

# Maintaining and Increasing Corn Oil Value

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# Why Am I Talking To You Today

- Update on the state of corn oil as a product
- Where the markets are going
- How to hold onto your value for corn oil
- How to increase profitability of corn oil

# A Little Bit About Us

- Been in fats and oils business for over 25 years
- 3 veg oil processing facilities
- Robust supply chain of all types of lipids, we see all kinds of fat



## A Little More About Us...

- Full wet lab dedicated to Fats and Oils
- Staff of Chemical Engineers and Researchers working on Lipid R&D



# What Has Changed

- More volume?
- More transparency?
- More demand?
- More efficient market?
- More surfactants....

## From 2011 Presentation:

- 19% ~ 48 plants have oil extraction technology
  - Will likely grow to 100 plants in the next 12 months
- Corn is between \$6 and \$8
- Systems are installed for \$3mm+
- Corn oil is worth \$0.45+



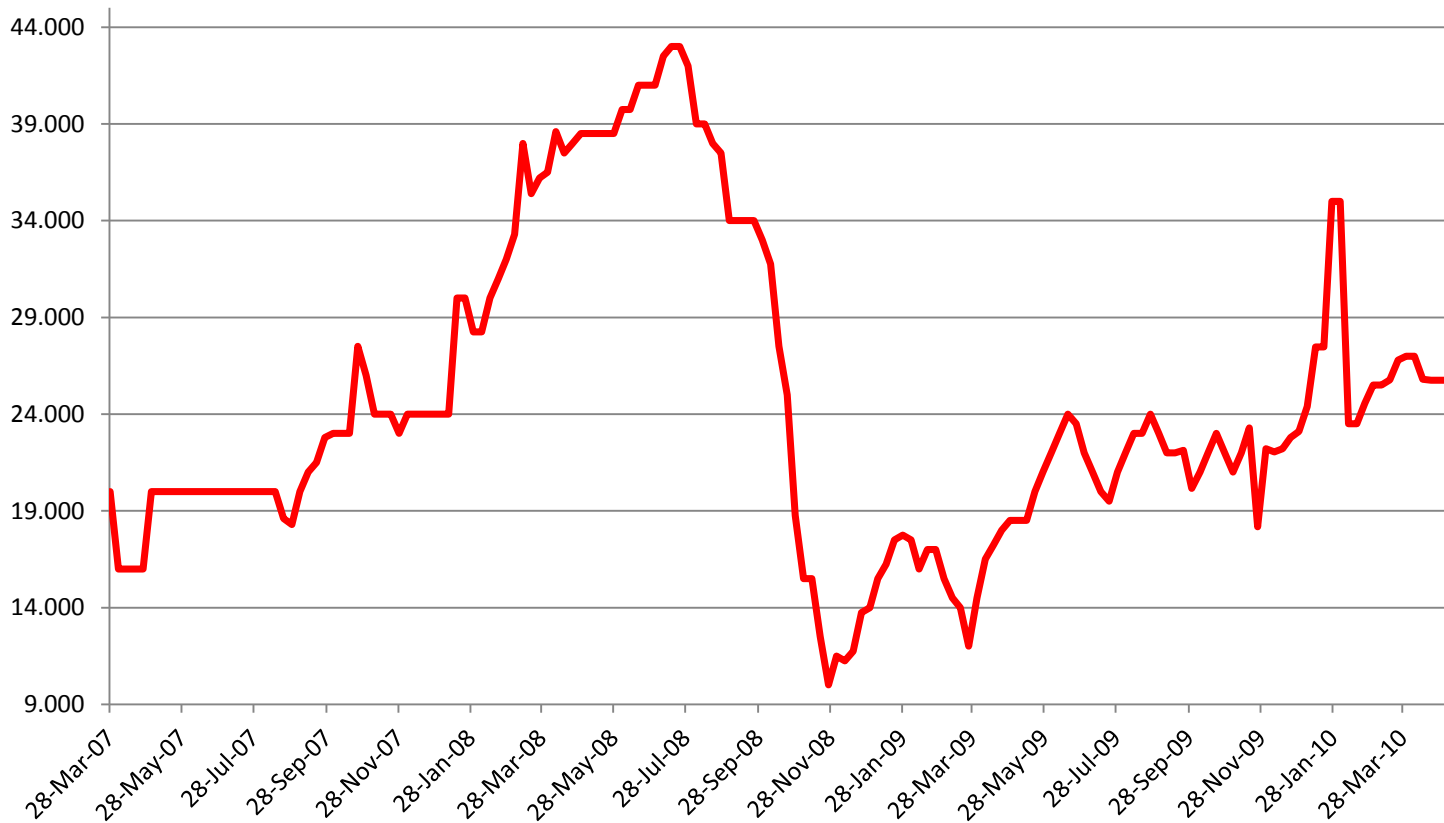
# What Has Changed???

