CME Group

Corn and Soybean Delivery Terms

Delivery Terms Summary for Corn and Soybean Contracts

Overview

The Chicago Board of Trade began listing Corn and Soybean futures contracts expiring in the year 2000 with delivery terms on the Illinois River.

Under these terms, delivery on CBOT® Corn futures contracts takes place along a 204-mile section of the Illinois River from terminals in Chicago, IL, and Bums Harbor, IN, south to Pekin, IL. For CBOT soybean futures contracts, the delivery area is a 403-mile section of the Illinois and Mississippi rivers from terminals in Chicago, IL, and Burns Harbor, IN, to St. Louis, MO. Included in the contract terms are location price differentials, barge load-out requirements, and contingency load-out plans.

These delivery points facilitate the real goals of a delivery system: convergence between futures prices and cash prices representing a significant portion of the underlying cash market, with a contiguous, centralized, and transparent pricing system. Within the futures industry, convergence is defined as cash and futures prices coming together at the expiration of the futures contract at the futures delivery point.

Background

An effective delivery system for the Chicago Board of Trade's Corn and Soybean futures contracts is a critical issue for market users throughout the United States and the world. These contracts are universally recognized for providing an accurate price benchmark and effective risk management tools for a broad spectrum of users. Implementing a contiguous delivery system that is centrally located in the major corn and soybean production and consumption areas enables these futures contracts to more accurately reflect the U.S. cash market for those products.

Fair and Efficient Structure

The CBOT's Corn and Soybean delivery system simplifies and increases the efficiency of grain delivery procedures, while responding to changes in the underlying cash markets. Following are key elements of the delivery mechanism.

Delivery systems in the futures markets exist to ensure convergence of cash and futures prices during the delivery month-not to be a commercial source of supply of the underlying commodity. The latter is the purpose of cash markets.

Facilities included in the Illinois Waterway Delivery System for corn provide a maximum delivery capacity of more than 152 million bushels and for soybeans a maximum delivery capacity of 218 million bushels. Also, the shipping certificate system used enables the delivery capacity to be continuously replenished from the natural flow of grain, minimizing potential market manipulation concerns and reducing the possibility of quality deterioration.

Frequently Asked Questions

Following are the most frequently asked questions about the CBOT delivery system.

Question: Does the Illinois Waterway Delivery System alter the hedging effectiveness of the contracts?

Answer: Domestic users in the United States experience strong hedging effectiveness.

In the early days of the Chicago Board of Trade, Chicago warehouses represented a highly significant portion of the annual trade. As expected, Chicago became the basing point for determining the value of a bushel of grain, because Chicago was the largest demand center for grain located adjacent to the production area. In today's trade, and for the foreseeable future, Chicago warehouses are playing a lesser role in the annual trade.

This is due to the evolution of the grain trade, with significant demand centers now located all over the world. The string of shipping points along the Illinois Waterway Delivery System represents a significant portion of the cash grain trade. The delivery system is nestled in the heart of the production area, yet it still encompasses Chicago. This region boasts some of the greatest logistical flexibility on the continent.

Ownership of those shipping points is evenly dispersed among viable entities actively engaged in the domestic and export grain trade. In short, Illinois Waterway Delivery System shipping points reflect an efficient and active market in which market participants can expect transparency, liquidity, and a backbone to price discovery.

Question: Why does the Illinois Waterway Delivery System use shipping certificates instead of warehouse receipts?

Answer: Because facilities along the Illinois River are primarily throughput, handling large quantities of grain with minimal storage capacity, shipping certificates better represent the cash market in the delivery territory than warehouse receipts. Shipping certificates are commonly used in instances where commodities are not held in storage for long time periods, while warehouse receipts are used as title to stored commodities.

Question: Do shipping certificates pose a greater risk of financial default for takers of delivery compared to warehouse receipts?

Answer: The risk of financial default with shipping certificates decreases compared to a warehouse receipt system. Because CBOT shipping certificates are not secured by grain in storage as are warehouse receipts, most issuers of shipping certificates post a letter of credit equal to 110 percent of the market value of outstanding shipping certificates.

Also, the system limits the quantity of shipping certificates outstanding to no more than 25 percent of the shipping firm's net worth. Also required is $2 million in working capital. These requirements decrease the risk of financial default compared to warehouse receipt delivery systems, since those warehouses are only required to obtain performance bonds equal to a small percentage of the value of the grain represented by the receipts.

