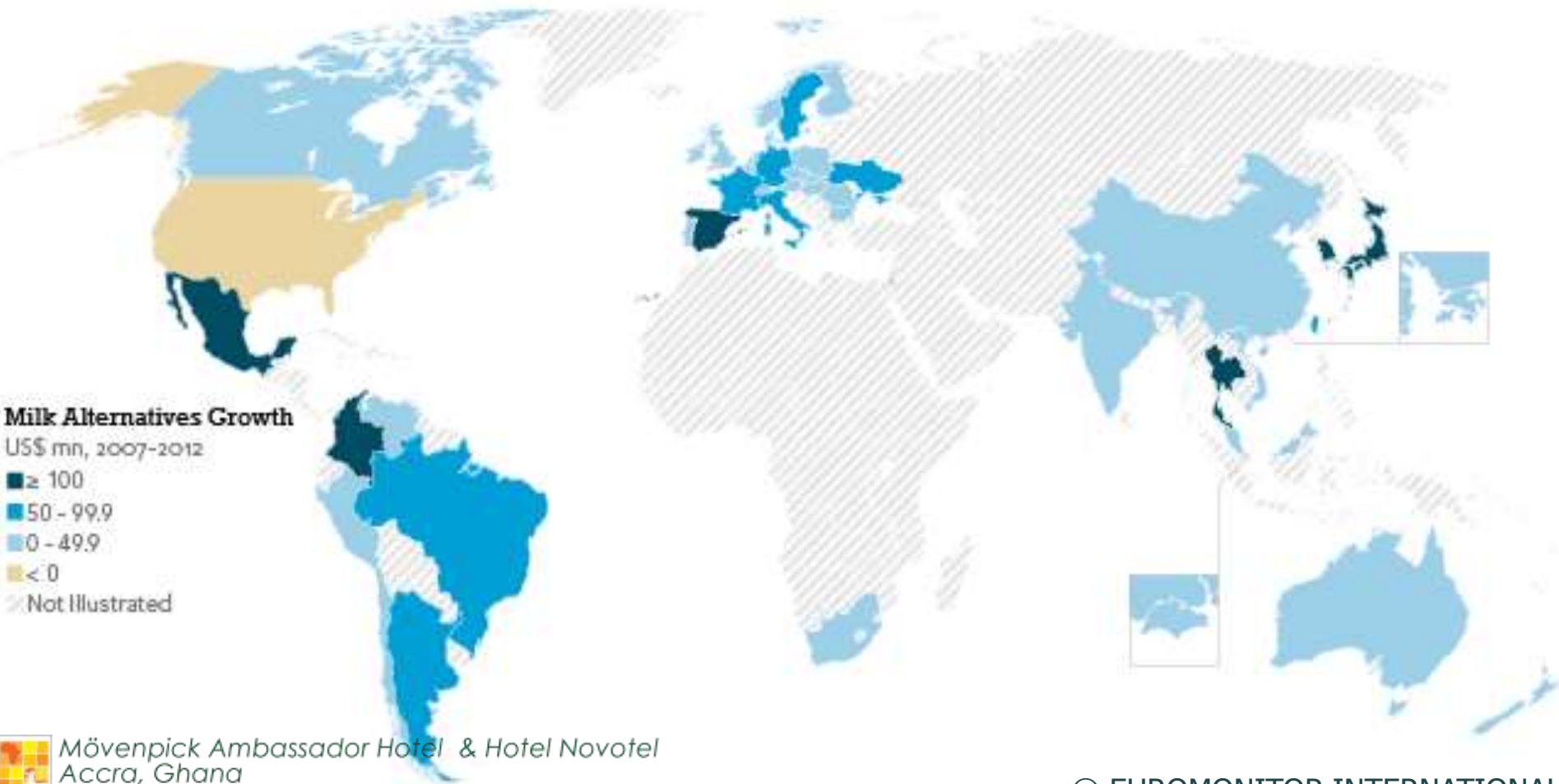


A Bright Future for Cashew Milk

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DATAGRAPHIC HEALTH AND WELLNESS

