

## The ABCs of the Hemp Industry

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### Presenters:

Rory Cruise, CEO, Sweetwater Hemp Co.
Andrew Potter, Co-Founder & CEO, Blue Sky Hemp Ventures
Wilson Johnson, Co-Founder & Chief Agronomist, Blue Sky Hemp Ventures



## **The Clear Choice To Our Future**

Presented by: Rory Cruise

Chief Executive Officer, Sweetwater Hemp Company

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## Our Sweet Vision

For Hemp Farmer's across Nebraska and the Nation





#### Together we will

Create a cultivation network of farmers to grow specific quality hemp strains for the World's Largest Solventless Extraction Facility in order to produce the world's highest quality products on the market.



## Our guiding principles and fundamental beliefs

- We believe in building meaningful relationships that are built on trust and appreciation
- We believe in fostering a sustainable future

## **HEMP- A Farmer's Opportunity**

FOR NFBRASKA AND OUR NATION



Moving forward, more farmers will need to band together in support of expanding the hemp-growing industry for a more ecologically-sound future.



### **Another Agricultural Crop Commodity**

Hemp grows quickly, demands less water than many other crops and provides a commodity that is protected under the Federal Crop Insurance Act.

This helps rural communities prosper by creating jobs not just on the farm, but also through providing new construction materials, clothing, packaging and paper made from hemp, and bio-fuels and bio-plastic manufacturing industries that exist in collaboration within the growing hemp marketplace.

Looking forward, it is not hard to imagine a world built from all the hemp-based products. In fact, most products exist in a hemp-based version. While a hemp utopia is within reach, it is not yet a reality.

50%

In 2020, hemp production fell 50% short of its projected production estimate.

18-25 million kilos

Growers produced an incredible amount of hemp but it is not YET enough to build a fully sustainable utopia. (40-56 million lbs)





## **Our Unique Process**

What Sets Sweetwater Hemp Company Apart



#### PREMIUM QUALITY HEMP STRAINS

We partner with select hemp farmers who grow quality specific strains using sustainable growing methods.



#### **SOLVENTLESS EXTRACTION SYSTEM**

Water, ice and patent protected proprietary agitation and flow pattern equipment allows full capture almost all trichomes found in the plant



#### **TERPENE ENRICHMENT PROCESS**

Oil is produced without drying ever involved in the process, this allows us to preserve and concentrate all the terpenes and cannabinoids in the hemp plant



#### PREMIUM FORMULATION OF PRODUCTS

We are left with an amazing product as is but we are able to develop further products. We use organic ingredients to flavor our oils.

## **Solventless Extraction System**

Flow Chart

READY FOR SOLVENTLESS EXTRACTION



Flower Heads, Little To no Stems



160kg per run wet Must Deliver within 72 hours



56kg per run dry



#### **AGITATION VESSEL**

Using water and ice, biomass is introduced (Proprietary agitation and flow pattern releases trichrome's)

If Yes, we would cycle a second time through

**SEPARATION** VESSEL

-----> Is there still Trichomes left?

NO

YES



**BUBBLE HASH COLLECTION VESSEL** 



**TERPENE ENRICHMENT** VESSEL

## What we are looking for in the plant?

Importance of Trichomes



## cystolithic hair capitate-sessile trichome bulbous trichome capitatestalked trichome



Image by Bubblema

## **Trichomes**

Cannabinoids and terpenes collect in glandular trichomes

### **Important Glandular Trichomes**

Capitate Stalked Sessile Stalked Bulbous

### Trichomes most abundant in unfertilized female flowers

The exact nature/ratio of the cannabinoids and terpenes secreted is determined by the genetics in the original cannabis seed, as well as the environment.

### **Best Practices to Preserve Trichomes**

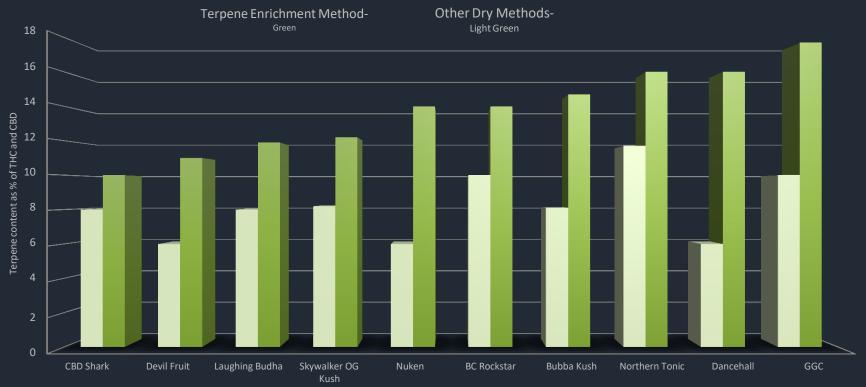
Preserving Trichomes Harvest by Hand Bucking Machine



## **Sweetwater Terpene Enriched Oils**

Sweetwater Hemp Company process allows the capture of terpenes lost in other methods

