

“FIBERCOLLOIDS™” NATURAL FIBERS WITH HYDROCOLLOID FUNCTIONALITY

Tom Brown
Vice President
Florida Food Products, Inc



We Chemists



*Mr. Edgar Anders
Texture Technologist - Sanofi Bio-Industries
Year: 1988*





What have “WE” all been doing per the Chemical Industry?

Identifying, characterizing, isolating, and producing specific ultra purified “ingredients” to be incorporated into food products....



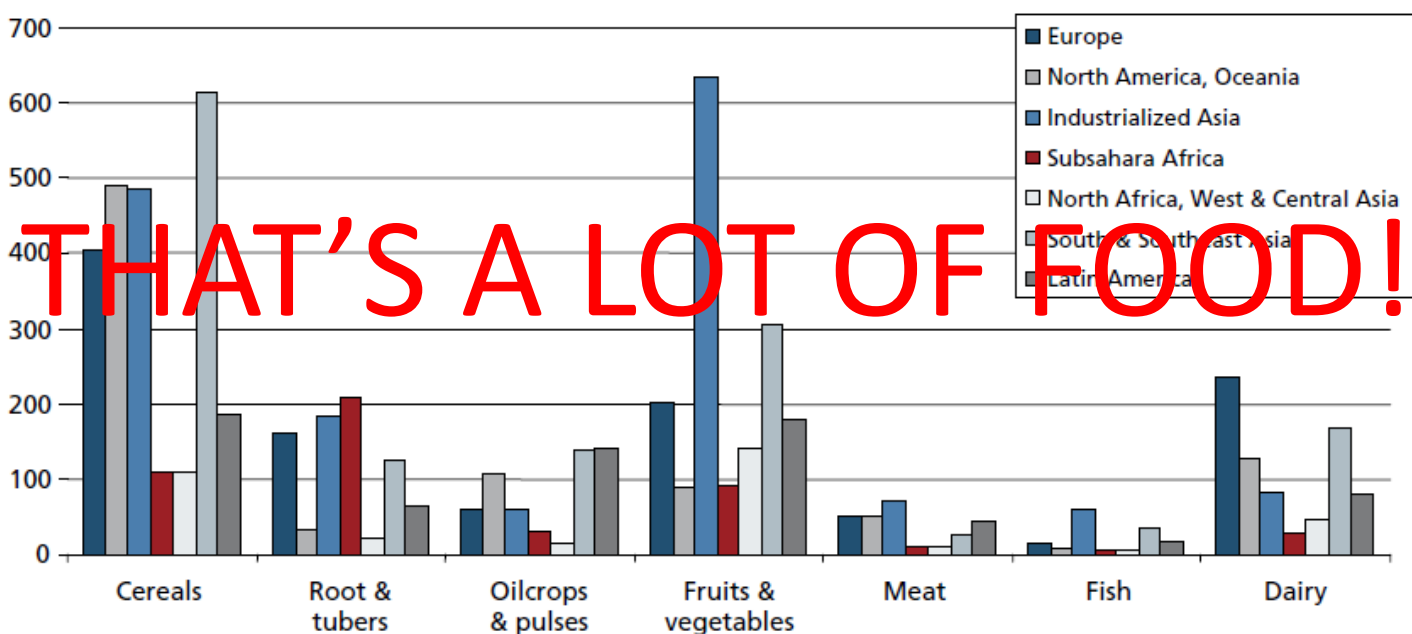
“Stupid” Chemists?

...and throwing everything else away



GLOBAL FOOD PRODUCTION

Production volumes of each Commodity Group (primary form), per region
(million tons)

