



GOFF 2009

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Presentation by Andrew Bunger

Fuji Vegetable Oil, Inc.

TRANS FAT

1. How Did We Get To Where We are Today?
2. Early Problems – No! No! No!
3. It Costs How Much?
4. New Formulations – Label, Functionality, and Price
5. Upcoming Trends and Regulation



THE FIRST PHASE

- In 2003 the FDA announced new regulations which required the labeling of trans fat in retail products beginning January 1, 2006.
- Earlier that same year Bantransfats.com set up a website and filed a lawsuit against Oreo making it the poster child for trans fat crusaders.
- Retailers start thinking about how to reformulate their products. All quiet on the food service front.



NO!

- No Trans Fat
- No Tropical Oils
- No Hydrogenation
- No (or low) saturates
- **NO PRICE INCREASE!**



THE PROBLEM REPLACING TRANS

- Trans fat is functional and stable.
- Trans fat is easy and inexpensive to produce through hydrogenation.
- The main raw material in North America for producing trans fat, PUFA in the form of soybean oil, is abundantly available.

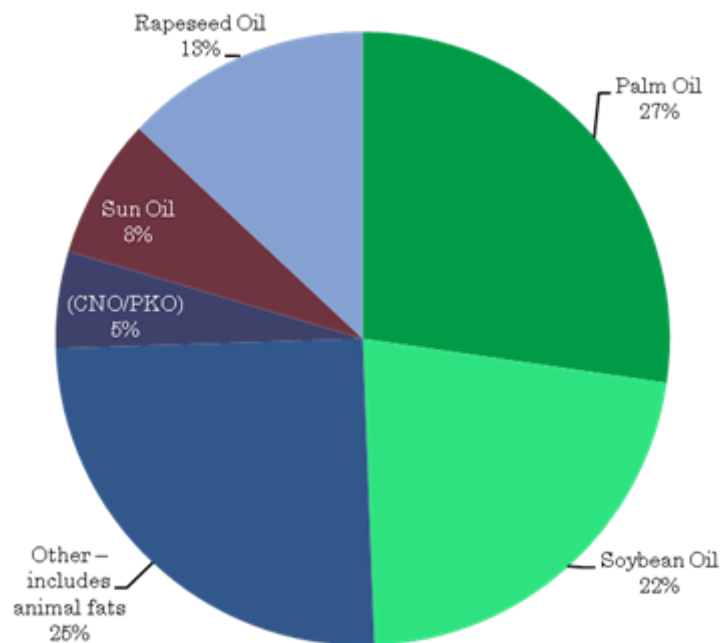
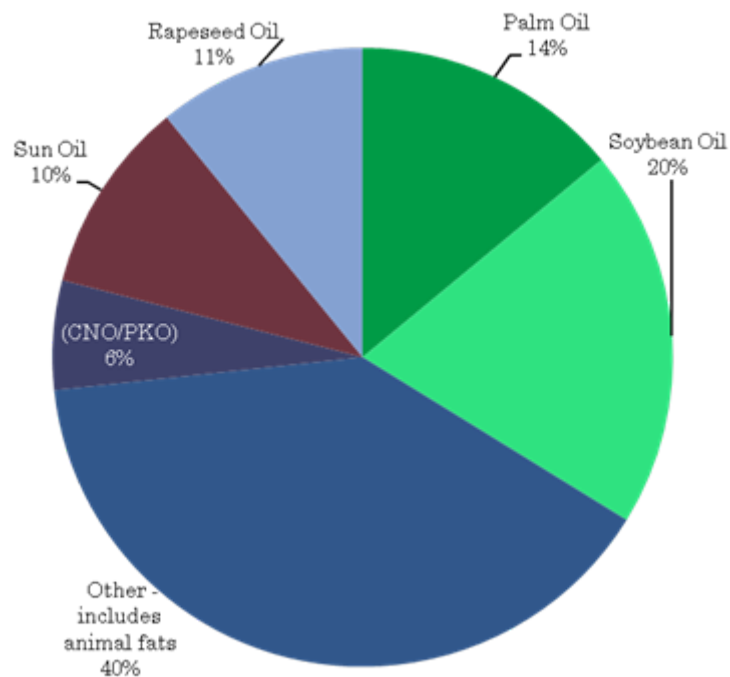
- Replacement fats:
 Functionality, Availability, Price