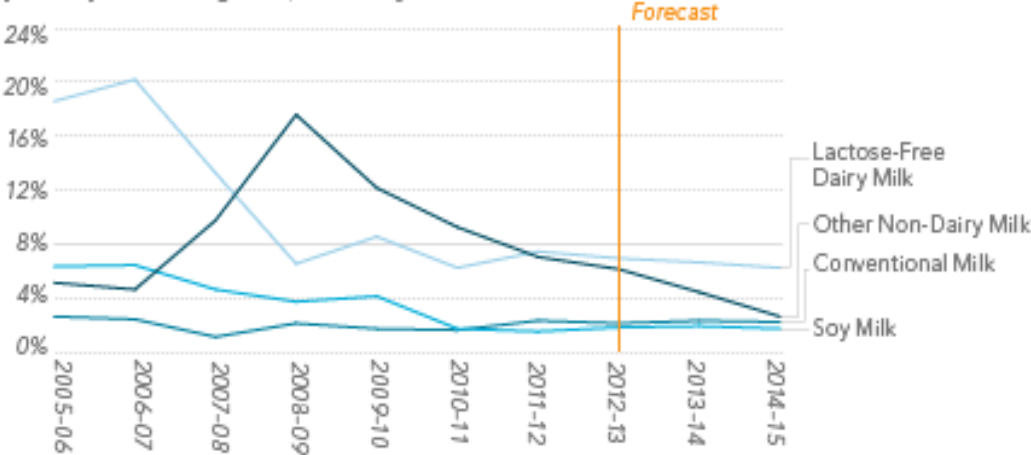
Demand for Milk Alternatives Outpacing Conventional Milk



Other Non-Dairy Milk Exceeds Soy Milk

HW Milk and Dairy Growth

year-on-year volume growth, 2006-2015



Almonds Shows Strongest Growth

Production of Raw Ingredients Growth

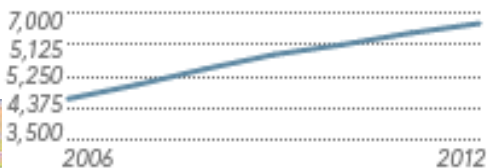
tonnes, 2007-2011 year-on-year



Milk Alternatives Near US\$7 bn

Global Non-Dairy Milk Retail Value

US\$ million, fixed exchange rate, 2006-2012



Oatly's in The Lead

Non-Dairy Milk Excluding Soy

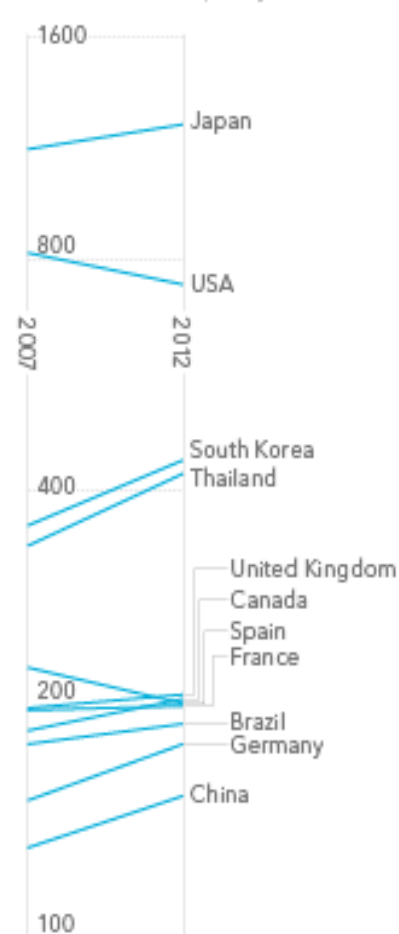
retail value US\$ mn, 2010



US Moves Away From Soy

Top 11 HW Soy Milk Markets

retail sales US\$ mn, 2007/2012



Note: This chart is using a logarithmic scale with a base of 2

Non-Dairy Milk Takes Root

A rising prevalence of food allergies and intolerances is key to the success of non-dairy milk. Cereal and nut-based products, eg oat, hazelnut, almond and rice milk, will continue to gain share from soy milk. While oat milk leads the way other variants are fast gaining interest.





**Opportunities for African Cashews:
Health | Pleasure | Substitutes | Innovation**

For the Health of it!