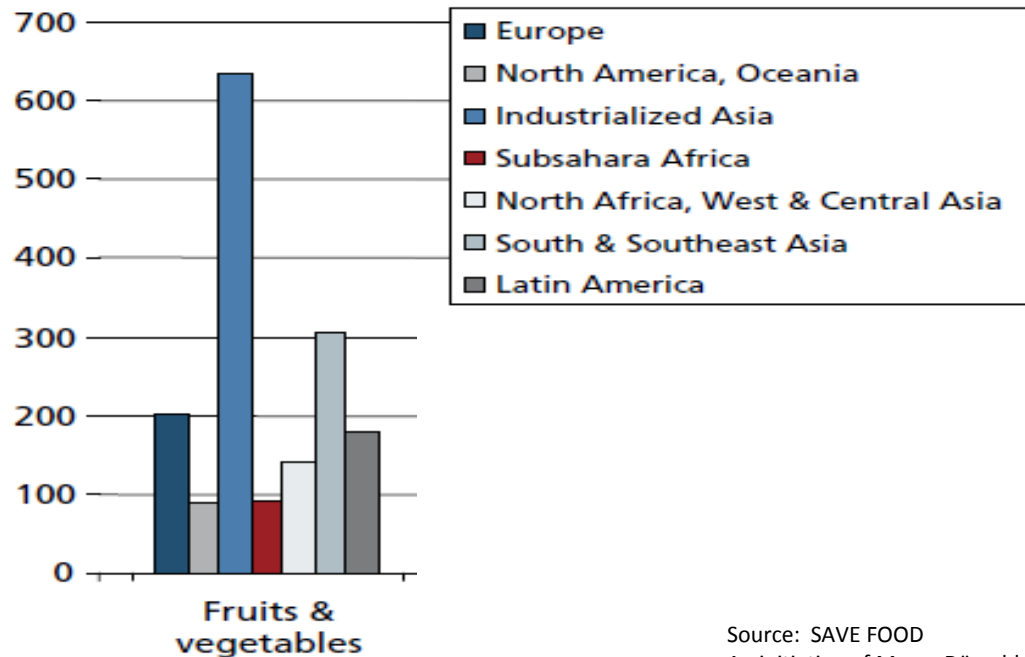


Source: SAVE FOOD
An initiative of Messe Düsseldorf in collaboration with FAO
www.save-food.org



GLOBAL FOOD PRODUCTION

Production volumes of each Commodity Group, per region
(million tons)

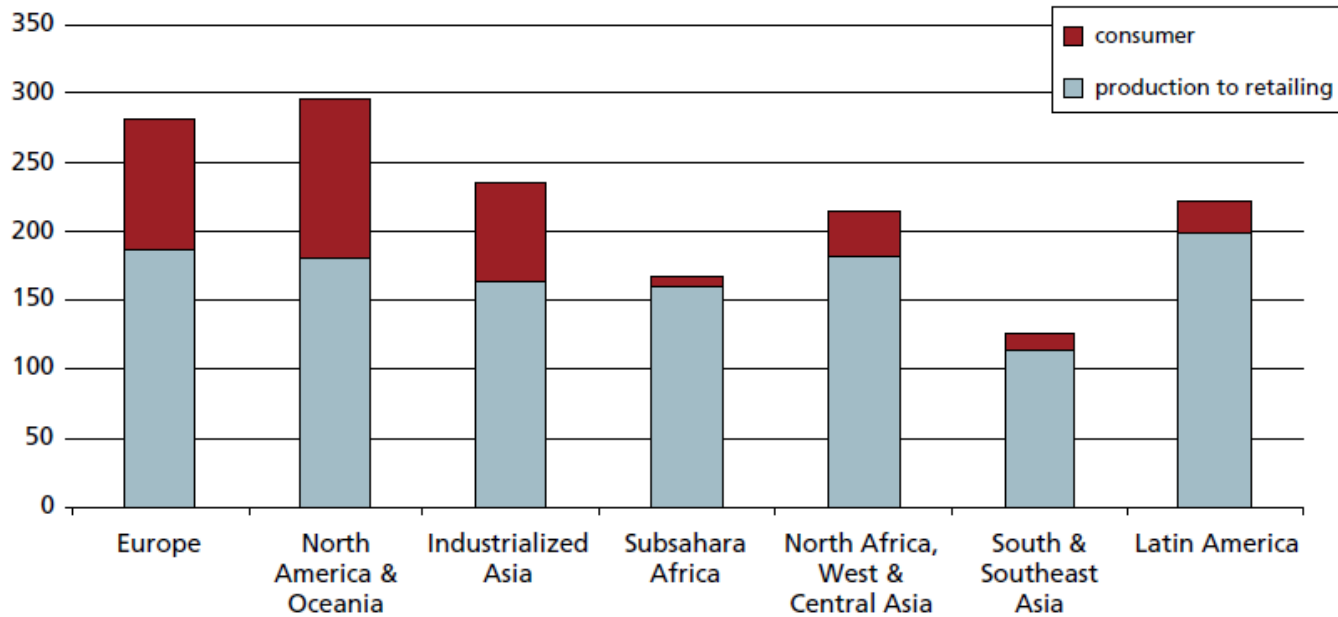


Source: SAVE FOOD
An initiative of Messe Düsseldorf in collaboration with FAO
www.save-food.org



