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**CME Group**

# Grains and Oilseed Spread Trading

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As with all investments, your capital is at risk

# CME: Understanding Spread Trading

IBKR-2024

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Fundamental of Agri market

Cash Forward & Basis market

Understanding Derivative & price curve

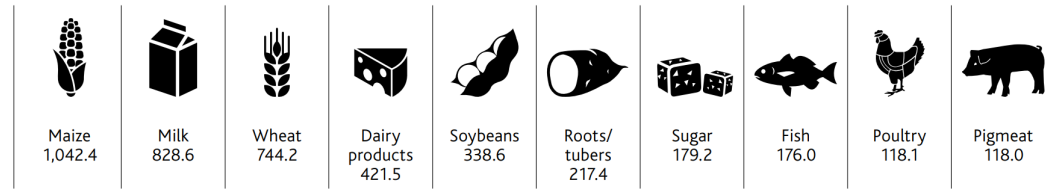
Grains & Oilseed- Introduction

Commodity Spreads-Opportunity

Conclusion

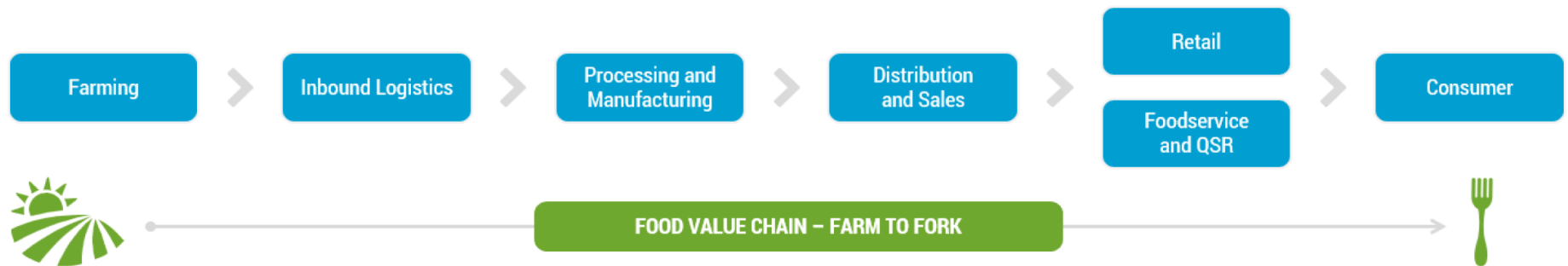
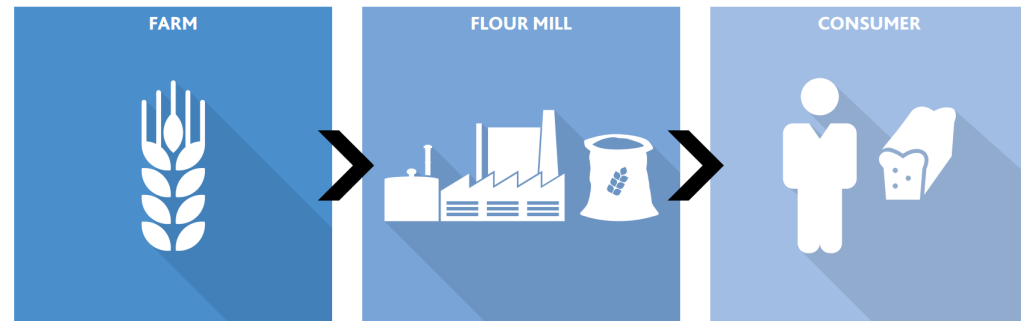
# Agri commodity

The main categories of agricultural commodity include grains and oilseeds (corn, soybean, oats, rice, wheat), livestock (cattle, pigs, poultry), dairy (milk, butter, whey), lumber, textiles (cotton, wool) and softs (cocoa, coffee, sugar).



