

CBOT® Agricultural Markets

An Introduction to Trading
CBOT Agricultural
Futures and Options



 **Chicago Board of Trade**



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Introduction

A world without grains and oilseeds and the commodity markets in which they are efficiently traded would be unthinkable. In whole and processed forms, grains and oilseeds provide nourishing food for our families, feed our livestock and are primary ingredients for an ever-increasing range of non-food products including renewable fuels.

Managing Uncertainty

Many economic factors, including temperature, precipitation, changing customer needs, substitute products and new market participants, are far beyond our control. However, they are key to determining the supply and demand for vital commodities such as corn, wheat, soybeans, soybean meal, soybean oil, rice and oats. As a result of continuously changing global supply and demand for grains and oilseeds, commodity prices can vary substantially from day to day.

So how is it possible for food prices to remain relatively stable and predictable when the prices of commodity ingredients used in food production can be volatile? To a large degree, the financial effects of futures markets are responsible for this price stability. Chicago Board of Trade agricultural futures and options are essential for managing price swings and for providing the global benchmark price for grains and oilseeds.

Benefits of CBOT Agricultural Markets

Chicago Board of Trade futures and options bring important benefits to individuals, companies and our economy as a whole including:

- **Transparency** – global supply and demand for agricultural commodities come together at the Chicago Board of Trade, making possible the discovery of a global benchmark price for all customers to see and use
- **Financial Integrity** – clearing and processing of transactions via the world's premier clearing system provides financial security to our customers
- **Liquidity** – global participation in CBOT markets provide trading efficiencies
- **Dual Trading Platforms** – CBOT supports both an open auction trading platform and a world class electronic trading platform that our global customers can access at a time most convenient for them
- **Extended Trading Hours** – more than 15 hours of trading
- **Two Contract Sizes** – with full- and mini-sized contracts, you can choose the product size that best meets your needs

- **Option Flexibility** – options give you an additional flexible choice to meet your trading and risk management objectives
- **CBOT Brand** – with the strength, integrity and transparency behind the CBOT name, you can be assured that the markets will be continuously monitored to ensure the best service for our customers
- **Exchange Transaction Fees** – enhancing the above benefits are relatively competitive CBOT transaction fees

What are Agricultural Futures Contracts?

A CBOT agricultural futures contract is a legally binding agreement to buy or sell grain or oilseeds at some later time at a price agreed upon today. Futures contracts are standardized with regards to the quantity, quality, time and place of delivery. The only negotiable variable in a specific futures contract is price.

This provides customers with a risk management tool to protect the price of their expected purchase or sale of physical grain or oilseeds. It also allows other types of customers to participate in the agricultural markets without holding a physical market position.

A **long (buy)** position in futures is a market obligation to accept delivery of the physical grain or oilseed and a **short (sell)** position in futures is a market obligation to make delivery of the physical commodity. Although the CBOT agricultural futures contracts are obligations for the physical delivery of the commodity, the great majority of futures contracts (and their implied delivery obligations) are **offset** prior to the delivery period, with the market participant taking a position opposite to their initial position.

What are Options on Agricultural Futures?

A CBOT agricultural option is a legally binding contract that contains a right, but not an obligation to either buy (**call option**) or sell (**put option**) an underlying CBOT agricultural futures contract at a specific price (**strike price**) for a cost (**premium**).

Although option buyers and sellers have a choice of option contracts with different strike prices, the strike price of a specific option is a fixed component of that option.

One of the primary differences between futures and options is that a futures contract is an obligation to either buy or sell the underlying commodity whereas an option provides the right but not the obligation to either buy or sell the underlying commodity futures contract. With a futures contract, both the buyer and seller have market obligations to fulfill. With an option contract, the option buyer receives rights and the option seller has market obligations to fulfill the rights.

Buyers of calls and puts pay a premium at the time of purchase to receive the rights contained in the option.

Sellers of calls and puts receive a premium for the obligation to fulfill the rights.

An option **premium** is the current price, cost or value of the rights contained in a specific option. Premiums are determined by the supply (offers) and demand (bids) for an option on the CBOT open auction and electronic trading platforms. **Call option premiums** have a direct relationship to changes in the underlying futures market price; calls increase in value as the underlying futures price increases and decrease in value as the underlying futures price decreases. **Put option premiums** have an inverse relationship with the underlying futures market price; puts increase in value as the underlying futures price decreases and decrease in value as the underlying futures price increases.