## **Terpene Content in Other Methods and Terpene Enriched Oil**





## **Interested in Growing with Us?**

Basic Expectations



## PEOPLE BUILD THE BUSINESS

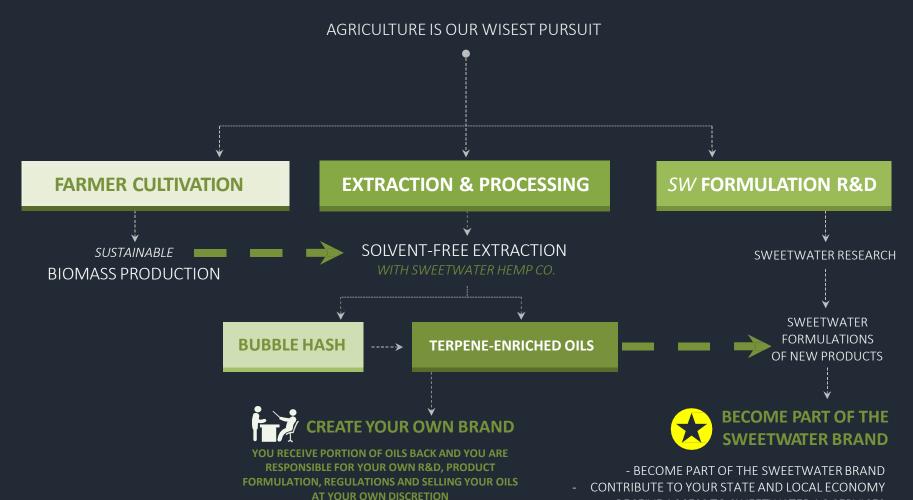
### BECOMING A PARTNER WITH SWEETWATER HEMP CO. IS MADE EASY

- 1) Grow Hemp using Specific Premium Approved Growing Strains
- 2) Organic and Sustainable Regenerative Methods
- 3) Harvesting at the Right Time
- 4) Delivering Product Fresh at the Right Time
- 5) Supporting the Sweetwater Hemp Company Brand

RECEIVE ACCESS TO SWEETWATER AG SERVICES

- LOWER RISK

# What a Sweetwater Hemp Co. Partnership Flow Chart Looks Like



MUST USE ON ALL PRODUCTS:

HEMP PROCESSED BY SWEETWATER HEMP CO.

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# Keep asking questions in the chat box!

We'll be sure to answer after the presentations



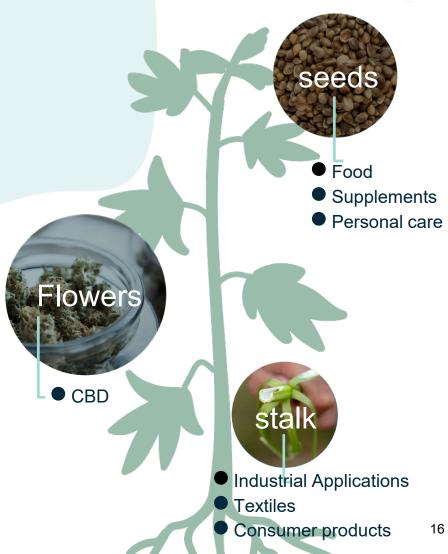
# Strategy

## Whole Plant Utilization

Blue Sky's 'whole plant utilization' approach seeks to to harness the full value of the grain for superfoods, flower for CBD extraction and the stalks for a wide variety of industrial products. Our triple bottom line philosophy creates more value for our shareholders, customers, at a lower cost to our planet.

## By focusing on whole plant utilization we:

- Secure the lowest cost inputs into each value chain
- Sustainable advantage difficult to replicate
- Negative carbon footprint





### What's an acre worth?

- Typical contract price: ~\$500/acre
- Grain ~600 lbs sold as de-hulled seed = \$720/acre of value
- Flower ~700 lbs through RFL & Extraction = \$19,000/acre of value
- Fibre ~3,000 lbs of decorticated fibre & hurd = \$489/acre of value
- CO2 sequestered ~ 10-20 tonnes @ \$50/tonne = \$500-\$1,000/acre of value

By focussing on whole plant utilization we will have a more stable cash flow stream (uncorrelated assets) that can generate more value than competing producers. This is the key to low cost and sustainable production.

Private & Confidential

# Hemp Foods

## **Opportunities**

## **Huge growth potential for plant-based foods**

- Growth in plant based foods 27% in 2020
- Meat Analogues
- Plant based dairy alternatives
- Hemp checks all the boxes: Sustainability, health benefits, versatility

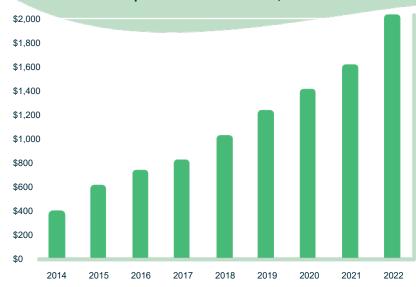
## **Challenges:**

- Access to market
- Lab testing / standardization issues
- In spec grain
- Export licenses
- Huge demand for Organic Low supply
- Educating market on hemp uses, sustainability
- Hemp for animal feed regulatory issues