# Today

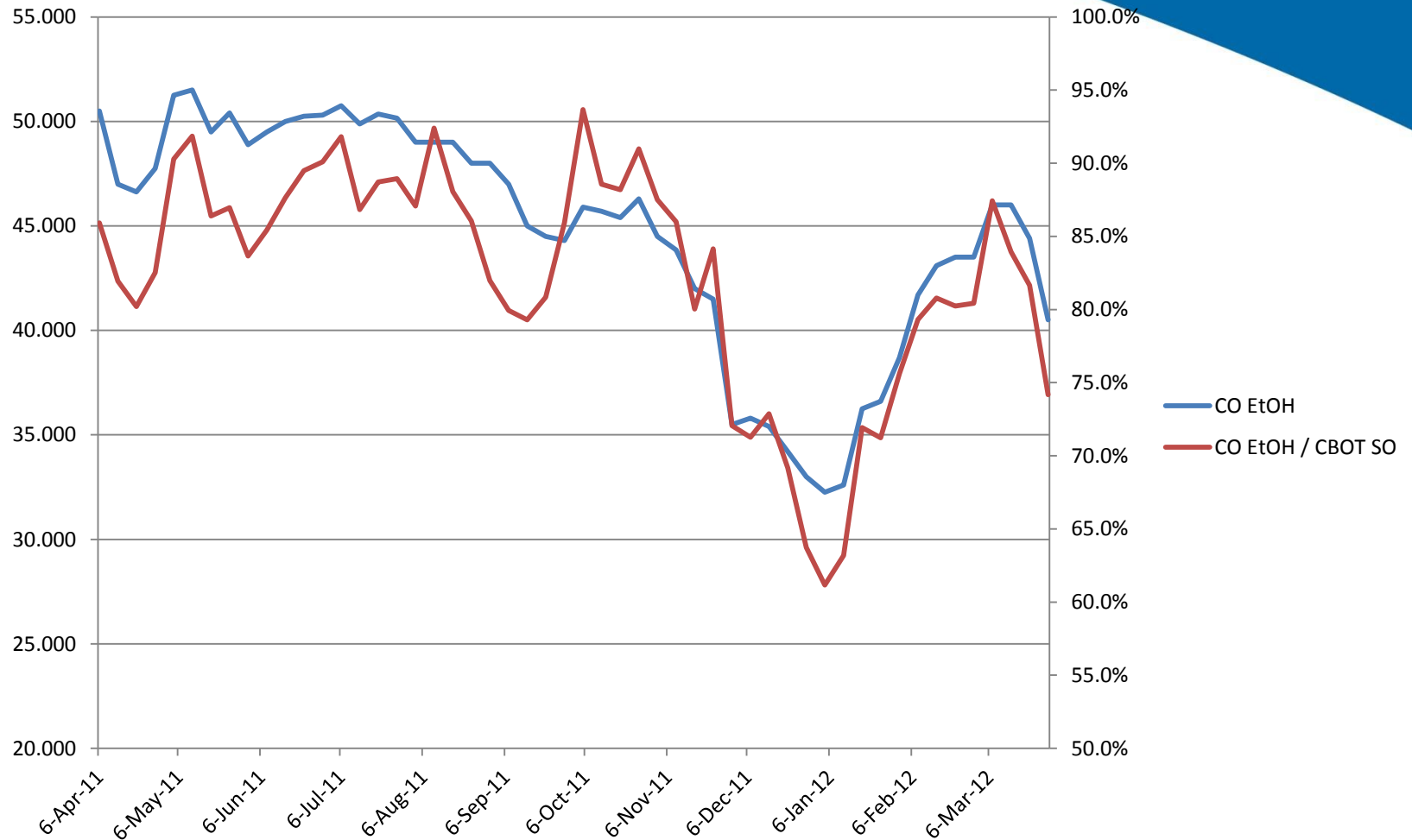
- ~80% of capacity installed or installing
  - Will be at 80+% by end of the year
- Corn is inverse at \$5.79 for July contract
- Corn oil is trading today around \$0.38
- Prices are being reported by at least two respected fats and oils publishing groups
  - Informa Economics
  - The Jacobsen



### Corn Oil Average Price 2007 to 2010



## Corn Oil Value and CO as % of Soy



# Corn oil Pulled To Market

- Demand Pulled By Biodiesel, Feed and Export
  - Biodiesel looking for cheaper alternative
  - Export, looking for value markets in feed, biodiesel and other...
  - Hydro crackers- need cheaper feed stock
  - Feed looking for Kcals/lbs

# Issues with Feed

- AAFCO definition?
- FSMA (food safety modernization act) focusing feed users on safe food products
- Pesticides
- Antibiotics
- Chemistry for extraction
  - What will USDA and FDA think about self certified GRAS?

# Why Not More Markets?

- Handcuffed By High FFA
  - 10-15%
- Handcuffed by Waxes
  - Much to learn and discover about wax



# How To Maintain Higher Values

- New markets will need to be developed
- Alternative Bio-based Markets
  - Oleochem
    - Coatings
    - Plastics
    - Surfactants???
    - Other
  - Export
  - OTHERS!!



# Today's Corn Oil Constraints

- Plant infrastructure
  - Average Only 4 Days Storage Capacity At EtOH Plant
- Inherent Quality
  - “Damaged” High FFA Oil Is Barrier Into Oleochemical, Export & Food Markets
- Logistics
  - Rail cars and rail car loading at EtOH Plants

# How To Remove Barriers

- Key Quality Points
  - FFA's
  - Waxes
- Transportation Systems
- De-couple From Nontransparent Commodity Pricing





# So... What's next?

# What Is Next

- Adding value to corn oil to open new markets and maintain profitable corn oil
- Extraction of corn oil constituents
  - Carotenoids, Tocopherols, Phytosterols
- Removal of all Free Fatty Acids

# Corn Oil One

- Low FFA corn oil will command a premium
  - Premium will exceed value of loss of FFAs removed
  - New and diverse markets will be able to better utilize ethanol corn oil
- Bolt on system
- Novel technology

# Takeaways

- Corn oil supply is increasing
- Price is volatile
- New value added markets are needed to use supply and maintain today's market prices
- Removal of free fatty acids creates new markets
- Have a good corn oil partner