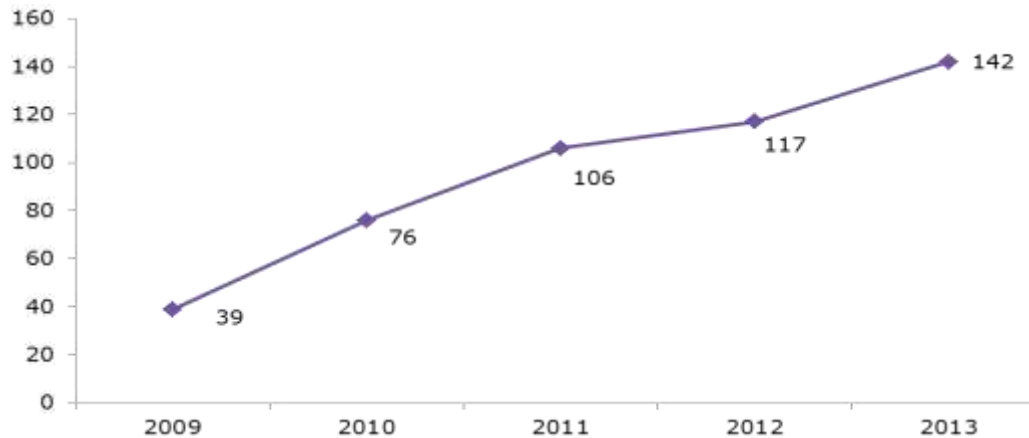
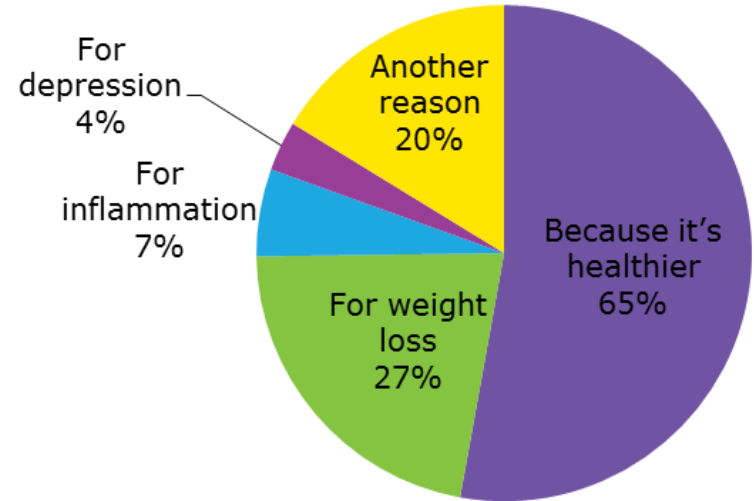
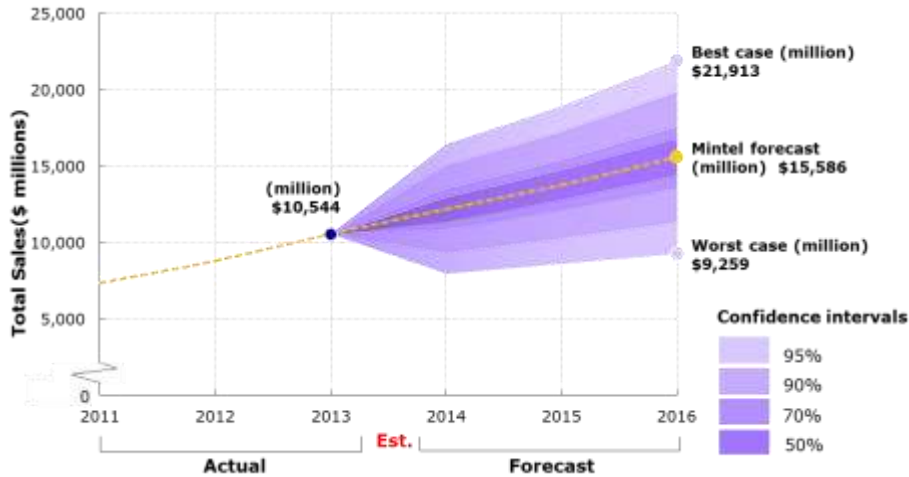
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Natural | No preservatives | Low cholesterol | Organic | Non-GMO | Fiber
| No trans-fats | Gluten-free | Heart health | Antioxidant | Energy/
alertness | Low-glycemic index | Prebiotic | Protein | Satiety | Minerals


Global Gluten-Free

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Targeting the Health Conscious

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NUT•rition. Built for the South Beach Diet.

Planters NUT•rition South Beach Diet Recommended Mix is a savory blend of nuts recommended by the South Beach Diet. So you can enjoy the lightly salted cashews, almonds and macadamias as you count the hours to bikini weather.




Contains 50% less sodium than Planters Mixed Nuts.
©2007 Kraft Foods.



NUT•rition. Built for Heart Health.

Planters NUT•rition Heart Healthy Mix helps promote heart health with a delicious mix of peanuts, almonds, pistachios, pecans, walnuts and hazelnuts. That's news you can love with all your you know what.



©2007 Kraft Foods.

Pure Pleasure

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Innovation

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USA: Filtered water, evaporated cane syrup, nuts (almonds, cashews, hazelnuts), inulin, tricalcium phosphate, soy lecithin, carrageenan, natural flavors, sea salt, gellan gum, vitamin E (D-alpha tocopheryl acetate), vitamin A palmitate, vitamin D2, vitamin B12.

www.tastethedream.com



AUSTRALIA: Cashew nuts (35%), canola oil, sun-dried tomatoes (preservative (E220, E202), capsicum (14%), white vinegar, sweet chilli sauce (4%) [(thickener (E1422)], parmesan cheese (4%) (contains milk), garlic, salt, herbs and spices.