Agricultural option trading months are the same standard months as the underlying agricultural futures months. Additionally, short-term **serial options** are listed for months not included in the standard futures month cycle.

CBOT agricultural options use an **American style exercise** process which means it can be exercised on any business day in the life of the option up to and including the last trading day. American style exercise is the most common type used in the futures industry, providing additional trading flexibility. Only the option buyer has the right to exercise an option. Once an option buyer exercises an option, a randomly selected seller of that specific option will be assigned an underlying futures position opposite to that of the option buyer. If a standard option is **exercised**, the buyer and seller of the option will receive positions in the underlying futures contract month. If a serial

option is exercised, the buyer and seller will receive positions in the next standard futures contract month that follows the serial month. *Note that most agricultural options are offset prior to expiration rather than exercised.*

Agricultural options, like agricultural futures contracts can be used for speculative purposes or as a hedging (price risk management) tool. There are many different option strategies available to meet the varied needs of the speculator and hedger.

What are the Comparative Advantages of CBOT Agricultural Futures and Option Markets versus Other Markets?

Financial leverage, flexibility, integrity, and transparency are important advantages you have when trading agricultural products at the Chicago Board of Trade.

Your ability to trade and manage a product with a high market value at a fraction of the total value is **financial leverage**. Trading of futures contracts is done on a **performance margin** basis, which requires considerably less capital than trading physical commodities.

Since a market price can go up or down, both the buyer and seller of a futures contract must post and maintain a margin account to ensure the performance on a futures contract. A futures trader receives credits or debits on a daily basis in their margin account depending on that day's settlement price (closing price or average of the closing range) relative to the previous day's settlement price. As an example,

if a trader holds a long (buy) futures position, they will receive a credit in their margin account if the settlement price increases from the previous day's settlement price and they will receive a debit if the market price declines. Conversely, if a trader holds a short (sell) futures position, they will receive a credit in their margin account if the market falls and a debit if the market rallies from the previous day's settlement price. This system of adjusting a trader's margin account based on changes from one day's settlement price to the next trading day's settlement price is referred to as "**mark to the market.**"

Since option buyers only have rights and no market obligations, option buyers do not have margin requirements. Instead, when an option is purchased, the option buyer pays the full amount of the premium – their maximum risk exposure. On the other hand, option sellers have to post and maintain a margin account to ensure performance on their market obligation to fulfill the option rights.

Initiating a short position in agricultural futures or options is just as easy as initiating a long position. Therefore, regardless of the physical market position you want to protect or the type of market expectation you have, you will have the **flexibility** to take either side of the market. Additionally, if your market expectations change, you can easily offset your initial position by taking an opposite position in the same contract.

CBOT products are cleared by the world's premier clearing services provider, thereby removing your concern about counter-party risk and ensuring the **financial integrity** of the CBOT markets. The CBOT agricultural markets are regulated and monitored externally by the Commodity Futures Trading Commission (CFTC) and internally by the CBOT Office of Investigations and Audits (OIA), providing the **market integrity** you want and deserve.

By providing a free flow of information and global access to all market participants, the CBOT open auction and electronic trading platforms are recognized as the most **transparent** markets. All market participants deserve the fair and efficient treatment provided by the Chicago Board of Trade.

What are the Functions of the CBOT Agricultural Futures Markets?

The primary economic functions of the CBOT agricultural futures markets are **price discovery** and **price risk management**. Global supply and demand for grains and oilseeds come together at the Chicago Board of Trade in the form of **bids** (expressions to buy) and **offers** (expressions to sell). The result of the interaction between the supply and demand is the discovery of a **benchmark price** that is viewed and used around the world to establish prices for physical commodities in both the spot (current) and forward markets. As a result, there is a strong correlation between the Chicago Board of Trade agricultural futures prices and the prices in the **cash** (physical) commodity markets.



The strong correlation between futures and cash prices is necessary to ensure the effectiveness of price risk management, also referred to as **hedging**. Hedging is the initiation of a temporary futures market position to protect the eventual purchase or selling price of the physical commodity. The primary objective of a hedge is to eliminate adverse price risk, thereby establishing (locking in) a purchase or sale price in advance of the physical market transaction.