Question: Do these delivery terms make the corn and soybean contracts "export only" contracts?

Answer: No. The contracts are effective hedging and price discovery mechanisms for both the domestic and export markets. Since the grain that is tributary to the Illinois River competes in an active domestic cash market, the delivery mechanism reflects supply and demand forces for both the domestic and export markets. Furthermore, shipping certificates provide flexibility by allowing deliveries to occur prior to the grain being physically moved into a shipping station. As a result, the delivery mechanism facilitates arbitrage between the futures and cash markets while allowing the grain behind the shipping certificates to retain the flexibility of moving into either the domestic or export markets.

Question: Do problems related to flooding, freezing, or mechanical failure adversely affect the transportation of grain on the northern Illinois River?

Answer: According to the U.S. Coast Guard (USCG), which has jurisdiction over safety and navigation issues on the inland river system, the Illinois River never officially closes. In contrast, the Great Lakes are officially closed approximately four months each year. Barge traffic on the Illinois River is rarely suspended, and when it is, those suspensions are typically for less than two weeks.

The U.S. Army Corps of Engineers-which is responsible for the maintenance, rehabilitation, and operation of locks and dams on the Illinois River-reports the average closure time for all locks on the Illinois River is typically less than 12 hours. While no transportation system is free of occasional stoppages due to the weather, mechanical breakdowns, or labor strikes, the Illinois River has proven to be a reliable mode of transportation, shipping more than 10.000 barge loads of grain downriver annually.

Question: What happens if there is an obstruction along the delivery area and river traffic is suspended?

Answer: If there is an announcement that river traffic will be suspended for 15 days or more because of an obstruction and the obstruction affects a majority of regular shipping stations, then shipping stations upriver from the obstruction must provide loaded barges to the taker of delivery below the obstruction with insurance and freight paid to New Orleans, LA. As reimbursement for the cost of barge freight, the taker of delivery reimburses the maker of delivery.

Question: Does the potential for transportation problems on the Illinois River adversely affect spread trading in the Corn and Soybean futures contracts?

Answer: No. The short periods of time when locks on the Illinois River are closed have a much smaller effect on futures spread trading than the old Great Lakes based system, which is completely closed during the winter. Moreover, the delivery system replicates the natural flow of grain. So, futures contracts better reflect changes in supply and demand as do futures spreads.

Question: Why are there additional shipping stations listed for the soybean futures contract?

Answer: The additional shipping stations reflect the lower quantity of soybeans shipped compared to corn from the northern section of the Illinois Waterway when the River delivery system was adopted. The Corn delivery system is being expanded to match the Soybean warehouses beginning with the March 2019 contract expiration.

Question: Why not a cash settlement delivery mechanism?

Answer: Since commodity cash markets are less liquid and more decentralized than financial cash markets, it is necessary to collect cash prices over several days from a wide geographical area to derive a cash settlement price that cannot be manipulated or subject to distortion. The cash settlement price calculated from this procedure would no longer reflect the underlying cash market at any particular point but rather an average price over time at numerous locations. Convergence, arbitrage, and hedging effectiveness would be diminished for all participants in the market by using cash settlement in this type of situation.

How the Delivery System Works

Calculating the delivery value of corn and soybeans is a critical step in determining whether to become involved in the futures delivery process. And, even though a very small amount (about 1 percent) of all grain futures positions end in physical delivery, the following calculations allow market participants to compare cash and futures prices.

Under the Illinois Waterway Delivery System, the location differential and load-out charge are added to the futures market price. The market participant then compares this price to the cash price at the delivery point (shipping station). The cash price is probably most easily calculated by subtracting the barge freight from the New Orleans, LA, (NOLA) cash price. This process allows market participants to compare cash and futures prices to make delivery decisions.

Example: On August 10, CBOT August Soybean futures closed at $5.50 1/4 bushel. As a futures market participant, you want to compare the $5.50 1/4 bushel price with the cash price of c.i.f. New Orleans (NOLA) soybeans, which is $5.82 1/2/bushel.

