ORGANIC SUGAR OUTLOOK

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WHOLESOME SWEETENERS
ORGANIC SUGAR OUTLOOK AGENDA

• US ORGANIC MARKET & GROWTH
• IMPORTANCE OF ORGANIC CANE SUGAR
• ORGANIC SUGAR PRODUCTION & IT’S BENEFITS
• GLOBAL ORGANIC SUGAR SOURCES & IMPORTS
• DEMAND GROWTH & NEED FOR EXPANDED FUTURE US MARKET ACCESS
1. US ORGANIC MARKET & GROWTH
ORGANIC FOOD SIGNIFICANTLY OUTPACING CONVENTIONAL FOOD SALES GROWTH

Organic sales in the U.S. totaled a new record of $49.4 billion in 2017, up 6.4 percent from the previous year.

The growth rate for organic food sales well above that of the overall food market, which nudged up 1.1 percent.

Organic continued to increase its penetration into the total food market, and now accounts for 5.5 percent of the food sold in retail channels in the U.S.
ORGANIC PURCHASES THRIVING IN ALL 50 STATES

Organic has made a huge inroad into the households of the majority of U.S. families. There are a number of states in which 90 percent or more of households now buy organic on a regular basis, and even the lowest levels all hover around 70 percent.
ORGANIC PROCESSED FOODS ONLY ACCOUNT FOR ONE THIRD OF THE ORGANIC MARKET BUT ARE GROWING FASTER THAN ORGANIC FRESH FOOD – 9% VERSUS 5%
• IMPORTANCE OF ORGANIC CANE SUGAR
ORGANIC SUGAR IS A MAJOR INGREDIENT IN ORGANIC FOOD PROCESSING

ORGANIC SUGARS & SWEETENERS ARE ALSO KEY ORGANIC CONSUMER PRODUCTS IN THEIR OWN RIGHT
ORGANIC SUGAR IS A KEY PROCESSED PRODUCT INGREDIENT FOR FORMULATING ORGANIC PROCESSED FOODS

U.S. organic standards allow four different labeling options based on the percentage of organic ingredients in a product and the processing practices a company uses. These categories determine how a company can use the word “organic” on its packaging.

- **100% Organic**
  (Use of the USDA seal is optional)

- **Less than 70% Organic Ingredients**
  Organic Ingredients denoted in ingredient list only

- **Organic**
  95% or more Organic Ingredients
  (Use of the USDA seal is optional)

- **Made with Organic Ingredients**
  At least 70% Organic Ingredients
Despite overall sugar consumption criticism Organic Sugar offers key attributes that are drivers of consumer demand growth.

2018 Annual Growth

<table>
<thead>
<tr>
<th>Channel</th>
<th>USDA Organic</th>
<th>Fair Trade USA</th>
<th>Vegan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Channel</td>
<td>+2.2%</td>
<td>+3.1%</td>
<td>+8.3%</td>
</tr>
<tr>
<td>Total US - Food</td>
<td>+5.2%</td>
<td>+2.0%</td>
<td>+13.0%</td>
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</tbody>
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USDA Organic, Fair Trade, Vegan product trends show strong growth in all major consumer retail channels.

Source: SPINSSCAN 52 weeks ending 12/30/18
• ORGANIC SUGAR PRODUCTION & IT’S BENEFITS
Organic Cane Sugar – Simple, Physical Production Process

1. **Non GMO, Organic Farming**
2. **Fresh Cane Quickly Transported to Mill**
3. **Cane is Crushed & Juice is Extracted & Filtered**
4. **Juice is Concentrated & Crystallized**
5. **Crystals & Molasses Separated in Centrifuge**
6. **Organic Sugar Is Dried**
7. **Organic Sugar is Packed & Stored**
Organic Cane Sugar: A Greener Footprint (1)

- The benefits of organic sugar cane cultivation and production are clearly more environmental, than the production of a ‘healthier’ final sugar product.
- Sugar cane is one of nature’s best photosynthesizers, converting nearly 2% of sunlight into energy.
- In both conventional and organic mills, the crushed cane bagasse, is burned in the furnaces to generate energy for the mills. The power generated is usually more than the needs of the mill alone, so the co-generated green energy is used to power local homes, businesses, and schools.
- A study in Paraguay by the Sustainable Food Lab in 2011 commissioned through Unilever’s Cool Farm Tool demonstrated that organic farming methods resulted in lower total carbon emissions than conventional sugar cane farming, 25% less CO2 per MT of sugar & over 40% less/ hectare
Organic Cane Sugar: A Greener Footprint (2)

• The conventional cane growing system has a much higher rate of fertilizer production emissions due to synthetic fertilizer use and the organic compost fertilizer will offer a higher sequestration benefit that is captured by the carbon stock change.

• Given the use of organic composting techniques in organic cane cultivation, there are no emissions related to the use of herbicides and pesticides as they are not used the organic system.

• Although it is typical for many conventional farms to practice reduced tillage, unlike organic, conventional farms do not generally use cover crops, apply manure as fertilizer, or incorporate residues which all contribute to sequestration benefits.

• Crop management emissions are also much more prominent in the conventional system, due to the cane burning to ease harvesting.
• GLOBAL ORGANIC SUGAR SOURCES & IMPORTS
Need for Imports to satisfy organic sugar demand

• There are no significant U.S. sources of organic sugar capable of supporting domestic demand and we would estimate that at close to 200,000MT of consumption in 2019 (so way less than 1% of total US caloric sweetener consumption) so that is unlikely to change in the near-term

• High wages and cost of land with three year transition period from conventional to organic

• Generally unsuitable climate for sugar cane even in current growing areas impacting yields

• Beet sugar not a viable alternative given the prevalence of genetic modification

• Therefore most organic sugar marketed and in the U.S. (both retail and ingredient) is imported
Major Global Sources of Organic Sugar

Primarily South and Central America for the US Market with a small amount of domestic production and some small imports from Mexico & India

Largest Producers are in Brazil, Paraguay, Colombia and Argentina
• DEMAND GROWTH & NEED FOR EXPANDED FUTURE US MARKET ACCESS
US Market Access for Organic Sugar

• Organic sugar doesn’t directly compete with conventional sugar produced under the Sugar Program as it is market demand domestic production is unable to meet.

• Qualified organic sugar can be entered under the Specialty Sugar Quota as part of the overall sugar TRQ. This works effectively but does create a complicated and expensive supply chain for participants.

• Before making annual quota size decisions the USDA FAS works with industry participants to gather information on market size and demand from producers, importers & customers. This includes the Organic Trade Association (OTA) Sugar Taskforce that supports the effort with credible market data.

• The availability of competitively priced organic sugar benefits and supports US Organic Farmers cultivating other organic crops domestically. It makes available a key ingredient needed in organic processed food production thereby creating demand for those crops.

• Given the US Organic Food Market is growing 6X the conventional food market, these organic processed products are sold in the US and exported overseas to meet the demand of this rapidly growing market.
Specialty Quota for Organic Sugar needs to continue to expand in line with demand growth at an estimated 5-10% per annum to prevent market shortages occurring.