A key concept that affects a hedge is **basis**. Basis is the relationship between a specific physical (cash) market price and a futures market price (usually the nearby futures month). Although basis is not a constant factor, it is more predictable and relatively less volatile than either of its components – cash market price and futures market price. The calculation of a basis is relatively easy: cash price minus futures price = basis. After initiating a hedge, the primary market risk that a hedger faces is a change in the basis.

Types of Traders

There are two types of traders in the futures industry – **hedgers and speculators**. The primary distinction between them is that the hedger uses the futures and/or options market to reduce or eliminate price level risk while the speculator uses futures and options to assume market risk for the potential profit opportunity. Another key distinction is that a hedger has an interest (either to purchase or sell) the physical commodity, whereas the speculator does not.

Hedgers

Long hedgers (buyers of physical commodities) are at risk if prices rise between the current time and when they expect to purchase or price the physical commodity. To protect against this adverse price risk, the long hedger initiates a long futures position, which is a temporary substitute for the eventual purchase of the physical commodity.

If the market price increases over time, the higher purchase price of the physical commodity will be offset by a gain in their futures market position. Conversely, if the market price decreases, the loss in their futures market position will be offset by a lower purchase price of the physical commodity. Thus, the long hedger is able to establish a purchase price in advance of taking delivery of the physical commodity regardless of what direction the market moves. The long hedge results will improve if the **basis weakens** (cash price declines relative to the futures price) between the time the hedge is initiated and the time it is offset when the physical commodity is delivered or priced.

Since a basis is the relationship between two correlated prices, it can weaken whether the market price levels are going up or down. The following two examples illustrate the basic mechanics of a long hedge, especially the relationship between the cash and futures markets. For simplicity, these examples keep the basis constant but note that the basis can fluctuate over time and as such, will impact the results of the hedge.

Long Hedge Example 1: Rising Market Conditions

Date	Cash Market	Futures Market	Basis
March 23	\$2.70 Bushel Reference price *	Long (buy) July Corn @ \$2.50/ bu	+\$0.20/ bu
June 23	Buy corn @ \$3.00/bu	Sell (offset) July Corn @ \$2.80/bu	+\$0.20/bu
Results		.30/bu gain	No change

*Reference price is used to calculate the initial basis but is not an actual transaction

The long hedger bought physical corn in June at \$3.00/bu (\$0.30/bu higher than the initial cash market price). However, the hedger's futures position had a \$0.30/bu gain to offset the higher cash market price. The net purchasing price is \$2.70 (\$3.00 cash price - .30 futures gain). Note that the hedge result was the same as the initial cash market price because the basis didn't change.

Long Hedge Example 2: Falling Market Conditions

Date	Cash Market	Futures Market	Basis
March 23	\$2.70 Bushel Reference price*	Long (buy) July Corn @ \$2.50/ bu	+\$0.20/ bu
June 23	Buy corn @ \$2.50/bu	Sell (offset) July Corn @ \$2.30/bu	+\$0.20/bu
Results		.20/bu loss	No change

*Reference price is used to calculate the initial basis but is not an actual transaction

The long hedger bought physical corn in June at \$2.50/bu (\$0.20/bu. lower than the initial cash market price). However, the hedger's futures position had a \$0.20/bu loss, which offset the lower cash market price. The net purchasing price is \$2.70 (\$2.50 cash price + .20 futures loss). Note that the hedge result was the same as the initial cash market price because the basis did not change.

Short hedgers (sellers of physical commodities) are at risk if prices fall between the current time and when they expect to deliver or price the physical commodity. To protect against this adverse price risk, the short hedger initiates a short futures position, which is a temporary substitute for the eventual sale of the physical commodity.

If the market price decreases over time, the lower selling price of the physical commodity will be offset by a gain in their futures market position. Conversely, if the market price increases, a loss in their futures market position will be offset by the higher selling price of the physical commodity. Thus, the short hedger is able to establish a selling price in advance of making delivery of the physical commodity regardless of what direction the market moves. The short hedge results will improve if the **basis strengthens** (cash price increases relative to the futures price) between the time the hedge is initiated and when it is offset when the physical commodity is delivered or priced. Since a basis is the relationship between two correlated prices, it can strengthen when the market price levels are going up or down.