DISTRIBUTION OF OIL PRODUCTION

1990/91

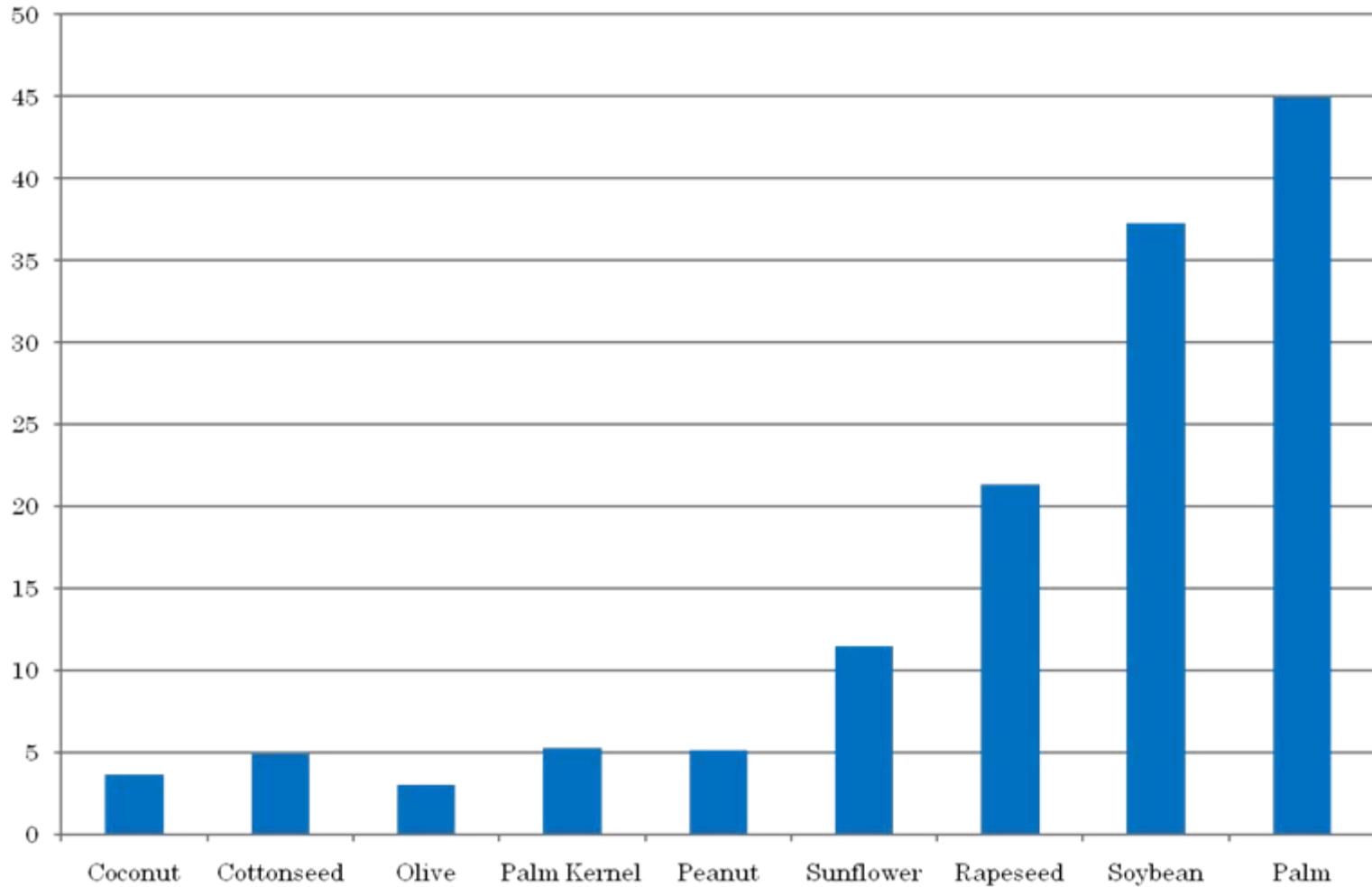
2008/09



SUPPLY OF MAJOR OILS AND FATS

(2009 IN MILLIONS MT)