GLOBAL FOOD WASTE

Per Capita Food Losses/Waste in Different Regions
(Kg/Year)



Source: SAVE FOOD
An initiative of Messe Düsseldorf in collaboration with FAO
www.save-food.org



GLOBAL FOOD WASTE



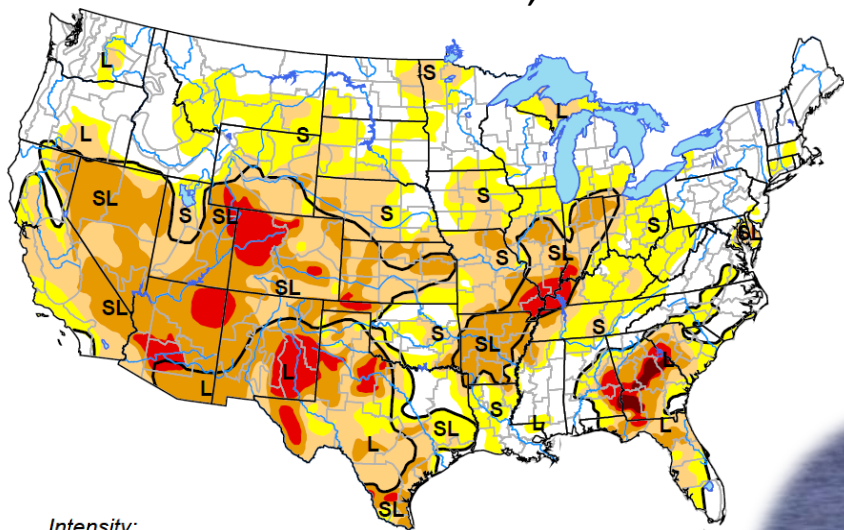
- ◆ **Four (4) Billion MT Food/Year**
- ◆ **1/3 of Food Produced goes to WASTE**
 - ◆ Resources for production (water, fossil fuels, etc)
 - ◆ Greenhouse gas emissions
- ◆ **Reasons?**
 - ◆ Financial, managerial, technical, storage, forecasting
 - ◆ Consumer careless behavior, purchase planning
 - ◆ Quality standards, expiration dates
- ◆ **Projection 2075**
...2.5 billion additional people to be fed



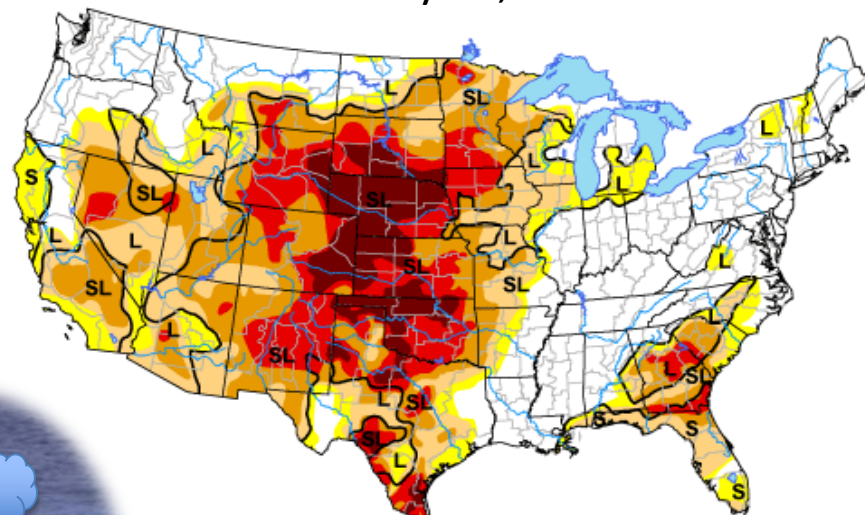
OTHER FOOD CONCERNS?