www.menora.com.au



UK: Filtered water, raw agave syrup*, cashew nuts* vanilla extract* 0.07%. *Organically grown ingredient

www.boojabooja.com

Popular Innovations

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USA: Filtered water, organic cashews, organic agave nectar, organic cinnamon, organic vanilla extract, organic vanilla specks

www.blueprint.com



USA: Filtered Water, Carrots, Cane Sugar, Corn, Starch, Organic Cashews, Sea Salt, Roasted Garlic, Ginger Puree (Ginger, Citric Acid), Onion Powder, Spices

www.pacificfoods.com



USA: Cashews, dates, vanilla, coconut oil, nutmeg, salt and chia seeds

www.lulitonix.com

Innovation in the Pipeline

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USA: Fresh raw cashews, bell pepper, coconut aminos, bio-available lysine, sea salt, spices & active cultures

www.theculturedkitchen.net



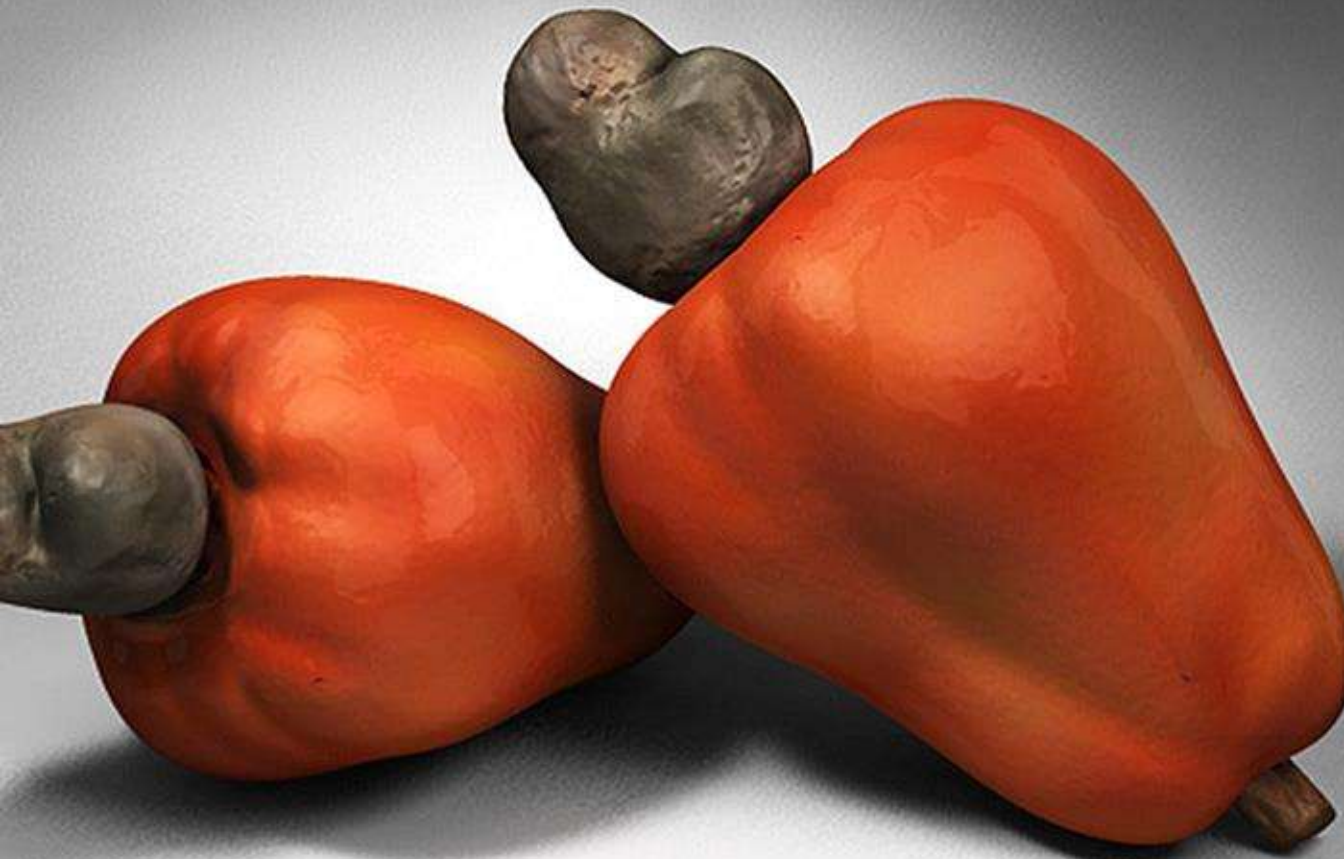
USA: Purified Water, Nut Blend* (Almonds & Cashews)*, Natural Flavorings, Sea Salt, Bicarbonate Soda.
*Organic

www.mimiccreme.com



UK: Filtered water, raw agave syrup*, cashew nuts* vanilla extract* 0.07%.
*Organically grown ingredient

www.lulitonix.com



**The anti-obesity
effects of
cashew:**

- Flavor
- Satiety
- Energy density

Digestive Functionality of Cashews

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Cashews can affect hunger and satiety in various ways:

