

The Corn Sweetener Perspective

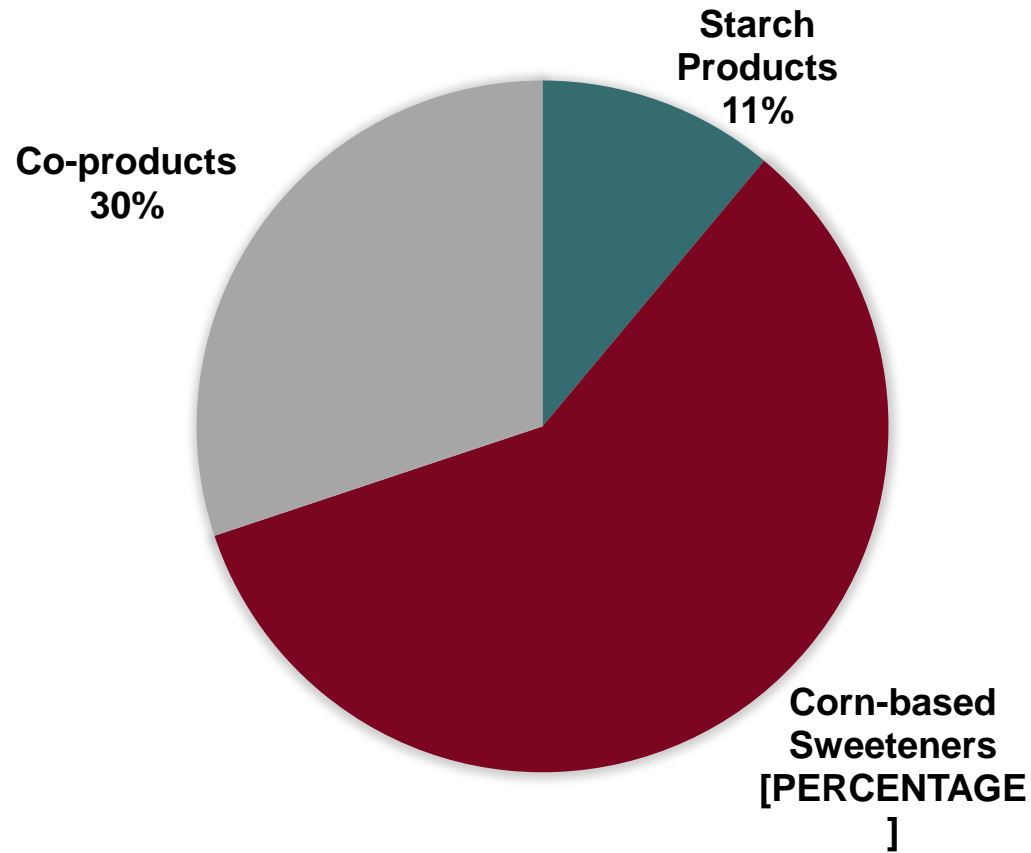
Cassandra Kuball
Director, Trade & Industry Affairs

Tuesday, February 28
“Sweetener Choices are Many”
International Sweetener Colloquium

Corn Refiners Association

- A national trade association representing the corn refining industry of the United States.
- CRA and its predecessors have served this important segment of American agribusiness since 1913.
- Our members manufacture over 10 billion USD worth **sweeteners**, ethanol, starch, advanced bio-products, corn oil and feed products a year.