U.S Drought Monitor

June 19, 2012



February 19, 2013



Intensity:

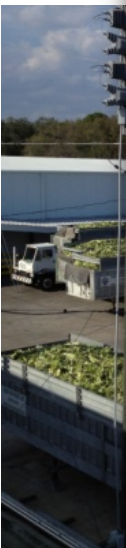
- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional



FIBER IN PLANT BIOMASS?

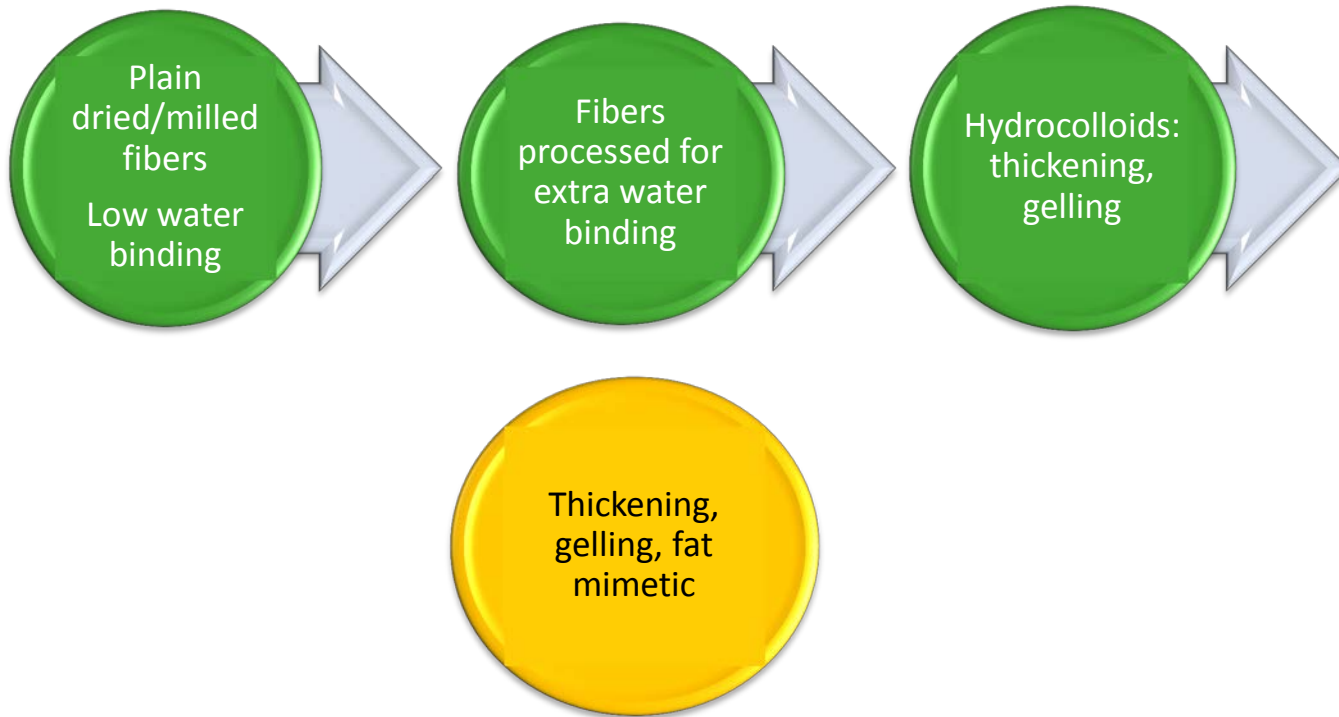


FIBER IN PLANT BIOMASS?



FIBER: WHAT'S AVAILABLE?

FIBER: WHAT'S AVAILABLE?



FiberColloids™

FIBERCOLLOIDS™



FIBERCOLLOID™

FIBERCOLLOID™

- ◆ “Activated fibers” from plant sources
- ◆ High water binding vs traditional fibers
- ◆ Gel.... akin to Alginates, Carrageenans, Pectins
- ◆ Thermal/retort stable gels
- ◆ Natural, minimally processed
- ◆ Consumer friendly label declarations (no E-number)
- ◆ Economical
- ◆ **MADE IN THE USA** by Florida Food Products



FiberGel LC[®]



- Gel Forming (thermal stable)
- F/T Stability
- Emulsification “character”
- Purge reduction
- Viscosity generation & Control
- Reduced Moisture Migration

- Re-structured Fruit, Veg, Meat Products
- Pasta/Frozen Entrees
- Beverages
- Bakery including Gluten-Free
- Vegetarian Products
- Low Sugar Jams, Preps, Bake Stable
- Soups Sauces and Gravies, Dips & Salsa
- Others.....