Source: OECD-FAO Agricultural Outlook (Edition 2017)

## BASIC SUPPLY CHAIN PROCESS FOR WHEAT



# Cash, Forward & Basis Market

## **Cash Price - Futures Price = Basis**

Futures Price = Cash Price - Financing Costs + Cost of Carry (storage, security, transportation)

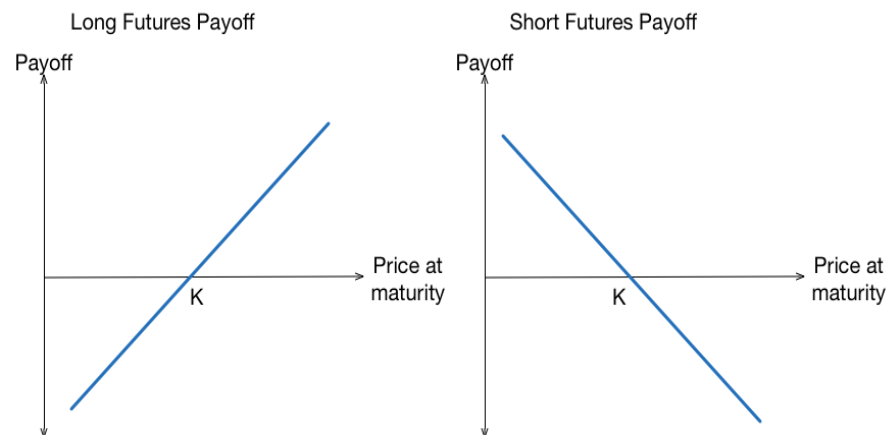
**Basis Strengthening** – Cash gains relative to futures more positive or less negative -> benefits short hedgers (commodity sellers)

**Basis Weakening** – Cash declines relative to futures less positive or more negative -> benefits long hedgers (commodity buyers)

# CME- Agri Derivative contract

A futures contract is a financial contract obligating the buyer to purchase an asset or the seller to sell an asset, such as a physical commodity or a financial instrument, at a predetermined future date and price.

In other words, a future is a standardized contract between two parties, to trade an asset at a specified price at a specified future date.