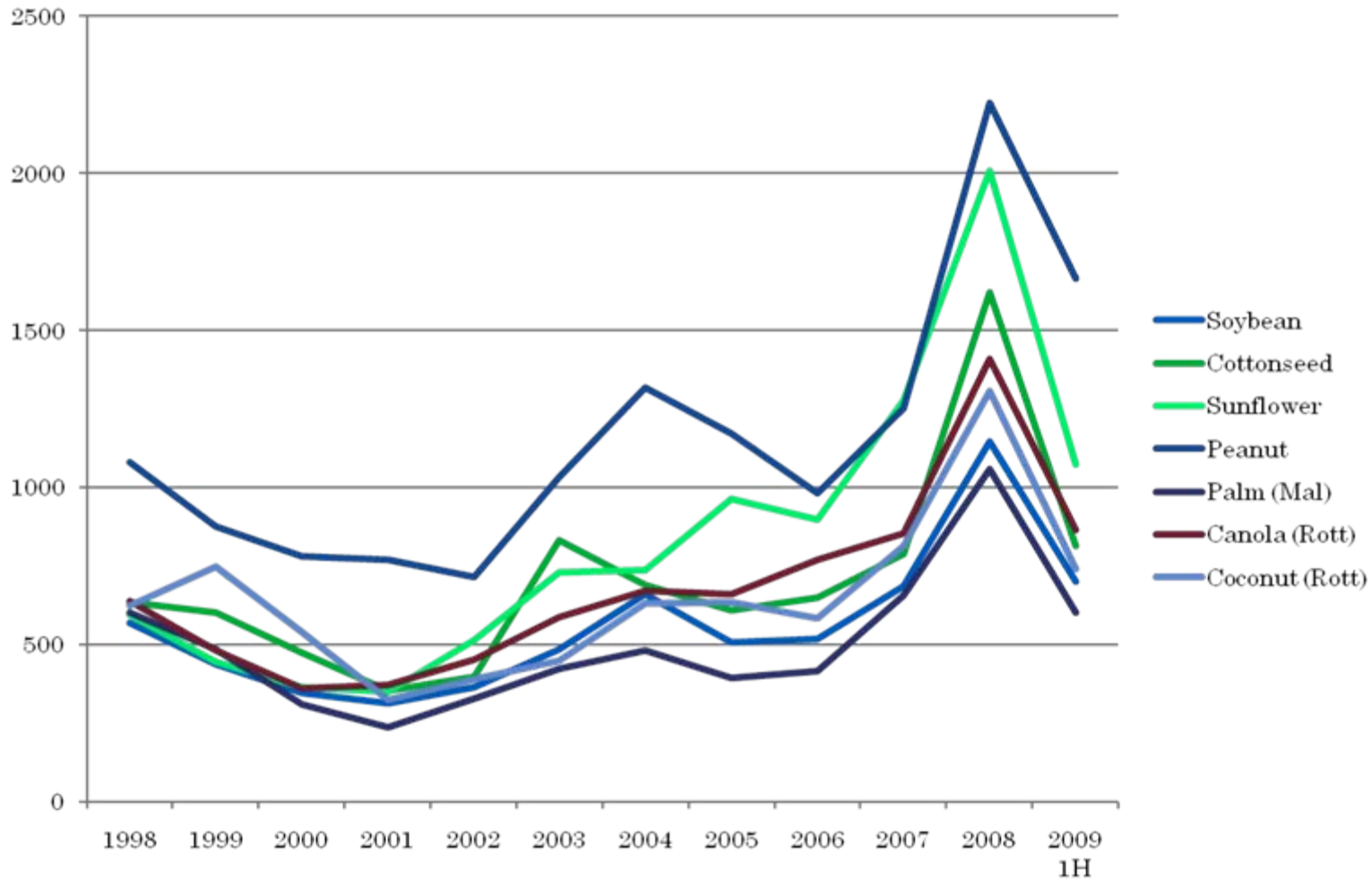
SOURCE: OILWORLD



PRICE OF VEGETABLE OILS IN US

\$ / MT

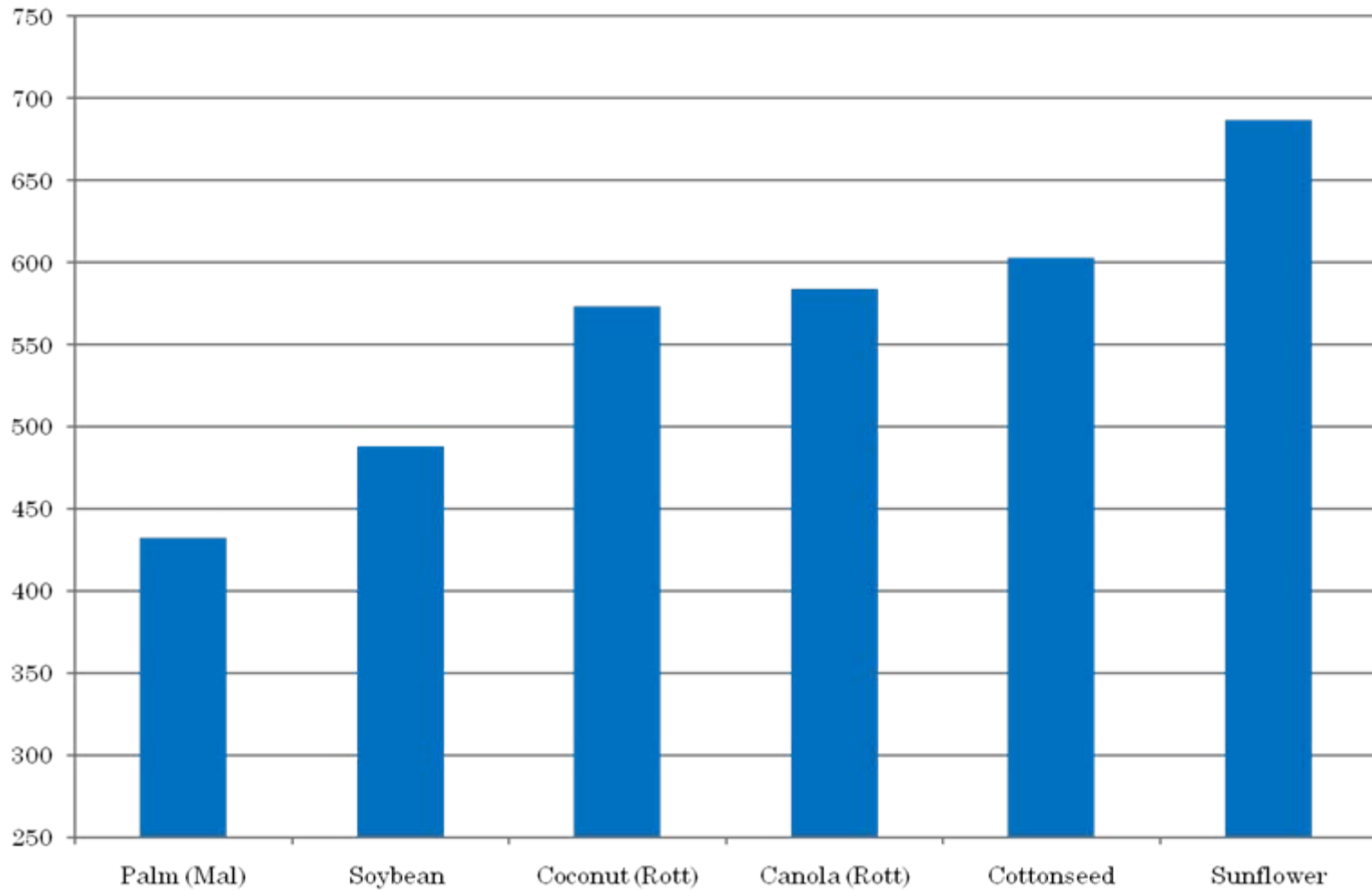
SOURCE: USDA



VEGETABLE OIL PRICES

1998 – 2007 AVERAGE \$/MT

SOURCE: USDA



REPLACING TRANS FAT

- In Frying applications it is relatively easy to replace the functionality of trans fat through the use of high oleic oils (sunflower, safflower, etc.) or palm oil.
- Additives like TBHQ and mixed tocopherols can be used to boost stability and fry life.
- Cost can be an issue but raw materials are readily available.



REPLACING TRANS FAT

- All purpose shortening is also relatively straight forward to replace using fractions of palm with or without soft oils.
- Hydrogenation (full) and interesterification
- Additives like TBHQ and mixed tocopherols can be used to boost stability.
- Extra processing adds to the cost. Raw materials are readily available.