U.S. Corn Refining Industry



**2015:
25.86 MMT**

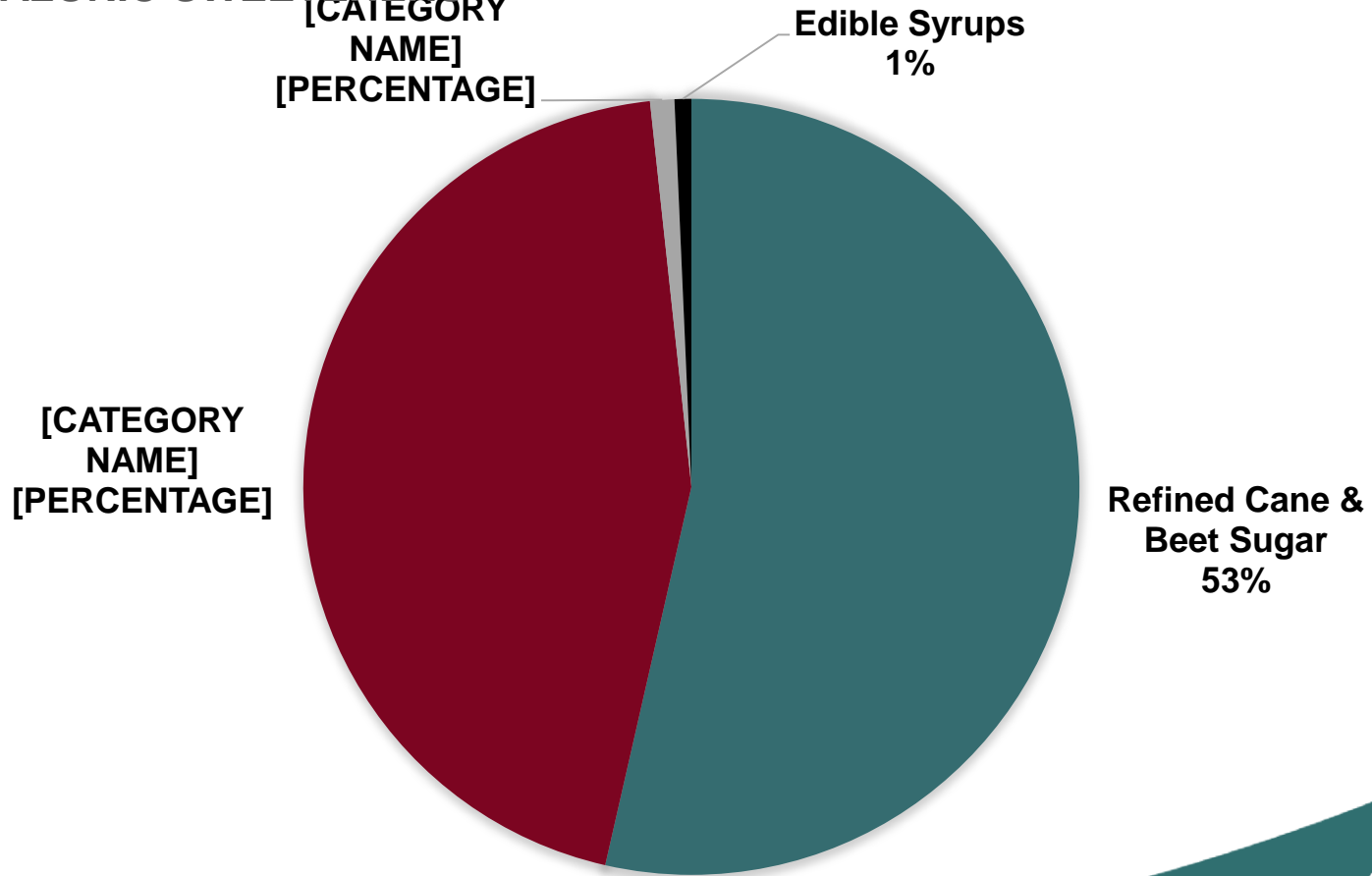
Source: CRA/Vault Consulting, LLC

A photograph of a cornfield with several ears of corn in the foreground. The corn husks are green and partially peeled back, revealing the brown, fibrous silk. The background is a soft-focus field of corn plants under bright, natural light, creating a bokeh effect. A semi-transparent white horizontal bar is overlaid across the middle of the image, containing the text "Corn Sweeteners" in a dark teal, sans-serif font.