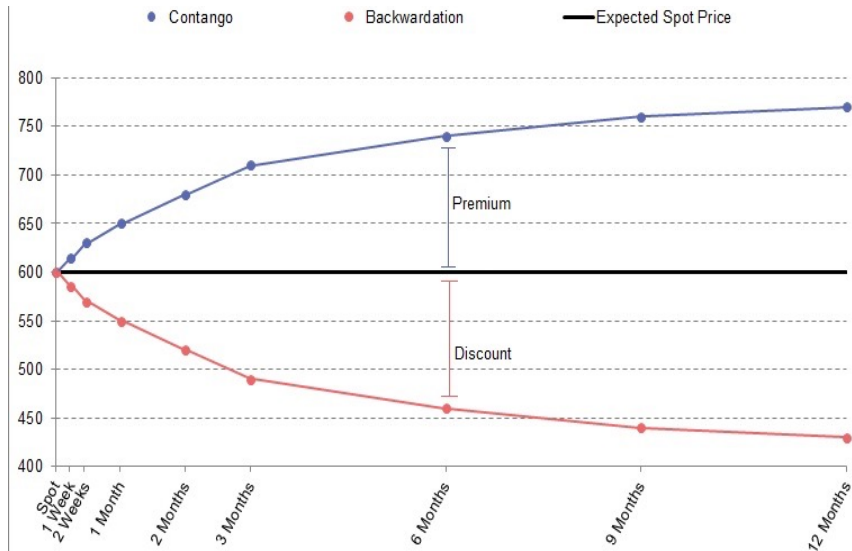


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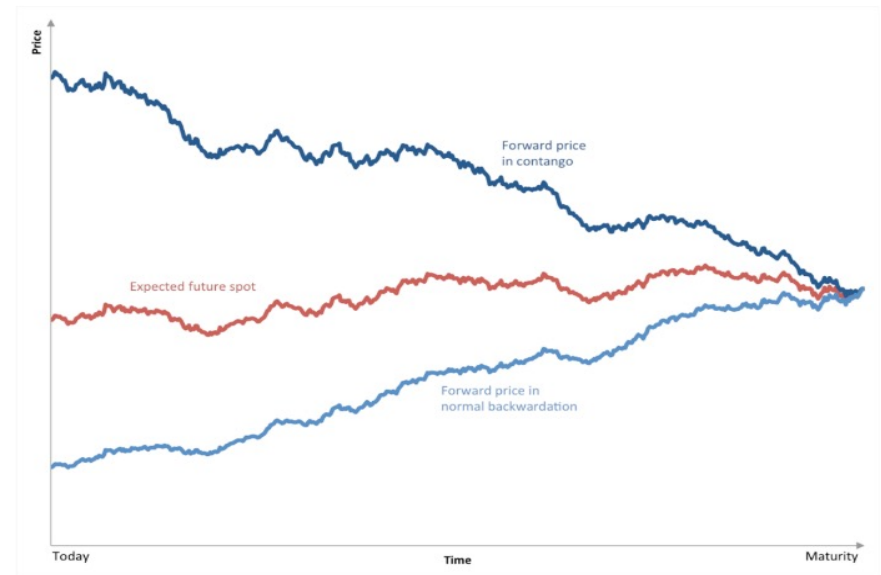
<b>CONTRACT UNIT</b>	60,000 pounds
<b>PRICE QUOTATION</b>	U.S. cents per pound
<b>TRADING HOURS</b>	<p><b>CME Globex:</b> Sunday - Friday: 7:00 p.m. - 7:45 a.m. CT and Monday - Friday: 8:30 a.m. - 1:20 p.m. CT</p> <p>TAS: Sunday - Friday 7:00 p.m. - 7:45 a.m. and Monday - Friday 8:30 a.m. - 1:15 p.m. CT</p> <p><b>CME ClearPort:</b> Sunday 5:00 p.m. - Friday 5:45 p.m. CT with no reporting Monday - Thursday from 5:45 p.m. - 6:00 p.m. CT</p>
<b>MINIMUM PRICE FLUCTUATION</b>	<p>1/100 of one cent (0.0001) per pound = \$6.00</p> <p>TAS: Zero or +/- 4 ticks in the minimum tick increment of the outright</p>
<b>PRODUCT CODE</b>	<p><b>CME Globex:</b> ZL <b>CME ClearPort:</b> 07 <b>Clearing:</b> 07 <b>TAS:</b> ZLT</p>
<b>LISTED CONTRACTS</b>	15 monthly contracts of Jan, Mar, May, Aug, Sep and 12 monthly contracts of Jul, Oct, Dec listed annually after the termination of trading in the December contract of the current year
<b>SETTLEMENT METHOD</b>	Deliverable
<b>TERMINATION OF TRADING</b>	Trading terminates on the business day prior to the 15th day of the contract month.
<b>TAM OR TAS RULES</b>	Trading at Settlement (TAS) is subject to the requirements of Rule 524.A. TAS trades off a "Base Price" of zero (equal to the daily settlement price) to create a differential versus the daily settlement price in the underlying futures contract month. The TAS clearing price equals the daily settlement price of the underlying futures contract month plus or minus the TAS transaction price
<b>SETTLEMENT PROCEDURES</b>	<a href="#">Soybean Oil Settlement Procedures</a>

# Financial Derivatives Contracts – Futures



Contango and backwardation are terms used to define the structure of the forward curve.

As futures become spot contract, the futures price and spot prices converge.





# Grains & Oilseeds- Overview

Grains and Oilseeds are crops are annual perennial crop with primary usage of human, feed and energy consumption

CME allows producer/consumer and trader to effectively manage risk:

- Oats
- Rice
- Corn
- Three classes of wheat
- Soybeans and soybean byproducts:
  - Soybean oil and soybean meal

## Fundamental Price Factors

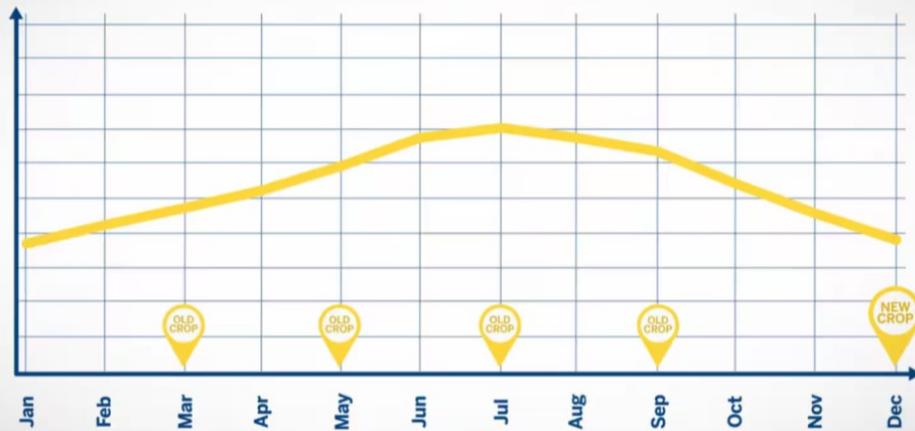
- 1) Seasonality
- 2) Carry out stock
- 3) Sowing & Acreage
- 4) Yield
- 5) Govt duties
- 6) Weather
- 7) Macro
- 8) Others