The following two examples illustrate the basic mechanics of a short hedge, especially the relationship between the cash and futures markets. In these examples the basis remains constant but note that basis can fluctuate over time and as such, will impact the results of the short hedge.

Short Hedge Example 1: Falling Market Conditions

Date	Cash Market	Futures Market	Basis
May 15	\$5.60 Bushel Reference price*	Short (sell) November Soybeans @ \$6.00/ bu	-\$0.40/ bu
October 20	Sell soybeans @ \$5.20/bu	Buy (offset) November Soybeans @ \$5.60/bu	-\$0.40/bu
Results		.40/bu gain	No change

*Reference price is used to calculate the initial basis but is not an actual transaction

The short hedger sold physical soybeans in October at \$5.20/bu (\$0.40/bu lower than the initial cash market price). However, the hedger's futures position had a (\$0.40/bu) gain to offset the lower cash market price. The net selling price is \$5.60 (\$5.20 cash price + .40 futures gain). Note that the hedge result was the same as the initial market price because the basis did not change.

Short Hedge Example 2: Rising Market Conditions

Date	Cash Market	Futures Market	Basis
May 15	\$5.60 Bushel Reference price*	Short (sell) November Soybeans @ \$6.00/bu	-\$0.40/ bu
October 20	Sell soybeans @ \$6.00/bu	Buy (offset) November Soybeans @ \$6.40/bu	-\$0.40/bu
Results		.40/bu loss	No change

*Reference price is used to calculate the initial basis but is not an actual transaction

The short hedger sold physical soybeans in October at \$6.00/bu (\$0.40/bu higher than the initial cash market price). However, the hedger's futures position had a (\$0.40/bu) loss, which offset the higher cash market price. The net selling price was \$5.60 (\$6.00 cash price - .40 futures loss). Note that the hedge result was the same as the initial cash market price because the basis did not change.

Examples of Agricultural Hedgers

As noted in the previous hedging examples, hedgers are classified as either long (buying) or short (selling) depending on whether they will be buying or selling the physical commodity at some later date. The following are a few types of individuals and firms that are potential agricultural hedgers.

Soybean crushers use soybean, soybean oil and soybean meal futures to hedge their gross processing margin – the difference between the cost of the soybeans and the eventual revenue from the sale of the soybean products: soybean meal and soybean oil. They purchase soybean futures to be protected against rising input costs and sell soybean oil and soybean meal futures to be protected against falling product prices. The soybean crusher could also use CBOT Soybean Crush Options to protect their processing margin.

Food processors who face rising ingredient costs trade futures or options to manage their upside price exposure. A food company who produces salad dressings would buy futures contracts to establish a price level for ingredient purchases that will occur at a later date. A baker, who continuously buys flour, may buy wheat call options to establish a maximum (ceiling) price for their flour while retaining the opportunity to purchase at a better price if the wheat market declines. In addition to the traditional food manufacturer, **restaurants, pet food manufacturers and importers** could also take advantage of the CBOT agricultural markets for managing their upside price risk.

Grain and oilseed producers plant their seeds in early spring and wait until the fall of the year to harvest their crops. In addition to the variables that could affect their production risk over this period of time, they may also face tremendous market risk in the form of potentially lower prices. To protect against the risk of falling market prices, a farmer could put on a short hedge by selling futures in the spring as a temporary substitute for the eventual sale of the physical commodity in the cash market during harvest, thus locking-in (establishing) a sale price months in advance of the physical delivery. Farmers could also buy put options to lock-in a minimum (floor) selling price while retaining the opportunity to sell their crops at a better price should the market rally. **Livestock producers**, like grain producers, could be both short (selling) hedgers for their livestock and long (buying) hedgers for their feed needs.

Grain elevators and merchandisers are in the business of being middle men – buying and selling grain and oilseeds. Although their



exposure is different than an outright buyer or seller of commodities, they still have risk exposure related to their margins – the difference between their purchase and sale prices. They can use futures and options in a variety of ways to protect their profit margins or to offer cash market contracts to their customers that are based off the CBOT futures and options contracts. **Exporters** could also use the markets in a similar fashion to the grain elevator or merchandiser.