- Proteins often enhance satiety
- Carbohydrates have a lower satiety value than fats, but low glycemic carbohydrates are very satisfying
- Fiber and bulky foods provide a sense of satiety
- Solid foods: more filling than semisolids or liquids
- Energy density: a major factor in determining satiety

Satiation/satiety may be induced by:

- Viscosity:
 - ✓ Slow down enzyme digestion
 - ✓ Gastric antrum distension
 - ✓ Delay gastric emptying / absorption
- Gelling:
 - ✓ Slow emptying rate
 - ✓ Extend residence time



References available upon request

Examples: Enhancing Taste & Satisfaction

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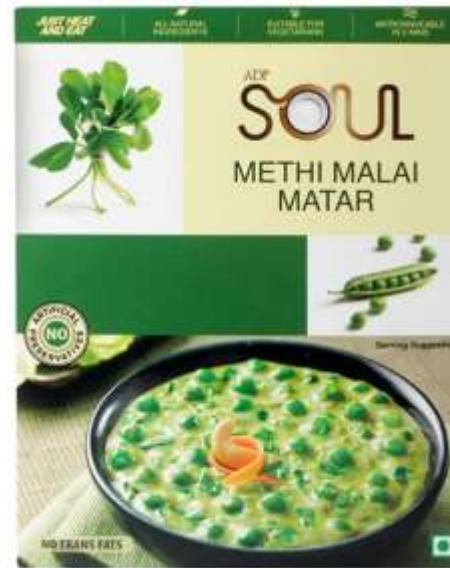
Austria: Roasted nut oils

www.facebook.com/StogerOil



South Korea: Cashew-based Denmark Milk

www.DenmarkMilk.net



Canada: Cashew-based prepared Indian favorite

www.SoulFoods.com



Ukraine: Cashew-based pasta sauce

www.barilla.com

Practical Suggestions

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Critical factors for success in the marketplace:

- **Feeling is believing**
- **Technological innovations**
- **Physiological effects**
- **Build with synergy**
- **Marketing vs puffery**
- **Education vs propaganda**
- **Science & history of use**