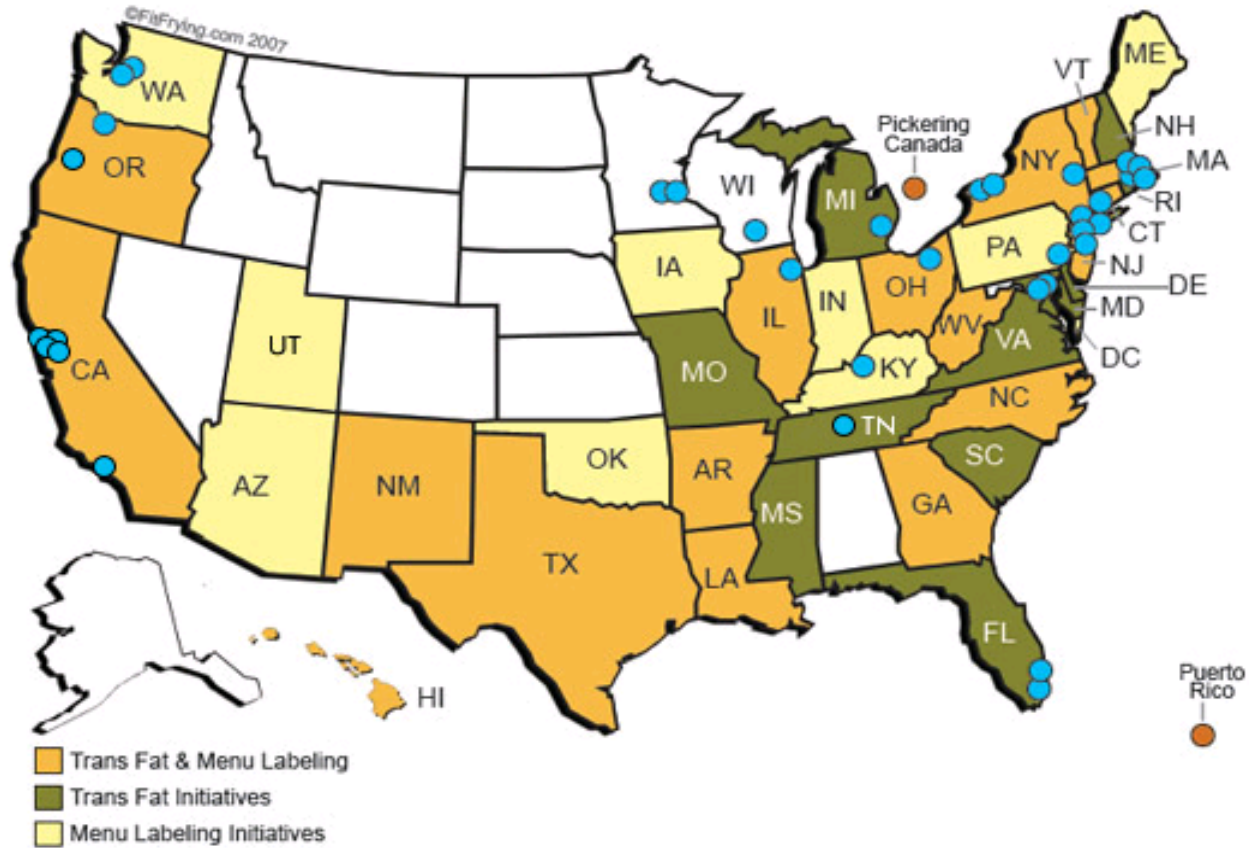
PHASE TWO

- Cities and States start to pass their own regulations
- In 2006 New York City was one of the first large metropolitan areas to ban trans fat in restaurants. Ban took full effect in July 2008
- California placed a ban on trans fat used by professional cooks which goes into effect January 1, 2010. Bakers have an additional year to change.
- Forces food service industry to prepare for change