Speculators

In addition to the hedger, the other general type of trader in the futures industry is the **speculator**. Speculators use a variety of trading techniques and strategies with the objective of making profits from expected movements in price levels or price relationships (spreads). Therefore, the speculators' role in the futures market is to assume market risk in return for potential profits. By taking positions in the futures and options market, the speculator is assuming market risk and providing valuable **liquidity**, which is a measure of a market's efficiency. Liquidity is the ease and efficiency at which a market participant can enter and exit a market position.

If a speculator expects the market to rally at some later time, they would initially go **long (buy)** futures and then offset (sell back) their futures position at a later date. If the market

did rally, as they expected, they would realize a gain. For example, if you go long a wheat futures contract at \$3.20/bu and later sell (offset) the same wheat futures contract at \$3.50/bu, you would realize a \$0.30/bu gain (\$1,500 on a 5,000 bu contract).

If a speculator expects the market to decline, they would **short (sell)** a futures contract initially and then if they offset (buy back) the contract at a later time when the market did decline, they would realize a market gain. For example, a speculator who sells oat futures at \$2.00/bu and later offsets (buys back) the same oat contract at \$1.85/bu, will realize a \$0.15/bu gain (\$750 on a 5,000 bu contract).

Note that if the market moves against the speculator's initial expectations, they will be exposed to a market loss.

So in summary, a speculator would achieve a gain in the futures market by buying low and selling high or by selling high and buying low. If they buy high and sell low or sell low and buy high, they will realize a market loss.

Types of Speculators

Speculators can be either an individual or a firm and can be classified in many ways, for instance, by the amount of time that a position is held. A **scalper** will be in and out of a market position within seconds or minutes. **Day traders**, will hold a position throughout a trading day but prefer to end the session with a net even position. Other types of speculators known as **position traders** will hold a position

for days, weeks or even months based on their long-term expectations. Some speculators will put on **outright positions** – long if they believe price levels will rise or short if they believe price levels will decline. Other speculators, known as **spreaders**, will initiate positions based on their expectations on changes in the spreads (price relationships) between two or more contracts.

Some speculators base their trading decisions on either **fundamental or technical market analysis**. A fundamental trader follows factors that affect the supply and demand for a commodity while a technical trader will follow charts and graphs of historical data. Some speculators will use a combination of the two types of market analysis to make their trading decisions.

You can speculate by trading in your own account or by investing in a commodity related fund where the trading decisions are made by a Commodity Trading Advisor (CTA). Just as speculators in any market would do, make sure you are fully aware of the profit potential and market risks associated with the multitude of speculative positions. You may want to check with a commodity broker who can help you determine a strategy and the CBOT agricultural contract(s) that meets your risk-reward profile.

Chapter Three

The CBOT Agricultural Products

The Chicago Board of Trade offers futures and options contracts on a variety of agricultural commodities to meet the needs of both the hedge and speculative customers. This section covers some of the many uses of the physical commodities and highlights specific salient features of the related futures and option contracts.

CORN

The greatest use for corn is feed for livestock including cattle, hogs and poultry. Corn and corn by-products are processed into many everyday food items such as corn oil used in margarine, cornstarch used in gravy and corn sweeteners used in soft drinks. Non-food uses include alcohol for ethanol, absorbing agents for disposable diapers and adhesives for paper products.

The **CBOT Corn futures** contract is a physical delivery 5,000 bushel contract (about 127 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$12.50 per contract. Although a Corn futures contract

price cannot trade in a smaller increment, the Corn futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-quarter of a cent increment. Additionally, a **CBOT mini-sized Corn** futures contract of 1,000 bushels (about 25 metric tons) is available for trading.

The **CBOT Corn option** is a 5,000 bushel contract with a corn futures contract as the underlying product. The **strike prices** are in 5-cent intervals for the first two months and 10-cent intervals for all other months. The **pricing unit** (premium) is cents per bushel with a **tick size** (minimum premium fluctuation) of \$0.00125 (one-eighth of a cent) per bushel or \$6.25 per contract. Although a Corn option contract premium cannot trade in a smaller increment, the Corn option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-eighth of a cent increment.

SOYBEANS

Soybeans are one of the most popular oilseed products in the world with a seemingly limitless range of uses from food to feed to industrial products. For example, whole soybean products are especially appreciated in Asia and among global natural-food devotees. Soybeans provide the basis for low fat sources of protein such as

tofu, miso and soymilk. Many publications are printed with soy ink, which has become an increasingly popular alternative to petrochemical-based inks. Soybeans and the soybean by-products (soybean meal and soybean oil) have a special economic relationship from production to processing to marketing and consumption.