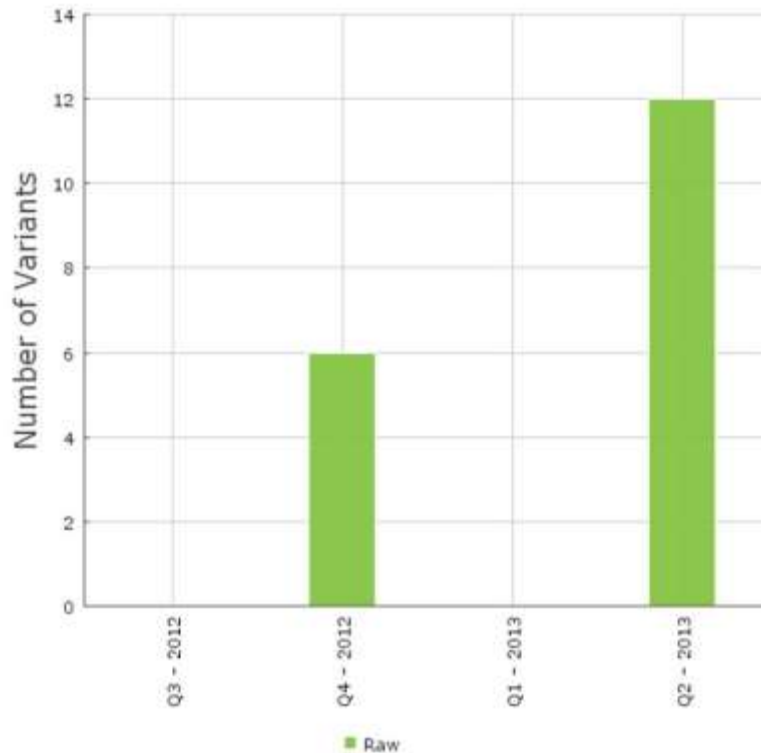


Cashew-based Ingredients for Competitive Advantage

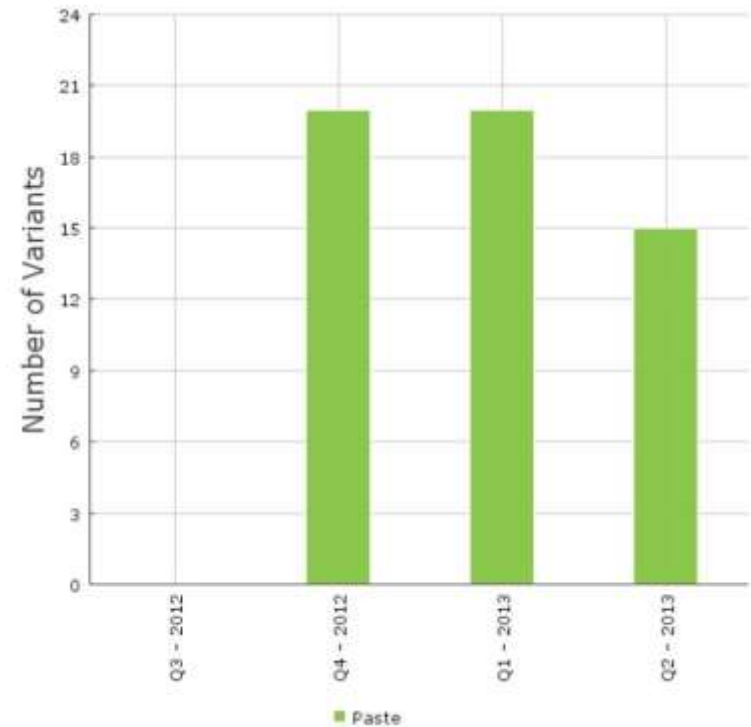
Cashew Ingredient Trends

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CASHEW BUTTER (RAW) (Q3 2012 - Q2 2013)



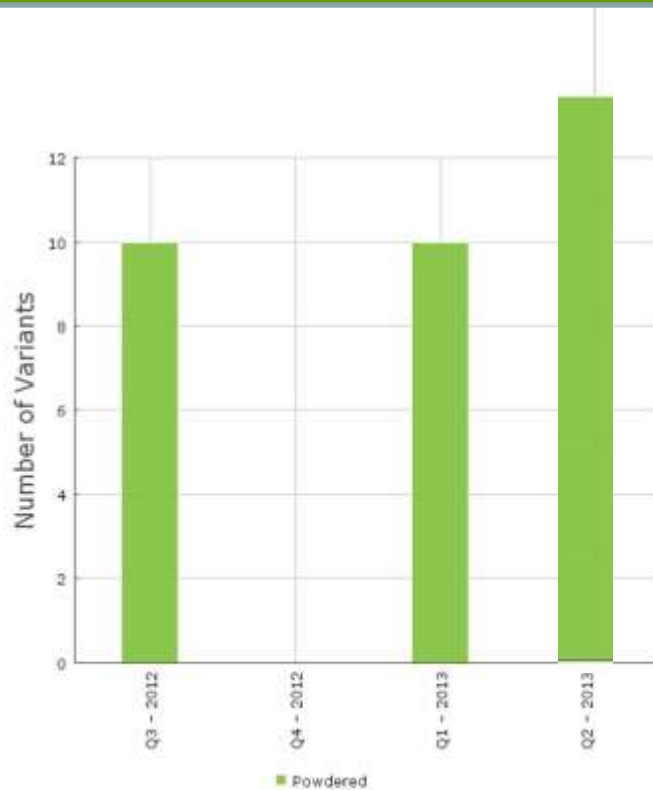
CASHEW PASTE (Q3 2012 - Q2 2013)