Localizing the August futures price to a delivery location:

August Soybean futures price	$5.50 1/4/bu
+ location differential	+$.03/bu (Peioia location differential)
+FOB charge specified in futures contract	+$.06 /bu
FOB shipping station	**$5.59 1/4/bu FOB Peoria shipping station**

Backing off the New Orleans cash price to FOB Peoria shipping station value:

NOLA cash price	$5.82 1/2/bu
– barge freight from shipping station to NOLA for Peoria, IL	–$.26/bu (180% of benchmark tariff x 481¢/ton x .03 conversion factor*)
FOB shipping station	**$5.56 1/2/bu FOB Peoria shipping station**

* To convert the barge freight cost of soybeans from ¢/ton, a standard conversion factor of .03 is used . In the case of corn, the conversion factor is .028.

Delivery Process in Brief

If a firm decides to make or take delivery against a futures position, the following procedure takes place to exchange a futures position for a shipping certificate. The delivery process extends over three business days. This cycle is repeated for each delivery day in the delivery month until the last delivery day.

Day 1 (Intention Day/Position Day)

The holder of a short futures position (the short) initiates delivery by notifying CME Clearing that he or she wants to make delivery. Holders of long futures positions (the longs) are ranked according to the amount of time they have held the long futures position (oldest is ranked first).

Day 2 (Notice Day)

The oldest long position holder is notified by 7 a.m. by CME Clearing that delivery will take place; the short invoices the long by 4 p.m.

Day 3 (Delivery Day)

The short delivers the shipping certificate to the long; the long makes payment by 1 p.m. (or 9:30 a.m. the next banking day if it is a bank holiday). The first delivery day is the first business day of the delivery month.

Shipping certificates are created by shippers approved by the Exchange. If a firm acquires a shipping certificate through the futures delivery process (i.e., takes delivery of a shipping certificate), the firm can:

(1) Hold onto the certificate. In this situation, the owner pays the premium charge to the issuer of the certificate. For corn and soybean contracts the rates are $.00165/bu/day.

(2) Sell the shipping certificate to someone else at a negotiated price.

(3) Redeliver the shipping certificate by selling a futures contract and initiating delivery of the shipping certificate to a new owner.

(4) Request load-out.

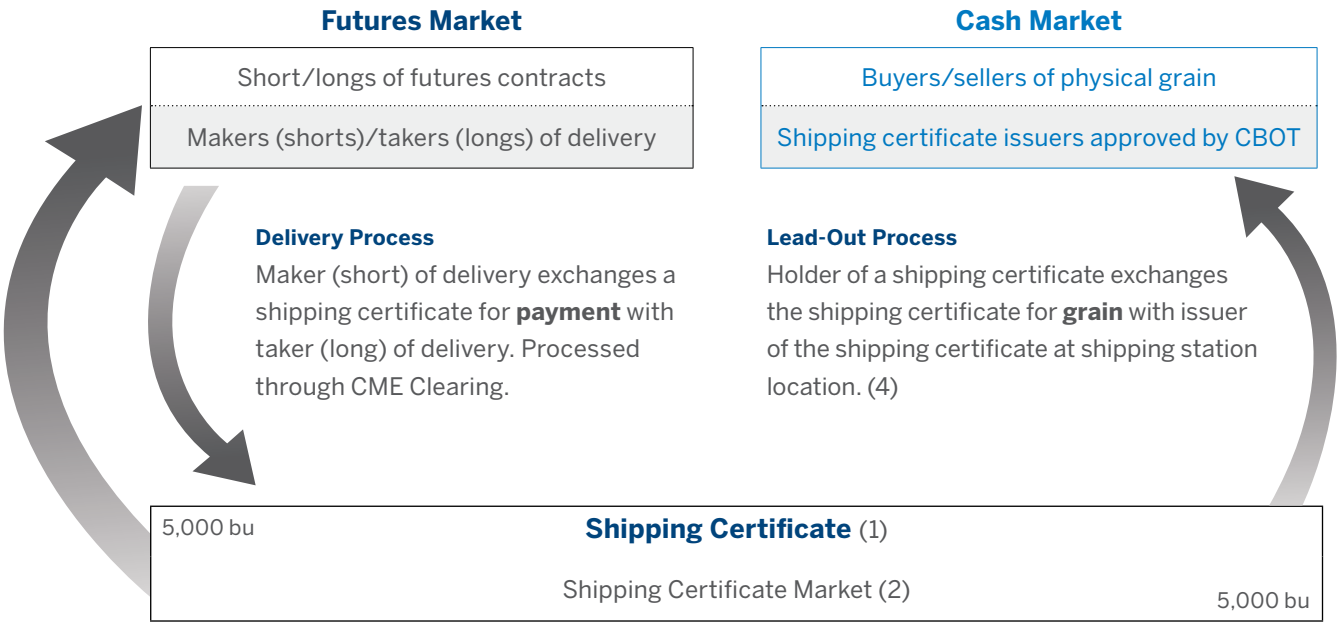
Deliver Month Trading Schedule for Corn and Soybeans