The **CBOT Soybean futures** contract is a physical delivery 5,000 bushel contract (about 136 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$12.50 per contract. Although a Soybean futures contract price cannot trade in a smaller increment, the Soybean futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-quarter of a cent increment. Additionally, a **CBOT mini-sized Soybean** futures contract of 1,000 bushels (about 27 metric tons) is available for trading.

The **CBOT Soybean option** is a 5,000 bushel contract with a soybean futures contract as the underlying product. The **strike prices** are in 10-cent intervals for the first two months and 20-cent intervals for all other months.

The **pricing unit** (premium) is cents per bushel with a **tick size** (minimum premium fluctuation) of \$0.00125 (one-eighth of a cent) per bushel or \$6.25 per contract. Although a Soybean option contract premium cannot trade in a smaller increment, the Soybean option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-eighth of a cent increment.

The **CBOT South American Soybean futures** contract gives customers a flexible choice while strengthening the CBOT's role as the global soybean benchmark. It is one of the new contracts added to the Chicago Board of Trade Soybean complex. As an increasing amount of soybean production and consumption is based on South American produced soybeans, this contract offers a highly correlated price risk management tool and a transparent pricing reference based on the South American soybean crop.

The South American Soybean futures contract is a 5,000 bushel physical delivery contract (about 136 metric tons) with delivery points located in Brazil. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$12.50 per contract. Although a South American Soybean futures contract price cannot trade in a smaller increment, the South American Soybean futures price may change by several ticks at

a time depending on market conditions, but always in multiples of the one-quarter of a cent increment.

SOYBEAN MEAL

Soybean meal is the dominant protein supplement used in livestock and poultry feeds. Soy products are also used to make baby food, diet-food products, beer and noodles. Technical uses include adhesives, cleansing materials, polyesters and other textiles.

The **CBOT Soybean Meal futures** contract is a physical delivery 100 short ton contract (about 91 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is dollars and cents per short ton with a **tick size** (minimum price fluctuation) of \$0.10 (ten cents) per short ton or \$10 per contract. Although a Soybean Meal futures contract price cannot trade in a smaller increment, depending on market conditions, the Soybean Meal futures price may change by several ticks at a time, but always in multiples of the ten-cent increment.

The **CBOT Soybean Meal option** is a 100 short ton contract with a futures contract as the underlying product. The **strike prices** are in \$5 intervals when the strike price is less than \$200 and are in \$10 intervals when the strike price is \$200 or over. The **pricing unit** (premium) is dollars and cents per short ton with a **tick size**

(minimum premium fluctuation) of \$0.05 (five cents) per bushel or \$5 per contract. Although a Soybean Meal option contract premium cannot trade in a smaller increment, the Soybean Meal option premium may change by several ticks at a time depending on market conditions, but always in multiples of the five-cent increment.

SOYBEAN OIL

Soybean oil remains the most widely used edible oil in the United States, with consumption exceeding that of all other fats and oils combined. It is a major ingredient used in kitchens including cooking oil, margarine, mayonnaise, salad dressing and shortening. With bio-diesel fuel becoming an important new source of energy, soybean oil is the primary component. Some farm machinery run on a mixture of diesel fuel and bio-diesel.

The **CBOT Soybean Oil futures** contract is a physical delivery 60,000 pound contract (about 27 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is cents per pound with a **tick size** (minimum price fluctuation) of \$0.0001 (1 one-hundredth of a cent) per short ton or \$6 per contract. Although a Soybean Oil futures contract price cannot trade in a smaller increment, the Soybean Oil futures price may change by several ticks at a time depending on market conditions, but always in multiples of the 1 one-hundredth of a cent increment.

The **CBOT Soybean Oil option** is a 60,000 pound contract with a futures contract as the underlying product. The **strike prices** are in 1/2-cent intervals when the strike price is less than 30 cents and 1-cent intervals when the strike price is 30 cents or greater. The **pricing unit** (premium) is dollars and cents per short ton with a **tick size** (minimum premium fluctuation) of \$0.00005 (5 one-thousandths of a cent) per pound or \$3 per contract. Although a Soybean Oil option contract premium cannot trade in a smaller increment, the Soybean Oil option premium may change by several ticks at a time depending on market conditions, but always in multiples of the 5 one-thousandths of a cent increment.