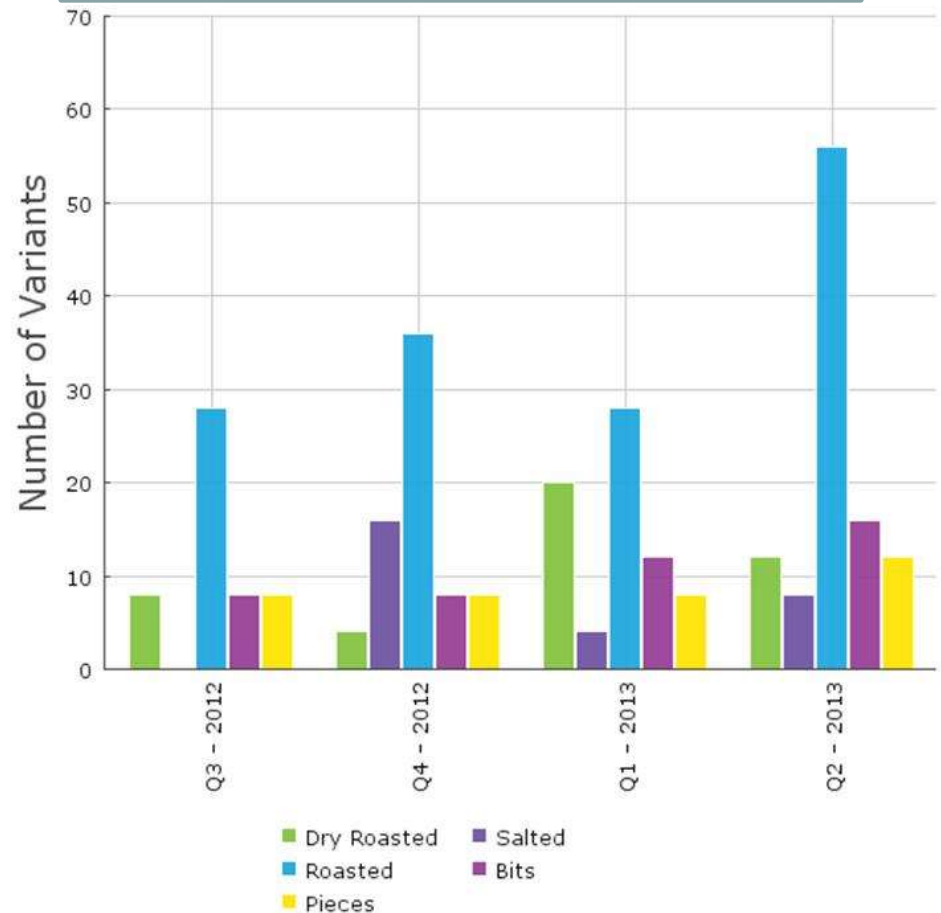
Cashew Ingredient Trends

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CASHEW FLOUR (Q3 2012 - Q2 2013)



CASHEW NUT (Q3 2012 - Q2 2013)



Cashews for Competitive Edge!

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- Understand the science
- Select ingredients for a continuum of flavors, textures, and taste
- Figure out what consumers seek - explicitly and tacitly
- Apply science - it always works!
- Educate your audience - the more you share, the more loyalty you will reap