Corn Sweeteners

U.S. Caloric Sweetener Market

U.S. PER CAPITA CONSUMPTION
CALORIC SWEETENERS



Source: USDA, ERS, Sugar & Sweeteners Outlook

Corn Sweeteners & Uses

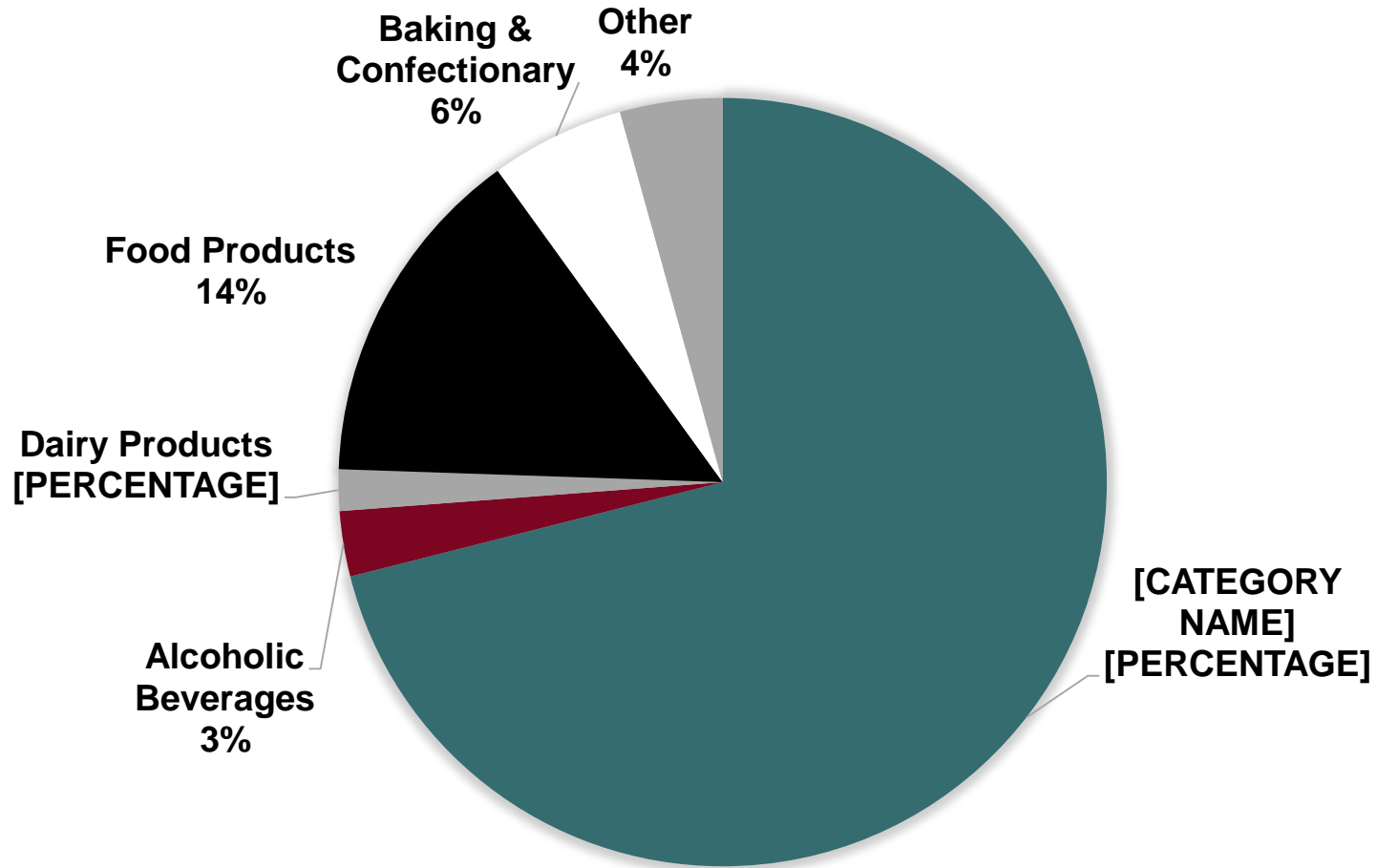
Corn Sweeteners

- High Fructose Corn Syrup 42
- High Fructose Corn Syrup 55
- Corn Syrup
- Crystalline Fructose
- Dextrose
- Maltodextrins