SOYBEAN CRUSH

Soybean “Crush” has several meanings. It refers to the physical process of converting soybeans to soybean by-products (soybean meal and soybean oil), it is a value calculation used in both the cash and futures markets for soybeans and soybean by-products and it is also a trading strategy.

The crush involves the purchase of soybeans and the sale of soybean meal and soybean oil. The reverse crush involves the sale of soybeans and the purchase of soybean meal and soybean oil. The crush spread is a monetary value quoted as the difference between the combined prices of the soybean by-products and the price of the soybeans. This value calculation is referred to as the Gross Processing Margin (GPM) when using cash market prices and is referred to as the Board

Crush when using futures market prices. As a strategy, soybean processors will use the board crush to manage the price risk associated with buying soybeans and selling the soybean by-products. There are also speculative opportunities as the crush spread relationship may vary over time.

The **CBOT Soybean Crush Spread option** is a 50,000 bushel contract (about 1,361 metric tons) with the underlying products being CBOT Soybean, Soybean Meal and Soybean Oil futures contracts. The **strike prices** are in 2-cent intervals. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.00125 (one-eighth of a cent) per bushel or \$62.50 per contract. Although a CBOT Soybean Crush Spread option contract premium cannot trade in a smaller increment, the Soybean Crush Spread option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-eighth of a cent increment.

WHEAT

The primary use for wheat is flour, the key ingredient for breads, pastas, crackers and many other food products. Wheat by-products are used in livestock feeds. Wheat is also used in industrial products such as starches, adhesives and coatings.

The **CBOT Wheat futures** contract is a physical delivery 5,000 bushel contract (about 136 metric tons). Note that although most CBOT agricultural contracts require physical



delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$12.50 per contract. Although a Wheat futures contract price cannot trade in a smaller increment, the Wheat futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-quarter of a cent increment. Additionally, a **CBOT mini-sized Wheat futures** contract of 1,000 bushels (about 27 metric tons) is available for trading.

The **CBOT Wheat option** is a 5,000 bushel contract with a futures contract as the underlying product. The **strike prices** are in 5-cent intervals for the first two months and 10-cent intervals for all other months. The **pricing unit** (premium) is cents per bushel with a **tick size** (minimum premium fluctuation) of \$0.00125 (one-eighth of a cent) per bushel or \$6.25 per contract. Although a Wheat option contract premium cannot trade in a smaller increment, the Wheat option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-eighth of a cent increment.

OATS

One of the primary uses for oats is for animal feed. Oats are also the main ingredient in many hearty breakfast foods. Additionally, oats are used in the manufacture of plastics, solvents and other industrial products.

The **CBOT Oat futures** contract is a physical delivery 5,000 bushel contract (about 86 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is dollars and cents per bushel with a **tick size** (minimum price fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$12.50 per contract. Although an Oat futures contract price cannot trade in a smaller increment, the Oat futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-quarter of a cent increment.

The **CBOT Oat option** is a 5,000 bushel contract with a futures contract as the underlying product. The **strike prices** are in 5-cent intervals for the first two months and 10-cent intervals for all other months. The **pricing unit** (premium) is cents per bushel with a **tick size** (minimum premium fluctuation) of \$0.00125 (one-eighth of a cent) per bushel or \$6.25 per contract. Although an Oat option contract premium cannot trade in a smaller increment, the Oat option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-eighth of a cent increment.

ROUGH RICE

Rice is the primary food staple for many of the world's population. It is also an important ingredient in processed foods such as breakfast cereals and snacks. Rice by-products are used for brewing and distilling, fuel, fertilizers, packing material and industrial grinding.

The **CBOT Rough Rice futures** contract is a physical delivery 2,000 hundred weight (cwt.) contract (about 91 metric tons). Note that although most CBOT agricultural contracts require physical delivery, the majority of the futures positions along with their respective delivery obligations are offset prior to the delivery period. The **pricing unit** is cents per cwt. with a **tick size** (minimum price fluctuation) of \$0.005 (one-half of a cent) per bushel or \$10.00 per contract. Although a Rough Rice futures contract price cannot trade in a smaller increment, the Rough Rice futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-half of a cent increment.