U.S Hemp-Based Products Sales, 2013-2022



Source: Hemp Business Journal estimates (\$ mil.consumer sales)



Overcoming the Challenges of Broad Acre Farming Hemp

While broad-acre farmed industrial hemp offers significantly lower biomass costs, the large volume of plant material and low potencies represent the barrier to commercial production. Blue Sky's Reduced Flower & Leaf  $^{\text{TM}}$ ) RFL system reduces plant volume by 50-90% while boosting potency 1.5x-4.0x. IE the lowest cost CBD biomass while also preserving grain and stalks for food and fibre applications

### **Opportunities**

- Huge added value to our contract farming partners turns bales into 3 value streams
- much more sustainable farming practices vs greenhouse / orchard style farming

## **Challenges:**

CBD potency challenges





# CBD Extracts

## The first facility designed for broad-acre low potency hemp

In 2020, we began CBD extraction at our state of the art facility, built specifically for industrial hemp. As one of very few extractors, we have direct access to the high-value CBD market, estimated at \$3.9 billion, which will generate significant revenue that hemp growers can't get to alone.



- Red-Tape / Regulations / Delays
- Lab Errors
- Pesticide Challenges

### **Opportunities**

- Cannabis Health Product regulations
- New CBD products coming online
- Price and Environmental advantage of broad acre grown CBD
- Export







# Unlock the stalk

## A profitable fibre opportunity will complete our journey to 'whole plant utilization"

Decortication is required to separate
 hemp fibre from hemp hurd. Each
 product has very different uses /
 markets.

 BSHV plans to fast-track a 1 tonne/hour decorticator with a view of adding substantial additional capacity over the next 1-2 years.

 We believe the hemp fibre market will emerge as big, or bigger, than CBD. BSHV is well positioned to emerge as a leader in this area – and round out our vision of 'whole plant utilization'.

E Hemp
+Lime,
+ Water

Incredible
Insulation

Grown from seed
and produced in
3-4 months

Flame, Water
& Pest Resistant

Strong, Lightweight
& Breathable

Energy
Efficient

Naturally
Non-Toxic



Hemp Fibre is seeing explosive demand in textiles, sustainable auto-parts...and more!

"Levi's sees a future in hemp as a sustainable cotton alternative" -Business Insider "The most sustainable building material isn't concrete or steel — it's fast-growing hemp." - NY Times



"From Farm to freeway: Alberta company makes car parts out of hemp, flax. The lightweight panels are already being tested by BMW, Audi and Mercedes" - CBC





## Canada vs. US

	Canada	US
Hemp Farming Regulation	Cannabis Act: Consistent federal regulations for production, processing and sale of hemp & CBD	2018 Farm Bill legalized hemp cultivation federally but regulations different for each state - reviewed and approved by USDA
Specifics	<ul> <li>Growers do not need to pass criminal background check</li> <li>Cannot propagate clones</li> <li>CBD extracts must come from flower &amp; leaves - highly regulated</li> <li>Hemp must contain &lt; 0.3% total THC</li> </ul>	<ul> <li>Growers must pass criminal background check</li> <li>can propagate clones and not restricted to seed</li> <li>CBD extract can be made from any part of the plant with little regulation</li> <li>Differs state to state (up to 1% THC)</li> </ul>
Focus	Mainly grown for food & fibre	Mainly grown for CBD
CBD regulation	Highly regulated - Health Canada Cannabis Act	Unregulated
Livestock feed	working out regulatory kinks	working out the kinks
Hemp Fibre	permitted	permitted
Imports/ Exports	Federal regulations set a high - but consistent standard. Able to sell nationwide and export internationally to other legal / regulated markets.	Difficult to ship between state lines. And into other markets due to a lack of coherent and globally accepted standards.







### **Andrew Potter, CEO & Director**

With over 15 years of capital markets and strategic planning experience, Andrew is well known for early identification of major trends & themes. In 2017, he co-founded Blue Sky Hemp Ventures, seizing the opportunity provided by Canada's emerging hemp industry and a growing demand for healthy foods, sustainable industrial products and legal cannabis. 4 years on, Blue Sky Hemp Ventures is rapidly emerging as a world leader in whole plant utilization delivering on Andrews vision for a zero waste operation that drives value for partners, people and planet.



## Wilson Johnson, Chief Agronomist & Director

Wilson brings deep agronomic knowledge coupled with a locals 'lay of the land' and is responsible for watching over up to 20,000 acres of hemp through Blue Sky's farmer-partner network, along with the 8000 acres that have been in his family for 4 generations. A Bachelor of Plant Science graduate from the University of Saskatchewan, Wilson is an accomplished agronomist and entrepreneur. Wilson founded consulting firm Soil Sense Inc. in 2004, and cofounded precision ag-tech software company FieldAlytics Solutions Canada in 2017, just prior to joining Blue Sky Hemp Ventures as chief agronomist. Wilson has a strong passion for sustainable agriculture and is extremely excited about the opportunities that hemp brings to producers, processors, consumers. Wilson is also a board member at the Canadian Hemp Trade Alliance.



## **Questions?**

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