TRANS FAT REGULATIONS

SOURCE: FITFRYING.COM



BAKING AND SPECIALTY APPLICATIONS

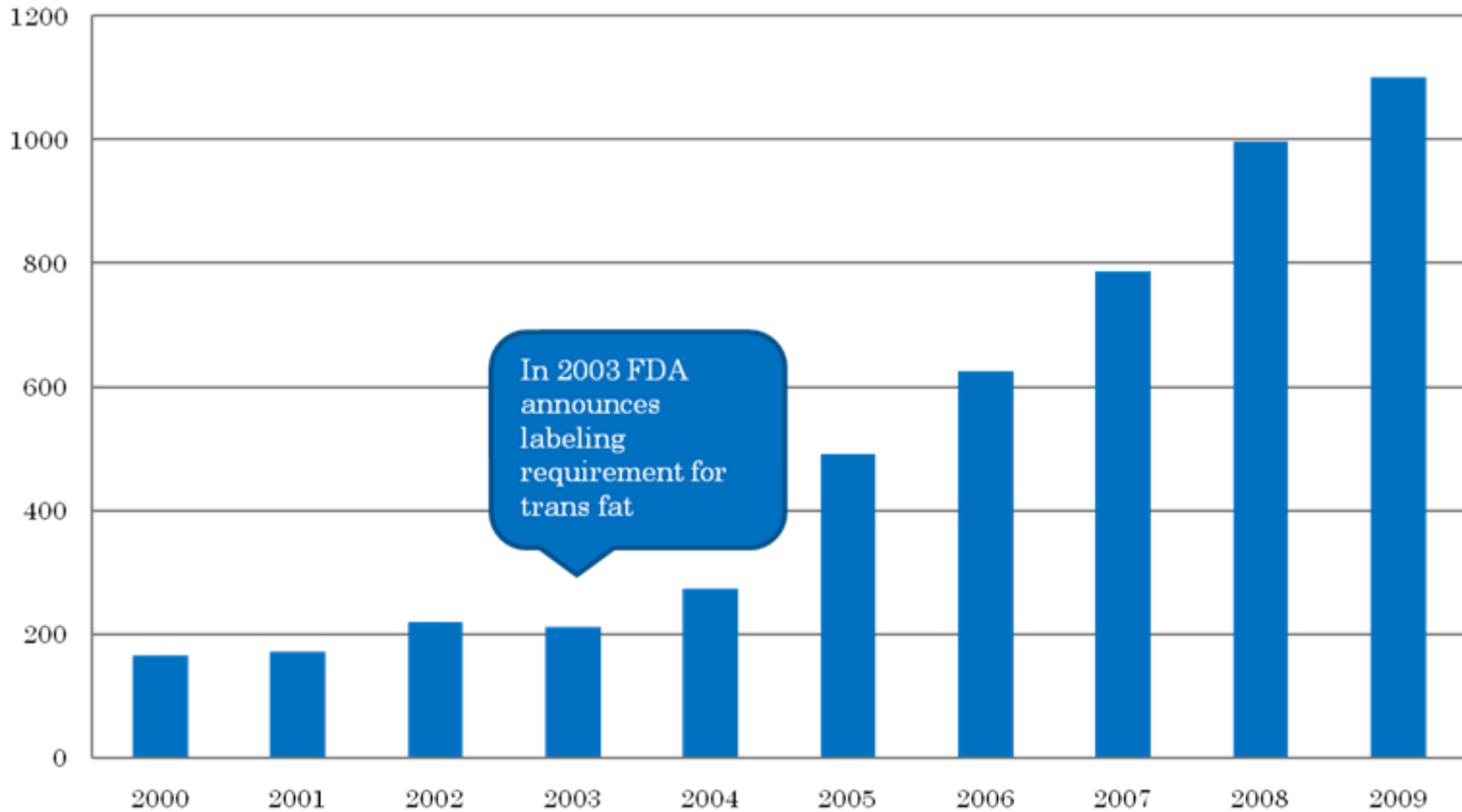
- Functionality is a big problem
- Fractionation, hydrogenation, interesterification, and blending are required.
- Significant cost increases due to extra processing and use of more expensive fractions
- Some fractions have limited availability



PALM OIL IMPORTS SURGE

SOURCE: OILWORLD

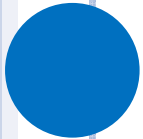
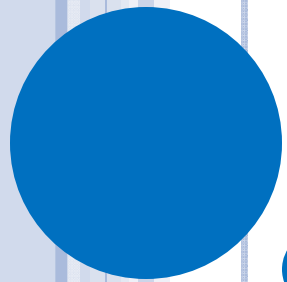
Palm Oil Imports to United States (000's metric tons)



TRANS FAT LEGISLATION AND REGULATIONS – U.S.

- Congressman Israel (D-NY) introduced a bill (H.R. 3317) which would require trans fat to be labeled with an asterisk (*) indicating the product contains less than .5g per serving of trans fat. This would replace the current regulation which allows trans fat less than .5g per serving to be labeled as “zero” trans. The bill has not passed the House but bears watching.
- There is a citizens petition submitted to the FDA which requests that all partially hydrogenated vegetable oils be banned from use in food in the U.S.





THANK YOU.