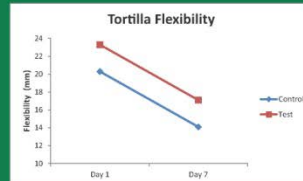
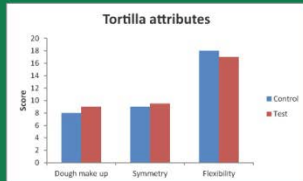
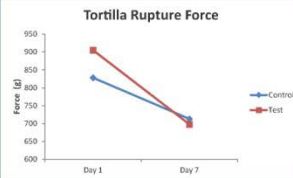
FiberGel LC®

The FiberGel LC® Equation:

Remove gluten while adding value

FiberGel LC® offers a combination of customer convenience, unique functionality, and consumer friendly labeling. This novel fiber retains moisture and structure in 100% Gluten-Free bakery products. FiberGel LC® is easy to use and offers a wide range of attributes in a myriad of bakery applications.

Priced competitively, FiberGel LC® can help you deliver high-quality, Gluten-Free products that will keep your customers coming back for more.



It's the right solution for you

Plot Data Provided By:

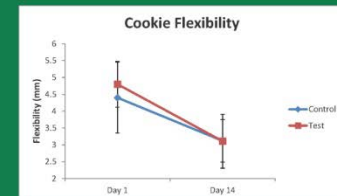
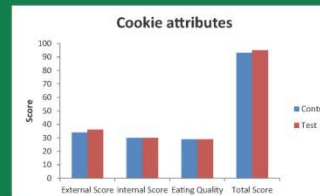
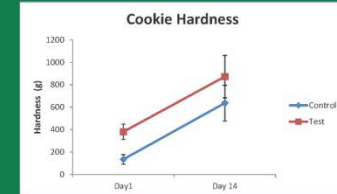
The FiberGel LC® Equation:

Egg Removal = Added Value

With its' potent combination of functionality, customer convenience and competitive pricing, FiberGel LC® can be used to create 100% Egg-Free bakery products. Not only is FiberGel LC® easy to use, it offers a wide range of attributes which give customers flexibility in most bakery applications and more.



The removal of Egg from bakery products can adversely affect texture, moisture, taste, and shelf-life. FiberGel LC® enables moisture management and structure in bakery foods which mitigates undesirable side effects. Priced competitively, FiberGel LC® can help you deliver high-quality, Egg-Free products that keep your customers coming back for more.



Florida Food Products, Inc.

Plot Data Provided By:



