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 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

The ONE For Value Added Corn Oil Solutions  www.fecsolutions.com
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