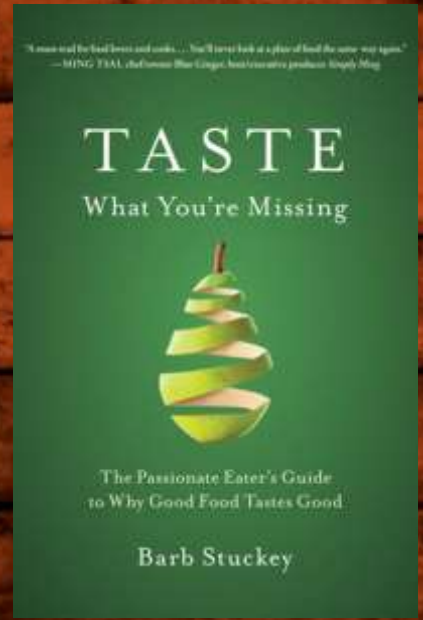
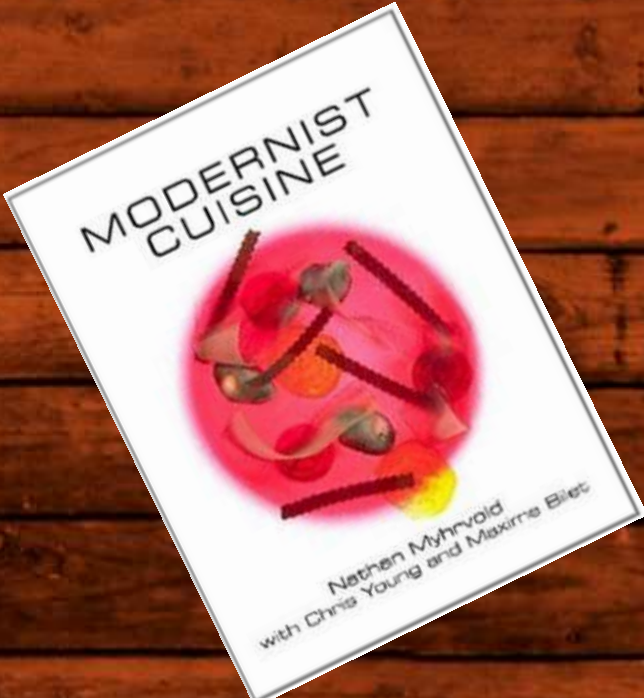
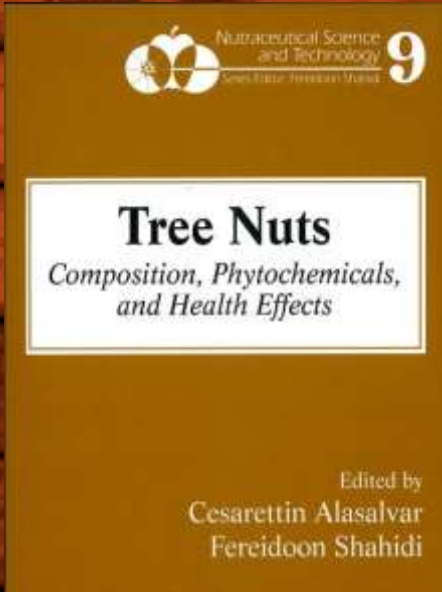
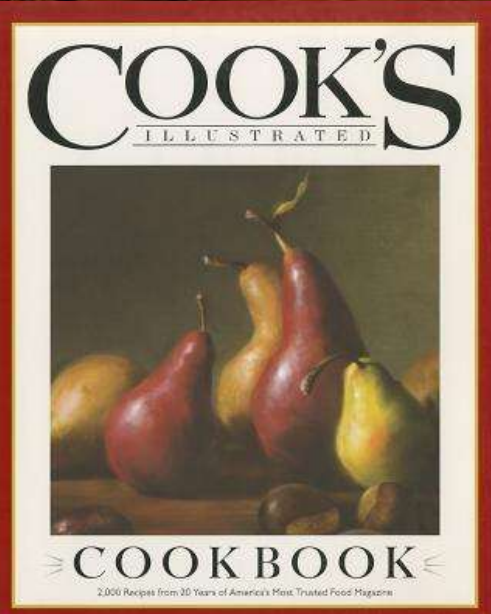
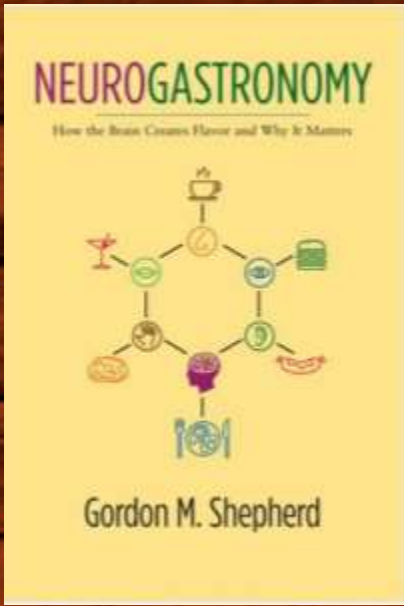
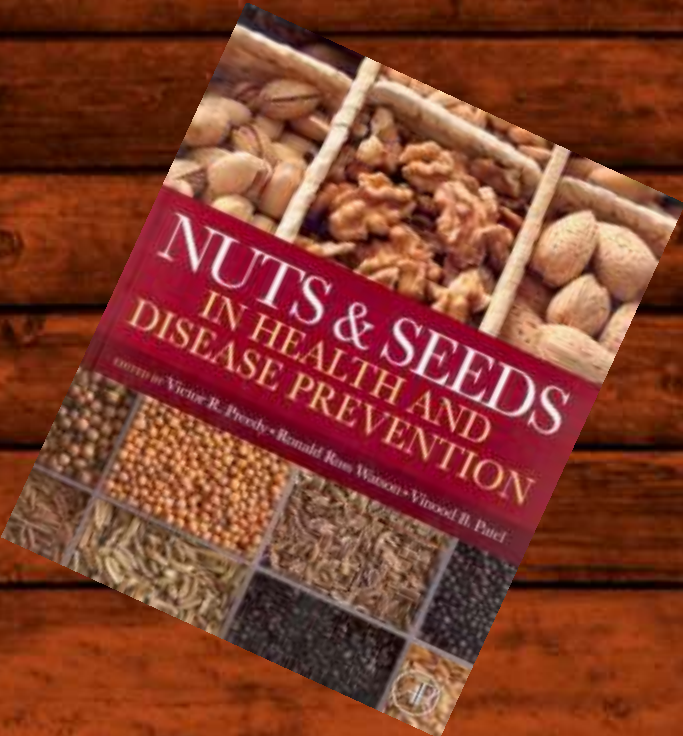


...for people are beginning to associate
healthful diets as cheaper than going to
doctors...

Narratives | Many stories that \$ELL!

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- The story: a charismatic founder or folklore
- Unique production methods: artisanal | biotech | new process
- Unique varieties: heirloom varieties | specialty cashews
- Geographical origin: region | country
- A solution: postpones hunger | satisfies easily | gluten-free
- Distinctive difference: what makes it unique from other nuts
- Certifications: Kosher | Halal | Fair Trade
- Social cause: education | school children | wild life
- The INGREDIENT(S): taste and satisfaction and enjoyment!
- Science-based evidence: heart health | glycemic-index | fiber



DISCLOSURES & SOURCES

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- Not affiliated with any of the companies mentioned in today's presentation
- No confidential or proprietary information included
- Institute of Food Technologists
- Innova Database
- Mintel
- Euromonitor
- Listservs
- Editorial duties
- Corvus Blue insights



VALUE CHAIN & GAINS!

World Cashew Festival & Expo 2013



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