# Seasonality- Grains

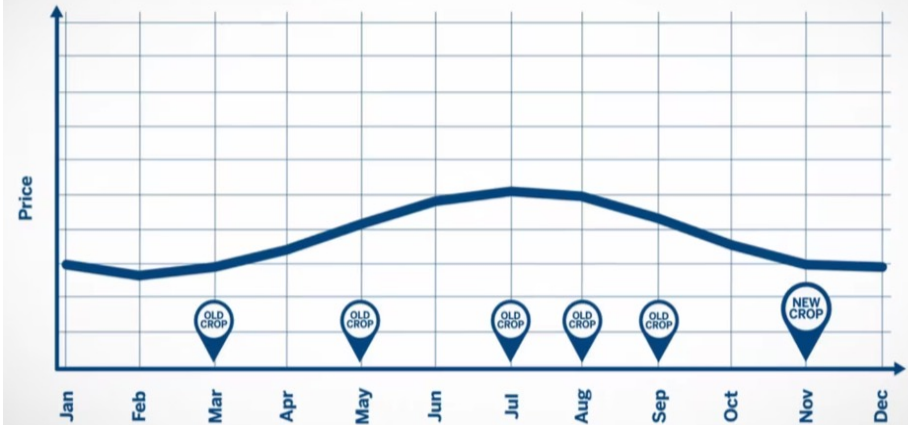
## Wheat



## Corn



## Soybeans



Planting to harvesting to marketing goes through a specific timeline between Northern and southern hemisphere.

The Pricing between season will be affected by other fundamentals, such as weather and production in other grain importing or exporting countries.

General understanding of the seasonality in grain markets and the potential impact on grain prices is important to anyone planning a Grains or Oilseeds futures trading strategy.

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# Calendar Spreads

Simultaneous buy and sell orders for the same commodity with different delivery months.



Source- Barchart

## Strategy- 1- Old crop vs New Crop

The standardized trading months for Corn, Soybean and Wheat futures reflect the seasonal patterns for planting, harvesting and marketing the underlying crop. These trading months are also indicative of the source of supply at any particular time.

Grain seasonality is quite evident, both north and southern hemisphere crop is large and goes through the cycle of boom & bust.