Product Uses

- Beverages
- Table Syrups
- Candies
- Ice Cream
- Confectionary
- Caramel Coloring
- Brewing
- Artificial Silk
- Vinegar
- Infant Formula
- Shoe Polishes
- Etc.

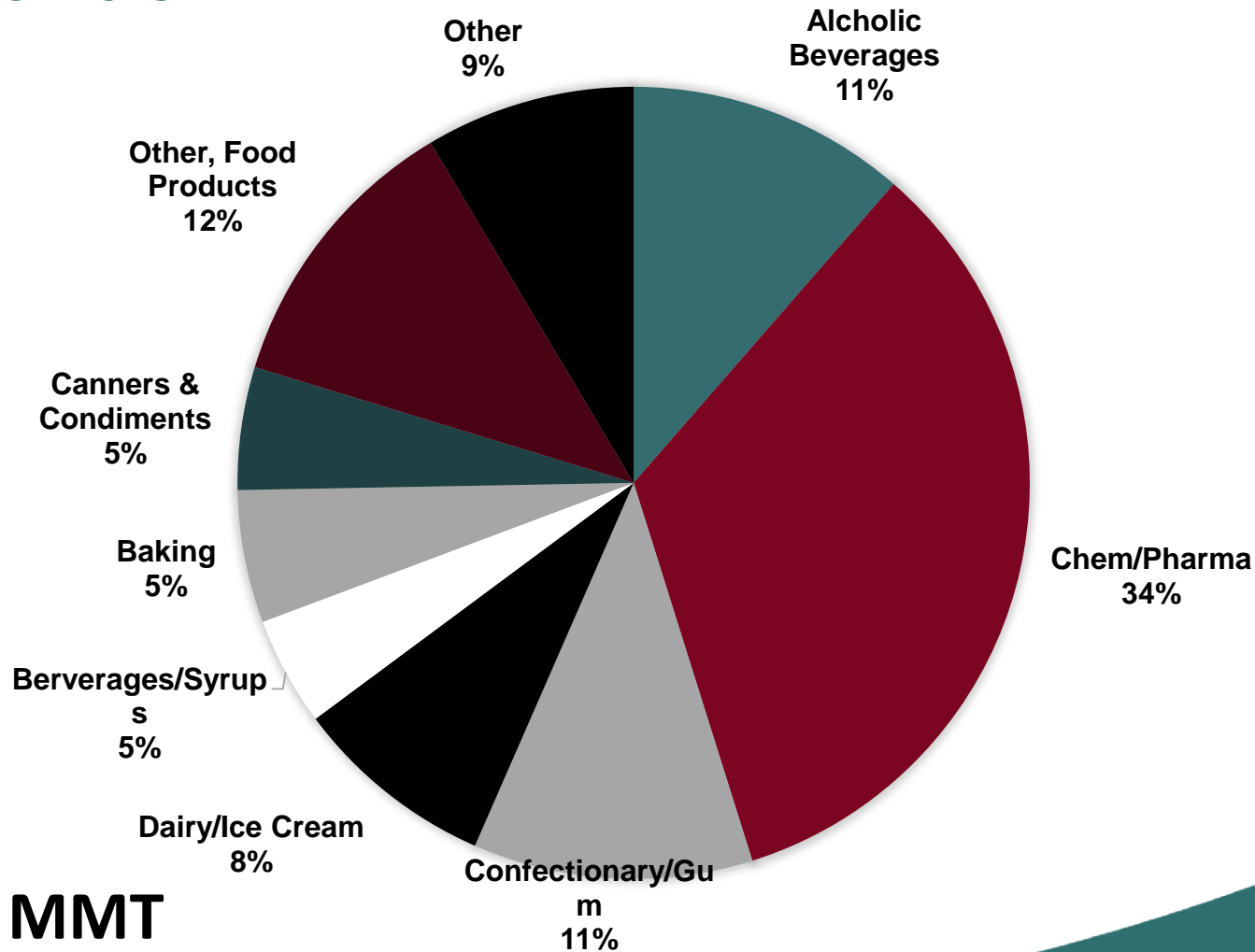
U.S. HFCS: Market Breakdown



8.33 MMT

Source: CRA/Vault Consulting, LLC

U.S. Corn Syrup/Dextrose: Market Breakdown



4.96 MMT

Source: CRA/Vault Consulting, LLC

Reduced Calorie Sweeteners

- Erythritol
- Maltitol
- Sorbitol
- Xylitol
- Mannitol
- Glucose hydrolysates
- Hydrogenated starch hydrolysates (HSH)





What We're Facing

Future of Sweetener Market

**EU Sugar
Quota**

Biotech
Labeling

Sustainability

“Clean Label”

Anti-Added
Sugars Campaign

**U.S.-Mexico
Sugar Trade**

***Sugar/Soda
Taxes,
Bans & Warning
Labels***

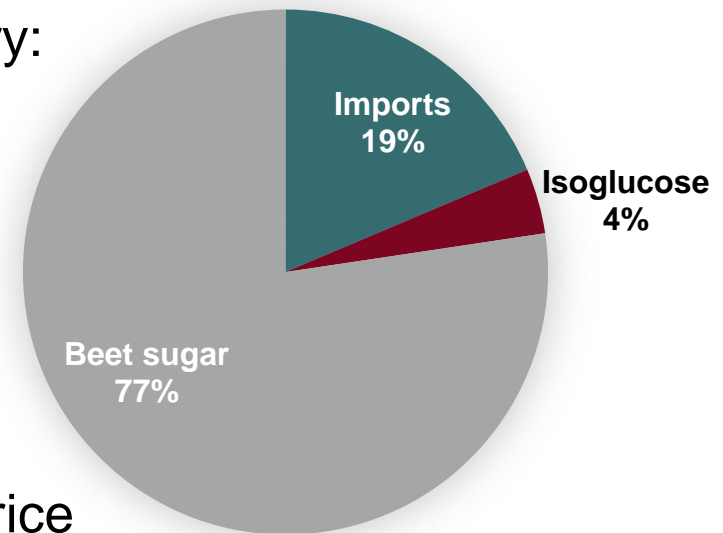
**World Health
Organization**

A photograph of a cornfield with several ears of corn in the foreground. The corn cobs are still in their husks, and the tassels are visible. The background is a blurred field of corn plants under bright, warm light, possibly from the sun being low in the sky. A semi-transparent white horizontal bar is overlaid across the middle of the image, containing the text "EU Sweetener Market".

EU Sweetener Market

The “NEW” EU Sweetener Market

- Current Sugar & Sweetener Market
 - Sugar & Isoglucose constrained by quotas
 - Sales to Food & Beverage industry:
 - 13.5 MMT sugar
 - 0.70 MMT isoglucose
 - Capped exports
- October 1, 2017
 - End of EU sugar quota & min. beet price
 - End of WTO export limit
 - Import barriers remain in place



The “NEW” EU Sweetener Market

- Increase in beet sugar production
- Starch industry
 - Market potential est. 5-6 MMT
 - Easy upgrades
 - Long-term investments TBD