The **CBOT Rough Rice option** is a 2,000 hundred weight (cwt.) contract with a futures contract as the underlying product. The **strike prices** are in 20-cent intervals. The **pricing unit** (premium) is cents per cwt. with a **tick size** (minimum premium fluctuation) of \$0.0025 (one-quarter of a cent) per bushel or \$5.00 per contract. Although a Rough Rice option contract premium cannot trade in a smaller increment, the Rough Rice option premium may change by several ticks at a time depending on market conditions, but always in multiples of the one-quarter of a cent increment.

ETHANOL

The U.S. ethanol industry is experiencing a tremendous growth trend which is expected to continue for years to come. The factors contributing to this trend include high prices for crude oil and gasoline, Federal mandates for the increased use of ethanol over the next several years bans, increased concern about dependence on imported crude oil and relatively low grain prices. A by-product of ethanol production is distillers dried grains (DDG), which are used in feed applications.

The **CBOT Ethanol futures** contract is a physical delivery 29,000 gallon (gal.) contract (approximately 1 rail car) that is a physical delivery contract. The **pricing unit** is dollars and cents per gallon with a **tick size** (minimum price fluctuation) of \$0.001 (one-tenth of a cent) per gallon or \$29.00 per contract. Although an Ethanol futures contract price cannot trade in a smaller increment, the Ethanol futures price may change by several ticks at a time depending on market conditions, but always in multiples of the one-tenth of a cent increment.

CBOT TICKER SYMBOLS

COMMODITY CONTRACT	OPEN AUCTION	ecbot®
Corn futures	C	ZC
Corn call options	CY	OZCC
Corn put options	PY	OZCP
Wheat futures	W	ZW
Wheat call options	WY	OZWC
Wheat put options	WZ	OZWP
Soybean futures	S	ZS
Soybean call options	CZ	OZSC
Soybean put options	PZ	OZSP
Soybean Meal futures	SM	ZM
Soybean Meal call options	MY	OZMC
Soybean Meal put options	MZ	OZMP
Soybean Oil futures	BO	ZL
Soybean Oil call options	OY	OZLC
Soybean Oil put options	OZ	OZLP
Soybean Crush Spread call options	BC	n/a
Soybean Crush Spread put options	BP	n/a
South American Soybean futures	BS	ZK
Oat futures	O	ZO
Oat call options	OO	OZOC
Oat put options	OV	OZOP
Rough Rice futures	RR	ZR
Rough Rice call options	RRC	OZRC
Rough Rice put options	RRP	OZRP
Ethanol futures	AC	ZE
CBOT mini-sized Corn futures	YC	n/a
CBOT mini-sized Wheat futures	YW	n/a
CBOT mini-sized Soybeans futures	YK	n/a

Trading Platforms

The Chicago Board of Trade supports two trading platforms for the agricultural futures and options contracts – open auction and electronic. Visit www.cbot.com for specific agricultural futures and options trading hours.

The **open auction** platform continues to be updated with the latest technology to improve the overall speed and efficiency in trade execution, processing, clearing and reporting. The **CBOT electronic trading platform – e-cbot®**, powered by LIFFE CONNECT® provides additional trading hours, advanced trading functionality, global distribution and open access to support your trading needs and minimize your trading risks. Through the CBOT's commitment to provide the best trading platforms available, customers around the world can choose the platform they prefer and participate in the Chicago Board of Trade agricultural futures and options markets, regardless of the time zone they are in.

Getting Started

New market participants frequently ask how to get started in trading futures and options. The first step is to learn as much as possible about the futures industry before you begin trading, possibly even doing some paper trading on your own. After you are comfortable with the market and feel that you are ready to begin trading you will need to establish a relationship with a commodity broker, who can provide you with information, recommendations and trade execution on your behalf.

Sources of Information

There are many publications and periodicals on agricultural futures and options available in bookstores, libraries and online. The Chicago Board of Trade has an excellent website (www.cbot.com) which is easy to navigate and contains market news, Exchange information, a sample list of commodity brokers and educational resources, such as literature and online learning tools. Additionally, if you would like to discuss the Chicago Board of Trade agricultural futures and options markets with a CBOT product manager, please call 312-341-7955.



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