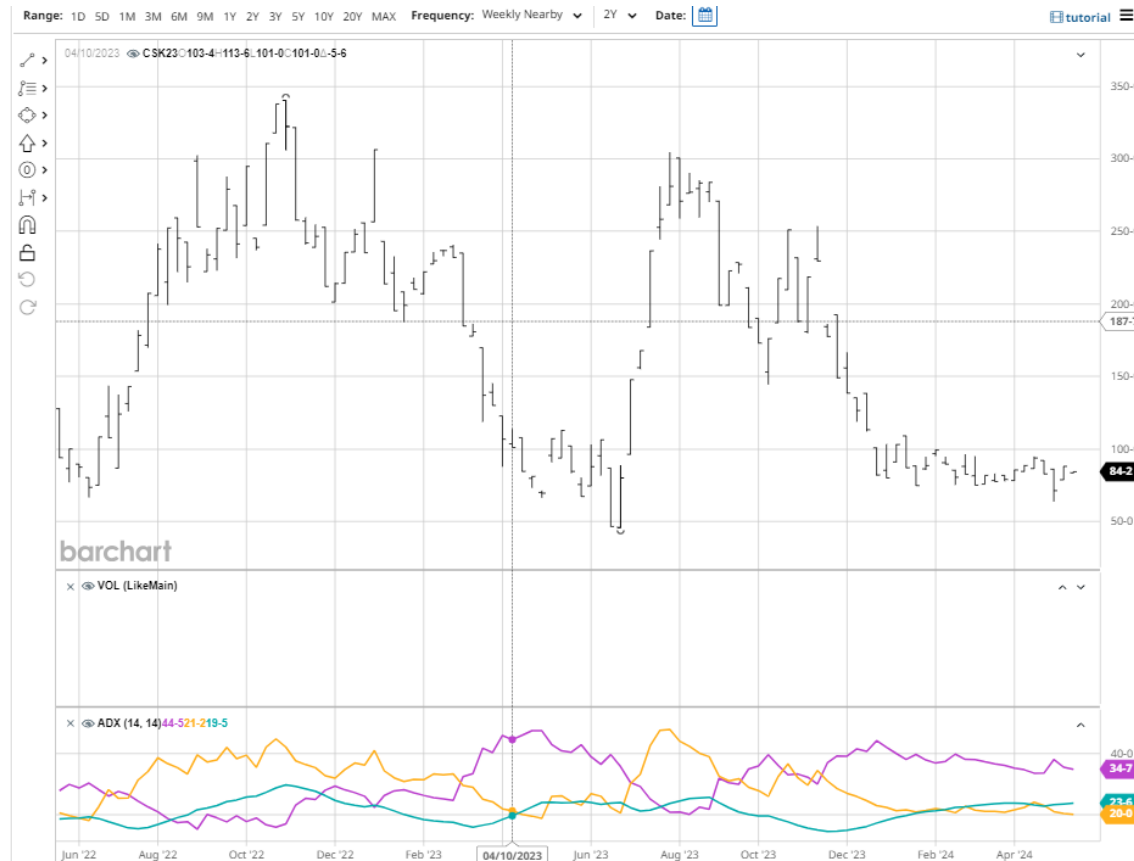
## Soybean Jul-Sep Spread

Very popular spread among fundamental traders and reflect the carry out stock and crop estimates

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# Intra Commodity Spread

Simultaneous buy and sell orders for different commodity with different delivery months.



## Strategy 2: Soybean Crush Spread

An inter commodity spread to measure the gross soybean processing margin.

Eg: Nov-Dec Board Crush is to capture the new crop crush margin. Buy Nov Soybeans and sell Soymeal and Soybean Oil.

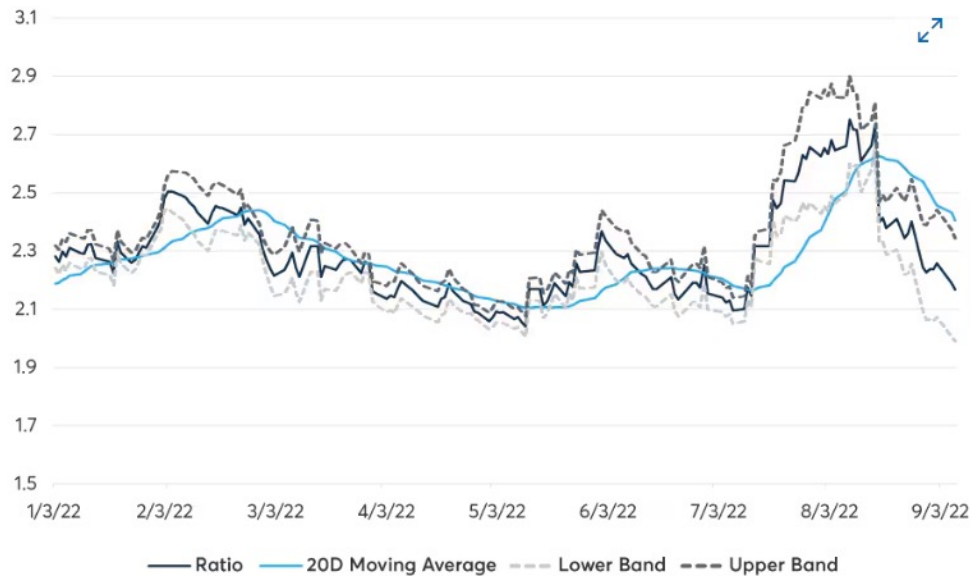
When a bushel of soybeans weighing 60 pounds is crushed, the typical result is 11 pounds of soybean oil, 44 pounds of 48 percent protein soybean meal, 4 pounds of hulls and 1 pound of waste.

$$[(\text{Price of Soybean Meal (\$/short ton)} \times .022) + \text{Price of Soybean Oil (\$/lb)} \times 11] - \text{Price of Soybeans (\$/bu.)}$$

Another example - July-December Corn spread.

