



CLEAN LABEL CONFERENCE



**PLT**

HEALTH SOLUTIONS

GROWTH THROUGH INNOVATION

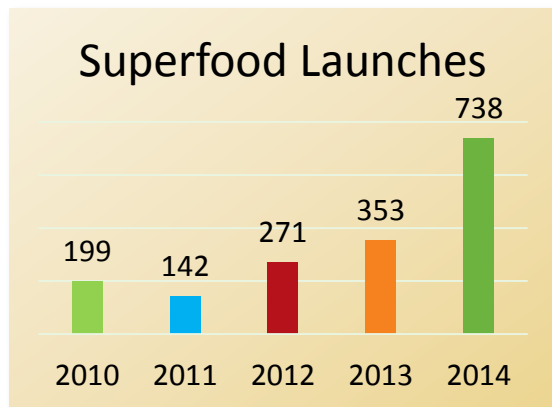
## A BETTER IDEA IN FRUIT & VEGETABLE POWDERS

CLEAN LABEL NUTRITION & SERVINGS  
IN HEALTHIER, MORE APPEALING PRODUCTS

# CLEAN LABEL IS THE NEW 'COST OF ENTRY'

Consumers won't accept less than clean label – and the market is differentiating by offering them that and more

- Consumers generally don't want to stop doing something or do less – they want to do more
- As consumers look for more natural ways to consume the daily required nutrients, natural health benefits in specific food categories are being highlighted. Ingredients **rich in good nutrients** are positioned as **superfoods**.



SOURCE: Innova Market Insights, April 2015



“food with integrity”  
“clean brands”

GROWTH THROUGH INNOVATION

# THE NEWEST REPORT ON NUTRITION

**SURPRISE: It's more fruit & vegetables**

**BETTER FOR PEOPLE.  
BETTER FOR THE PLANET.**



The overall body of evidence examined by the 2015 DGAC identifies that a healthy dietary pattern is **higher in vegetables, fruits, whole grains, low- or non-fat dairy, seafood, legumes, and nuts**; moderate in alcohol (among adults); lower in red and processed meat; and low in sugar sweetened foods and drinks and refined grains.

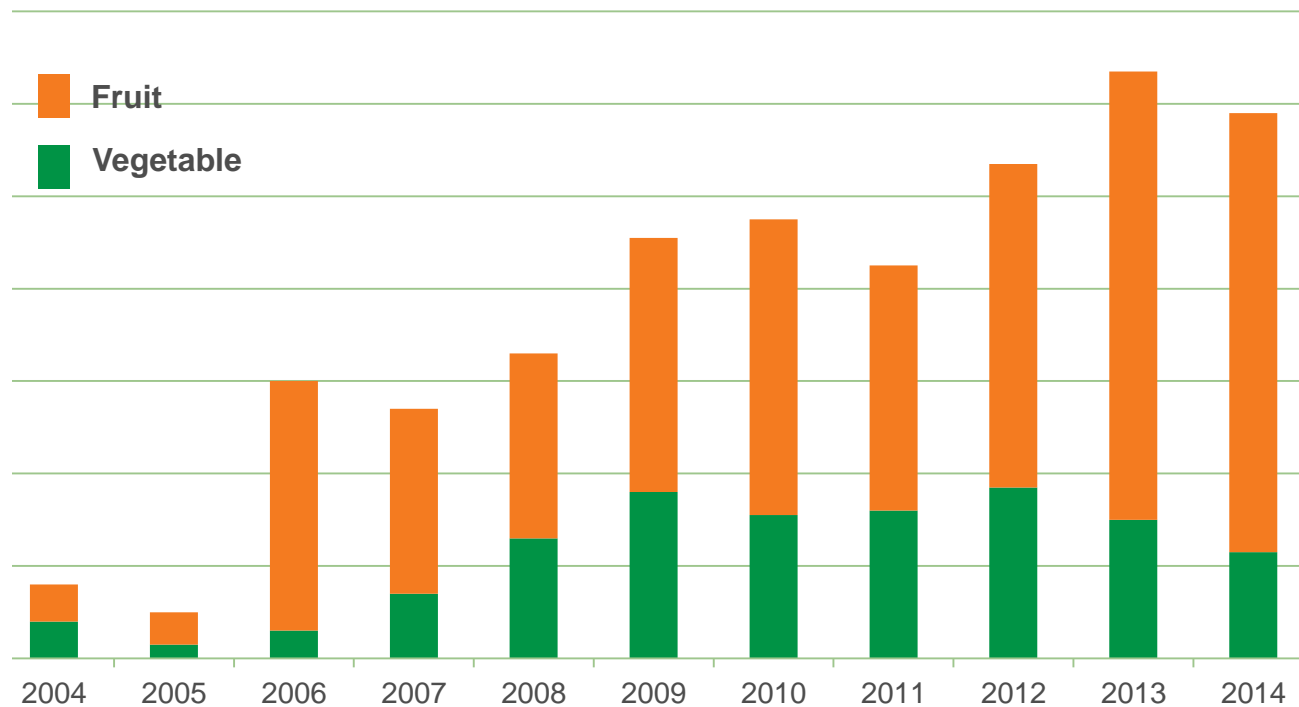
**“Vegetables and fruit are the only characteristics of the diet that were consistently identified in every conclusion statement across the health outcomes.”**

“The major findings regarding sustainable diets were that a diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods is **more health promoting and is associated with less environmental impact** than is the current U.S. diet.”

