

# Innovating Wellness: The Future of Fruit Juices with Hemp/Cannabis



Beverage development consulting firm

# Not your Typical Juice Topic, but why?

Bevnology – represents the R&D & formulations part of IBC

Formulation  
R&D  
CBD Lexaria Powder

Bulk Powder Blends  
Commercial Hotfill  
Powder Stick Packs

Powder Tubs

What are we going to talk about here? Advocacy! Opportunity!

Cannabinoids and Water, why?

Evolution to healthier functional formulations. I will explain why

# Let's talk a little about Functionality

Many functional ingredients being explored, ie. ...

Adaptogens  
Alkaloids  
Ketones  
Proteins

Phospholipids  
Surfactants  
Flavonoids  
Cannabinoids

Fatty Acids  
Fiber  
Glycoproteins  
Enzymes

Trends towards natural, health promoting ingredients

Interest in cannabinoid suite of benefits

# Why Hemp and Health?

Hemp composition – vitamins, minerals, fatty acids & cannabinoids (majors and many many minors)

Cannabinoids' impacts – NIH meta-analysis across thousands of subjects by systematic medical committee review

Chronic Pain  
Cancer  
Spinal Cord Injury  
Arthritis  
Nausea  
Diabetic neuropathy

Appetite for HIV patients  
M.S. Plasticity  
Tourette's symptoms  
TBI Symptoms  
Anxiety Symptoms  
Social Phobia

Sleep disruption  
PTSD  
Seizures  
Inflammation  
Cholesterol  
Cardiovascular

But, the regulatory hurdles are tricky and need thorough consideration

# Regulatory and manufacturing challenges

Hemp vs cannabis

2018 Farm Bill – legalization of hemp (THC less than 0.3%) cultivation, processing and sale

But... - FDA still has authority to regulate products containing hemp

Cannabis – Federally illegal, THC higher than 0.3%

But.. – some states have moved to permit sale and intrastate distribution of medical and recreational cannabis

Manufacturing strategies are often constrained

# Who is doing it and why it works?

Many seltzer brands in both Hemp and Cannabis, but increasingly, juice is getting into the game

High Rise –juice and carbonation and micro-emulsion and a tiny bit of sugar.  
Both CBD and other minor cannabinoids and THC less than 0.3%

Cycling Frog – Juice seltzers with THC and CBD at less than 0.3%

NouRISH – CBD infused into juices with probiotics, turmeric and other functionals

But there are some hurdles, consumer demand for clean and natural

# Let's talk about Hemp/Cannabis extraction/Infusion challenges

Cannabinoid extraction from Hemp/Cannabis – solvents and CO2 and some new techniques using water

Solubility – NOT – but, how to use them anyway

Taste/Aroma – “ashtray mouth”, ways to deal with it

Inherent conflict with consumer health and wellness goals

# How to capitalize on Hemp Now

Natural, clean label Emulsifiers – nature tells us it is possible

Seamless juices – juice of hemp, cannabis and fruit

Super-functional-concentrates (sugar free juices) – very high nutritional, functional and psychoactive or other benefits