Source- Barchart

# Intra Commodity Spread



## Strategy 3- Soybean vs Corn Ratio

Soybean and corn trades in a narrow ratio band and is an indicator of US grain planting. This price ratio guides the grain producers to review planting decisions, to decide whether to plant more of one commodity versus the other.

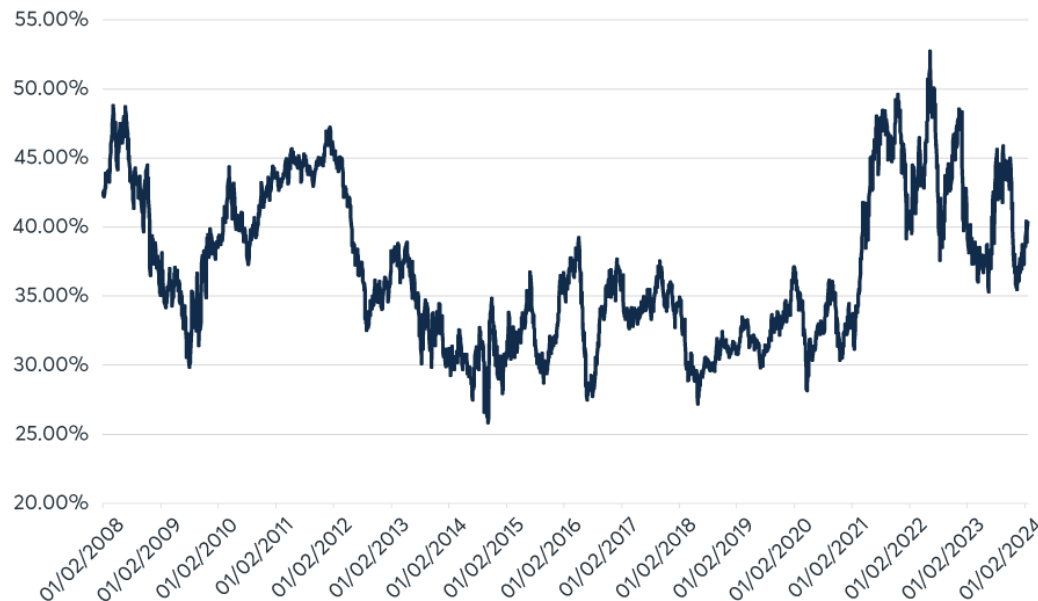
Look out For:

- 1) Average price of new crop
- 2) Carry out stock of Soybean and corn
- 3) China demand of Soybean

Advantage:

- 1) Lower margin requirement
- 2) Lower volatility
- 3) More stable to fundamental factors

# Intra Commodity Spread



Source- CME

## Strategy 4- Trade Oil share

Soybean oil prices can be traded relative to meal and Soybean.

The total margin for crushing one bushel of soybeans is  $(\$48.16 \times 0.11) + (\$355.80 \times 0.022) = \$13.13$ .

Looking at soybean oil prices compared to soybean meal prices, one would say that the oil share of the crush margin at these prices is  $(\$48.16 \times 0.11) / \$13.13 = 40.36$  percent.

That is, soybean oil currently makes up 40.36 percent of the crush margin.

## Strategy 5- Soybean Oil Vs Heating Oil

Both energy and Vegetable oil is getting into feedstock for energy products and gives an opportunity to switch based on price advantage.

BOHO represents the differential between soybean oil and heating oil futures and is used to gauge the practicability of discretionary biodiesel blending. Other spreads such as POGO, BOPO etc.

# Conclusion

There is big advantage of participating in Agriculture market:

- 1) Liquid and vibrant market
- 2) Statistical & fundamental driven
- 3) Lead and lag indicator opportunity
- 4) Spread opportunity- Relative value

Spreads are much safe bets then outright as it reduces supply and demand shocks, utilise much lower margin, back test and derive profit and loss target and better risk managed.



Thank You