Hemp Seeds 101: Agenda

Who is Victory Hemp Foods?

The Wonder-Seed: Nutrition, Processing, Products & Markets

Business of Growing Hemp Seeds
Who is Victory Hemp Foods?

100% U.S. Grown and Processed
Who is Victory Hemp Foods?

- **Hemp acres in Canada:**
  - 2012  
  - 2013  
  - 2014  
  - 2015  
  - 2016  
  - 2017

- **Hemp acres in Kentucky:**
  - 2014  
  - 2015  
  - 2016  
  - 2017  
  - 2018
Who is Victory Hemp Foods?

Business News

Kentucky Hemp Company Buys Middlebury Processing Facility

by Sasha Goldstein

April 09, 2018
The Wonder Seed
PLANT-BASED PROTEIN GROWTH, U.S. SALES

>$5 BILLION AND GROWING >15% ANNUALLY

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why hemp?

50% more protein than almonds

3:1 ratio of Omega 3 Fatty Acids is ideal

ALL 9 essential Amino Acids make this a "complete" protein
The Wonder-Seed: Process to Product

Dehull

Hearts / Shelled Seeds
# The Wonder-Seed: Nutrition

<table>
<thead>
<tr>
<th></th>
<th>Shelled Hemp Seeds (Hearts)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nutrition</strong></td>
<td>35% Protein, Complete Protein, High in Iron and Magnesium Healthy fats!</td>
</tr>
<tr>
<td><strong>Flavor</strong></td>
<td>Nutty, mild. Cross pine nut &amp; sesame seed.</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>Soft, express oil when roasted.</td>
</tr>
<tr>
<td><strong>Uses</strong></td>
<td>Anywhere nuts: Granola-Oats, salads, smoothies, baking, pesto</td>
</tr>
</tbody>
</table>
Cold Pressed Hemp Seed Oil

Hemp Protein 50, 33, 23
# The Wonder-Seed: Nutrition

<table>
<thead>
<tr>
<th><strong>Nutrition</strong></th>
<th>Healthy Oil! High in Healthy Omega-3 &amp; Polyunsaturated Fatty Acids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flavor</strong></td>
<td>Flavorful, earthy, grassy</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>Smoke point only 20F below EVOO</td>
</tr>
<tr>
<td><strong>Uses</strong></td>
<td>Anywhere EVOO: Salad oil, light sauté, pesto, smoothie, topical, soaps</td>
</tr>
<tr>
<td><strong>Hemp Protein (P50)</strong></td>
<td></td>
</tr>
<tr>
<td>------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Nutrition</strong></td>
<td></td>
</tr>
<tr>
<td>50% Protein, Complete Protein, High in Iron and Magnesium, Healthy Omega-3 &amp; Polyunsaturated Fats</td>
<td></td>
</tr>
<tr>
<td><strong>Flavor</strong></td>
<td></td>
</tr>
<tr>
<td>Nutty, earthy, grassy</td>
<td></td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td></td>
</tr>
<tr>
<td>5% to 33% of baking mixes. No gluten.</td>
<td></td>
</tr>
<tr>
<td><strong>Uses</strong></td>
<td></td>
</tr>
<tr>
<td>As cornmeal, protein powder, flour: baking, pasta, smoothies, pesto</td>
<td></td>
</tr>
</tbody>
</table>
The Wonder Seed:
Hemp Protein Isolate & Refined Oil
The Wonder Seed: Hemp Protein Isolate & Refined Oil
WE

Americans are shifting to plant based foods out of concerns for health

WANT

Burgers & Fries, with a Shake

INDULGENCE

current products fall short
>25% are disappointed with plant-based options!
The Wonder Seed: Format Is Everything

HPI
patent pending, hemp protein isolate.

White Flowable Water Soluble
80% protein certified organic or conventional
high binding capacity
The Wonder Seed: the competition

**SOY**
- GMO
- Isoflavones
- Phytoestrogens
- Consumer sentiment waning
- Allergen

**PEAS**
- Flavor challenges
- Incomplete Protein
- Decrease in kidney function
- Joint pain
- Formulation

**ALMOND**
- High Cost Protein
- Incomplete Protein
- Allergen
- Environmentally Vulnerable
- Supply Chain
The Wonder Seed: In-Demand Attributes

Complete, Plant-Based Protein

Zero Allergens

Gluten Free

100% U.S. Grown and Processed

High in heart-healthy Omega-3’s

(Zero CBD, Zero THC)

Available

USDA Organic
The Wonder-Seed: Multiple Multi-$B Markets

- **OILS**
- **FIBER, COLOR**
- **HEARTS**
- **PROTEINS**

**MARKETS**
- **FOOD & NUTRITION**
- **CBD CARRIER**
- **SKIN CARE**
- **PET, LIVESTOCK**

**PRODUCTS**
Business of Growing Hemp Seeds
## Business of Growing Hemp Seeds: Enterprise Budget

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Soy Beans</th>
<th>Tobacco</th>
<th>Conventional Hemp</th>
<th>Organic Hemp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$686</td>
<td>$450</td>
<td>$4,370</td>
<td>$700</td>
<td>$1,100</td>
</tr>
<tr>
<td><strong>Inputs</strong></td>
<td>$375</td>
<td>$160</td>
<td>$1,155</td>
<td>$300</td>
<td>$250</td>
</tr>
<tr>
<td><strong>Labor</strong></td>
<td>$45</td>
<td>$45</td>
<td>$880</td>
<td>$90</td>
<td>$90</td>
</tr>
<tr>
<td><strong>Other Costs</strong></td>
<td>$163</td>
<td>$145</td>
<td>$1,050</td>
<td>$90</td>
<td>$90</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td>$104</td>
<td>$100</td>
<td>$1,285</td>
<td>$220</td>
<td>$670</td>
</tr>
</tbody>
</table>