# ARE THINGS STARTING TO LOOK UP?

Megadrivers of USDA seeing traction in new product introductions

US Product Launches Per Year with  
FOP "Fruit & Vegetable Servings" Claims 2004-2014



Dramatic Increase vs. a Decade Ago

SOURCE: INNOVA Market Insights, June 2015



# RECENT 'SERVING SIZE' INTRODUCTIONS

Across the food product spectrum



1/2 serving per bar



1 serving per pie



2 servings per pack



2 servings per bar

# VIBRANT HARVEST® WHOLE FOOD POWDERS

Patented, radiant zone drying of high quality fruits & vegetables

PURE AND ORGANIC

EXCELLENT RETENTION OF NUTRIENTS AND ANTIOXIDANTS

NUTRIENT DENSITY – LESS PER SERVING SIZE

FRESH FLAVOR AND COLOR

HIGH DISPERSIBILITY AND SOLUBILITY

LONG SHELF-LIFE

SUSTAINABLY PRODUCED!!!



The best way to get serving sizes and the nutrients of fruits & vegetables into your products

# VIBRANT HARVEST<sup>®</sup> MANUFACTURING

A sustainable facility located near farms in Oregon



- 70,000 sq ft Facility (The Dalles, OR)
- SQF **Level 3** Certified by SCS Global
- Organic Certified by Oregon Tilth
- Kosher Certified by KOF-K
- **95% of power provided by solar & hydroelectric**
- **Low water footprint**

# EFFECTS OF OUR DRYING METHOD ON NUTRIENTS

Exceptional nutrient retention across all parameters

Vibrant Harvest Product	Compound Analyzed	Before Drying	After Drying
Blueberry Powder*	Total Antioxidant Capacity	680 mmol TE/g	700 mmol TE/g
	Total Phenolics	8.3 mg GAE/g	6.2 mg GAE/g
	Total Anthocyanins	1.7 mg C3G/g	1.6 mg C3G/g
Strawberry Powder**	Ascorbic Acid	3.47 mg/g	3.45 mg/g
	Total Phenolics	40.34 mg GAE/g	38.78 mg GAE/g
Acerola Powder**	Ascorbic Acid	364.2 mg/g	365.8 mg/g
Cranberry Powder**	Total Anthocyanins	2.73 mg/g	3.00 mg/g
	Total Phenolics	24.23 mg/g	25.17 mg/g
Carrot Powder***	Vitamin A	1285.17 IU/g	1322.98 IU/g

\*Published,

\*\*Manuscript in Preparation (no significant difference between before and after),

\*\*\*Experiment in progress

TE: Trolox Equivalents

GAE: Gallic Acid Equivalents

C3G: Cyanidin-3-Glucoside

IU: International Units



# NUTRIENT PRESERVATION

No significant loss of Vitamin C or antioxidants with Vibrant Harvest

## EFFECTS OF DRYING ON VITAMIN C IN STRAWBERRY<sup>1</sup>

	Vibrant Harvest	Freeze Drying
Fresh Fruit	347.5 ± 7.9	312.6 ± 11.9
Dried Powder	<b>345.3 ± 6.7</b>	<b>274.1 ± 12.8</b>
Loss of Vitamin C from Fresh Fruit to Dried Powder	No Loss	12.31%

<sup>1</sup>Presented at 2011 Berry Health Symposium

*umol TE per gram*



## EFFECTS OF DRYING ON ANTIOXIDANTS IN BLUEBERRIES<sup>2</sup>

	Before Drying	After Drying
Extract	23,850 ± 4.2%	22,340 ± 5.6%*
Juice	2,810 ± 14%*	3,180 ± 2.2%*
Puree	680 ± 14%*	700 ± 5.7%*

<sup>2</sup>CHAKRABORTY, *J Agric Food Chem.* 2010

\*Percent Standard Deviation or (%RSD)

# ADVANTAGES FOR VIBRANT HARVEST

When quality, nutrition and a clean label count

## “Fresh”



### Advantages of Vibrant Harvest:

- Logistics!
- Lower microbial degradation
- Longer shelf life
- Less food waste
- Ease of processing
- Control of water content
- Nutrient density

## Spray Dry/Drum Dry



### Advantages of Vibrant Harvest

- A cleaner label
- Cost for nutrition/servings
- Usually better flavor & color
- Better overall product quality
- Sustainability

## Freeze Dry



### Advantages of Vibrant Harvest

- Cost for nutrition/servings
- Better overall product quality
- Sustainability

# SERVINGS ARE A GREAT APPLICATION

A solid market opportunity that is getting more traction

## USDA MY PLATE REQUIREMENTS

- Fruits → 2 cups (4 servings)
- Vegetables → 2.5 to 3 cups (5-6 servings)

## ONE SERVING

## VIBRANT HARVEST POWDER\*

Kale	2.63g
Peach	8.84g
Pumpkin	5.02g
Strawberry	7.75g



## LOW ADDITION RATES & GREAT SENSORY

- You can **hide it** if you want!
- You can **feature it** if you want!

\*Based on USDA Nutrient Database and on raw material data. Individual lots will vary based on raw material.

# SYSTEMS WE LIKE FOR WHOLE FOOD NUTRITION

Not a scientific study, but intuitive/aspirational + customer inquiries

## FOOD & BEVERAGE

- RTE, Canned & Powdered Sauces
- Soups & Gravies
- Fruit Preparations for bakery, dairy, snacks & energy bars
- Ice cream & frozen desserts
- Dairy (instant, RTE, mousses, puddings, yogurt)
- Beverages/Beverages mixes
- Bakery



## SUPPLEMENT

- Sports Nutrition (powders, bars)
- Weight Management
- Multivitamin
- Selected condition specific



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