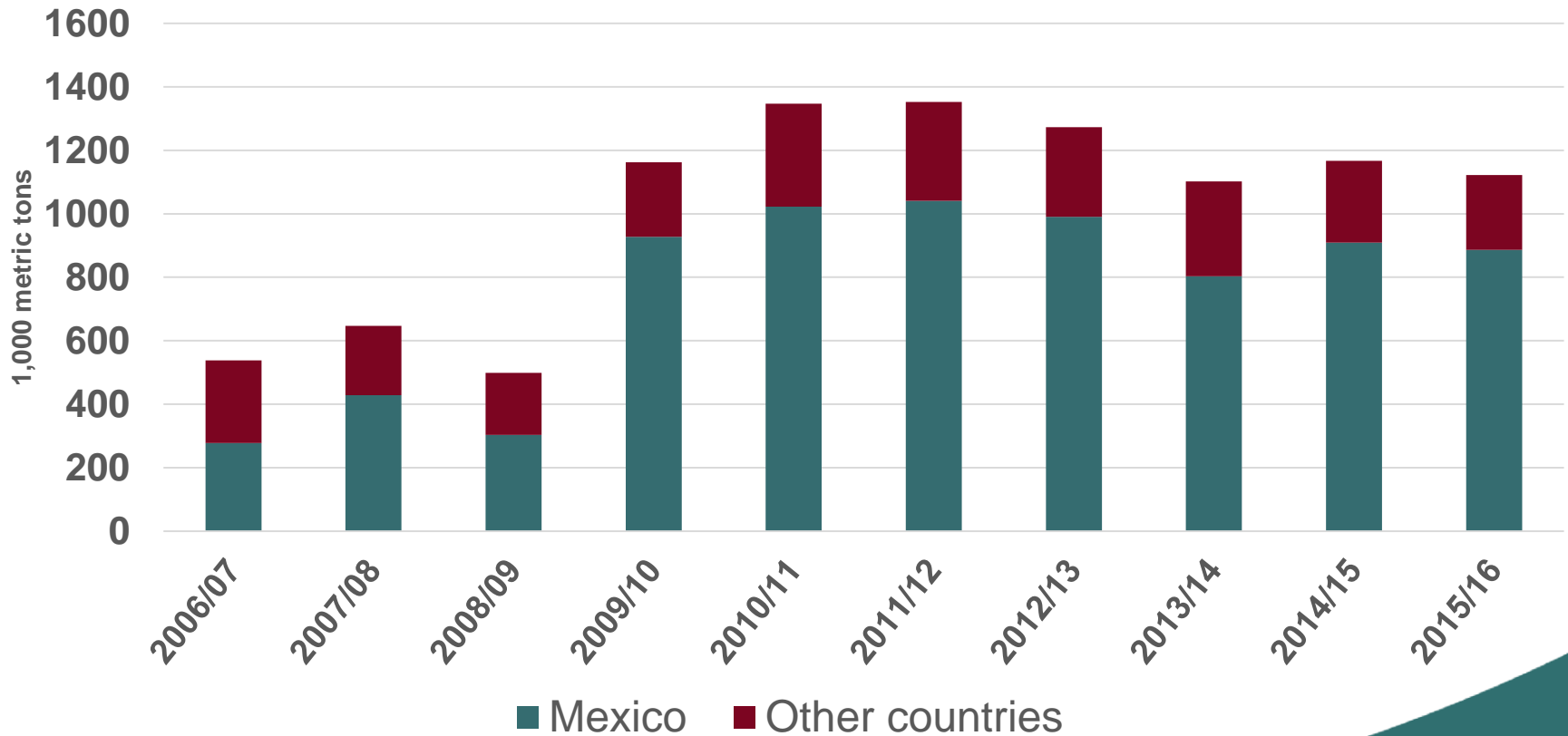




U.S. – Mexico Sweetener Trade

U.S. HFCS Export Market

U.S. HFCS Exports (Fiscal Year)



Source: U.S. Census Bureau

New Administration – New Trade Policy

Focus on Mexico/NAFTA

Bilaterals (new & upgrades)

Compliance & Enforcement

**U.S.-Mexico Sugar & Sweetener
Trade**

Thank you!

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For more information visit:
www.CORN.org