Source: University of Kentucky data
Multiple Revenue Stream Opportunities

- Flowers: THC
- Flowers, biomass: CBD
- Seeds: Food
- Portions of stalks: Fiber
Business of Growing Hemp Seeds: Required Equipment

☑ Tillage
☑ Planter
☐ Combine
☐ Grain Bin
☐ Grain Dryer
Business of Growing Hemp Seeds: Growing Contracts

- Sales Contract
- Seed variety specified and supplied
- Store until delivery
- Fixed price per lb. at defined quality and delivery point
- Quality:
  - 99.5% pure after cleaning
  - <9% moisture
  - No pathogens
  - Not spoiled or contaminated (Good Post-Harvest Handling!)
Business of Growing Hemp Seeds: Is this for me?

• Grain / Legume Agronomics, Acreage and Equipment
• Crop Insurance: Coming but not yet here
• Drier vs Wetter Ground
• Opportunity with Rotation and Nutrient Management
• Give it a Test?
Questions?
chris@victoryhempfoods.com
or call: (802) 522-9106
## Farm Economics

<table>
<thead>
<tr>
<th>J. Farm Econ Of Hemp Grain</th>
<th>Corn</th>
<th>Soya</th>
<th>Tobacco</th>
<th>Conventional Hemp</th>
<th>Certified Organic Hemp</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Based on 1 Acre</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross</td>
<td>$588</td>
<td>$450</td>
<td>$4,370</td>
<td>$850</td>
<td>$1,100</td>
</tr>
<tr>
<td><strong>INPUTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soil Amendments</td>
<td>$175</td>
<td>$60</td>
<td>$650</td>
<td>$100</td>
<td>$100</td>
</tr>
<tr>
<td>Tillage</td>
<td>$0</td>
<td>$0</td>
<td>$125</td>
<td>$50</td>
<td>$50</td>
</tr>
<tr>
<td>Seed/Plants</td>
<td>$160</td>
<td>$60</td>
<td>$330</td>
<td>$100</td>
<td>$100</td>
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<tr>
<td>Herbicides</td>
<td>$40</td>
<td>$40</td>
<td>$20</td>
<td>$50</td>
<td>$0</td>
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<tr>
<td>Pesticides</td>
<td>$0</td>
<td>$0</td>
<td>$30</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td><strong>Total Input Costs</strong></td>
<td>$375</td>
<td>$160</td>
<td>$1,155</td>
<td>$300</td>
<td>$250</td>
</tr>
<tr>
<td><strong>LABOR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td>$10</td>
<td>$10</td>
<td>$80</td>
<td>$50</td>
<td>$50</td>
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<tr>
<td>Harvest</td>
<td>$15</td>
<td>$15</td>
<td>$500</td>
<td>$40</td>
<td>$40</td>
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<tr>
<td>Trucking</td>
<td>$20</td>
<td>$20</td>
<td>$300</td>
<td></td>
<td>$90</td>
</tr>
<tr>
<td><strong>Total Labor Costs</strong></td>
<td>$45</td>
<td>$45</td>
<td>$880</td>
<td>$90</td>
<td>$90</td>
</tr>
<tr>
<td><strong>ADDITIONAL COSTS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drying</td>
<td>$23</td>
<td>$5</td>
<td>$350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stripping (Tobacco)</td>
<td>$0</td>
<td>$0</td>
<td>$550</td>
<td></td>
<td></td>
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<tr>
<td>Storing</td>
<td>$50</td>
<td>$50</td>
<td>$0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>$90</td>
<td>$90</td>
<td>$150</td>
<td>$90</td>
<td>$90</td>
</tr>
<tr>
<td><strong>Total Additional Costs</strong></td>
<td>$163</td>
<td>$145</td>
<td>$1,050</td>
<td>$90</td>
<td>$90</td>
</tr>
<tr>
<td><strong>Total Expenses</strong></td>
<td>$583</td>
<td>$350</td>
<td>$3,085</td>
<td>$480</td>
<td>$430</td>
</tr>
<tr>
<td><strong>Net</strong></td>
<td><strong>$6</strong></td>
<td><strong>$100</strong></td>
<td><strong>$1,285</strong></td>
<td><strong>$370</strong></td>
<td><strong>$670</strong></td>
</tr>
</tbody>
</table>

### Assumptions:
- Yield/lb:
  - Corn: 9800 lbs
  - Soya: 3000 lbs
  - Tobacco: 2300 lbs
  - CBD: 500 lbs
- Price/lb:
  - Corn: $0.06
  - Soya: $0.15
  - Tobacco: $1.90
  - CBD: $30.00

### Conventional Hemp Premium Over Corn:
- 31% for Tobacco
- 47% for CBD