Control Formula- Hot Dog

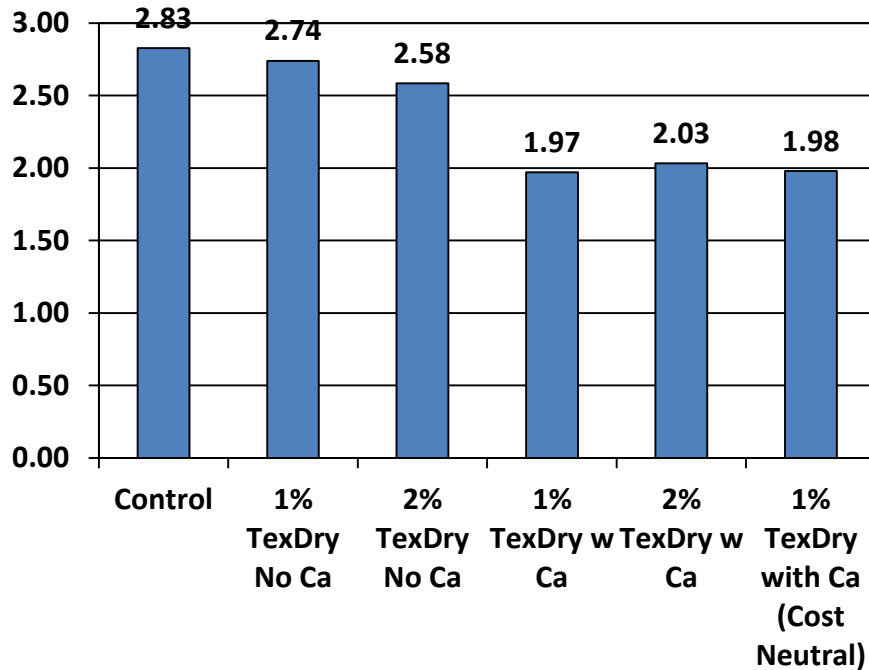
Control Formula- Hot Dog

Control										
INGREDIENT	INGREDIENT COMPOSITION			COST (\$/LB.)	100% Basis	CONTRIBUTION TO FORMULA				
	MOIST.	FAT	PROT.			MOIST.	FAT	PROT.	COST	
20 down chicken MDM	63.76	20.63	12.47	0.22	51.00	32.52	6.71	6.36	0.1122	
Pork fat (with a trace of lean)	17.60	77.48	4.73	0.26	23.00	3.99	17.57	1.07	0.0589	
Water	100.00	0.00	0.00	0.00	13.65	13.98	0.00	0.00	0.0000	
Corn syrup solids - 42 DE	21.00	0.00	0.00	0.20	6.00	1.27	0.00	0.00	0.0121	
Salt	0.00	0.00	0.00	0.06	2.00	0.00	0.00	0.00	0.0012	
Optiform PD4	60.00	0.00	0.00	0.80	2.50	1.47	0.00	0.00	0.0196	
Flavorings (spice) with erythorbate	2.00	2.00	14.00	1.48	1.02	0.02	0.02	0.14	0.0150	
Sodium tripolyphosphate	2.00	0.00	0.00	0.87	0.25	0.00	0.00	0.00	0.0019	
Curing salt (6.25% nitrite)	0.00	0.00	0.00	0.26	0.18	0.00	0.00	0.00	0.0005	
Dextrose	5.00	0.00	40.00	0.30	0.40	0.02	0.00	0.15	0.0011	
TOTAL					100.00	53.28	24.30	7.73	0.2227	
Added Water =				15.43	Yielded Data		49.02	26.41	8.40	
Non - meat protein =				0.32					%Yield	92.00
Meat Protein =				8.08						
40 Rule Total=				23.82					Yielded Cost	0.24

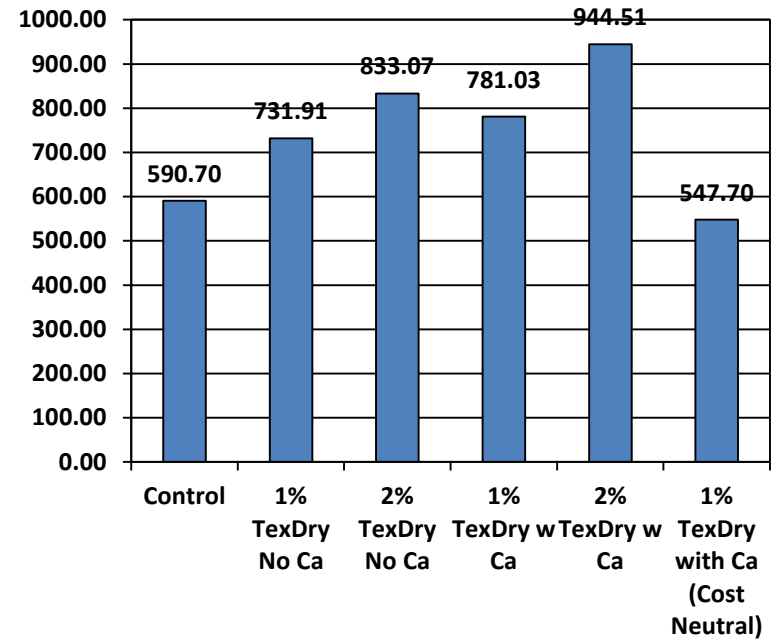


MDM Hotdogs with FiberGel LC for Hardness and Purge

Purge



Hardness



CHEMISTS...AND BUSINESS PEOPLE

- ◆ Open our eyes as Chemists
- ◆ Think “Green” and Sustainability
- ◆ Seek and develop technologies
- ◆ Don’t throw things away..find uses
- ◆ Food – Minimally processed
- ◆ Derive consumer friendly label declarations
- ◆ Think economics and viability
- ◆ **Change the World**



THANKS A BUNCH!
See us at Booth #762