MARCH 2000						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	First Position Day	First Notice Day	1 First Delivery Day	2	3	4
5	6	7	8	9	10	11
	Load-out begins three business days after the Deliver Day					
12	13	14 Last Trading Day	15 Last Notice Day	16 Last Delivery Day	17	18
19	20	21	22	23	24	25
		Load-out continues for a maximum of 30 days				
26	27	28	29	30	31	

Requesting Load – Out

If a shipping certificate owner requests load-out, he or she surrenders the certificate to the Exchange and provides the issuer with shipping instructions. Load-out then commences per the CBOT Loading and Shipping Regulations. Final settlement charges are based on official weights and grades.

Futures Market – Cash Market Linkage



Salient Features of the Illinois Waterway Delivery System

Quality Differentials

#2 yellow corn at par

#1 yellow corn par+ 1 1/2¢/bu

#3 yellow corn par -1 1/2¢/bu

#2 yellow soybeans at par

#1 yellow soybeans par +6¢/bu

#3 yellow soybeans with 3% foreign matter par -6¢/bu

Delivery Points

Illinois Waterway from Chicago, IL, (including Bums Harbor, IN) to Pekin, IL, at Illinois River mile marker 151 for corn and soybeans. and to St. Louis, MO, at Upper Mississippi River mile marker 170 for soybeans only.

Delivery Instrument

Shipping certificate only.

Maximum Certificates Allowed to Issue *

Lesser of (1) registered daily rate of loading for the shipping station times 30 or (2) 25 percent of the net worth.

Premium to Futures for FOB Water or Rail Conveyance is 6¢/bu;

Premium Charge (previously referred to as storage charge): $.00165/bu/day.

Barge Load-Out Rate: At the registered daily rate of loading for the shipping station within three business days following receipt of loading orders or within one business day of constructive placement, whichever occurs later.

Vessel Load-Out Rate: 300,000 bu/day with three days pre-advice in Chicago, IL, and Bums Harbor, IN.

Rail Load-Out Rate: Takers of delivery in Chicago, IL, and Burns Harbor, IN, will have the option to receive rail load-out at the rate of 25 cars per day (35 cars per day for batch weights and grades).

Last Trading Day: The business day prior to the 15th calendar day of the contract month.

Last Delivery Day: The 2nd business day following the last trading day.

Regularity Eligibility: Minimum $2 million working capital and $5 million net worth

Location Differentials

Delivery Premiums at River Shipping Stations

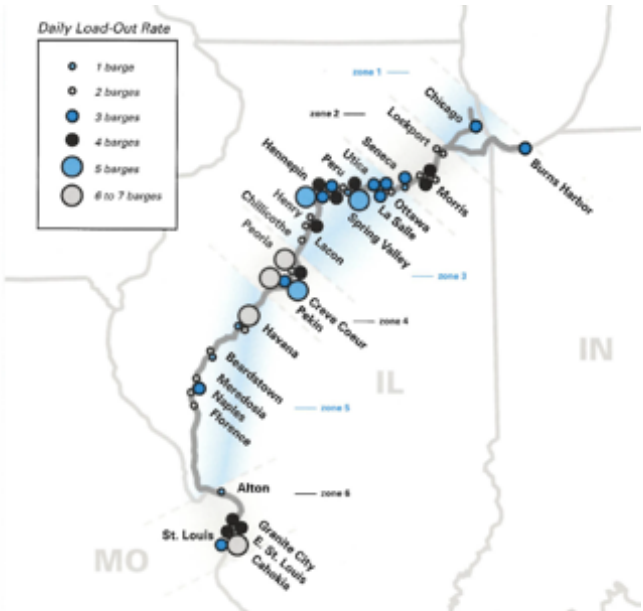
Corn & Soybeans

Chicago, IL – Burns Harbor, IN (to mile marker ILR 304)
Lockport, IL – Seneca, IL (to mile marker ILR 245)
Ottawa, IL – Chillicothe, IL (to mile marker ILR 170)
Peoria, IL – Pekin, IL (to mile marker ILR 151)

Soybeans Only:

Havana, IL – Hardin, IL (to mile marker ILR 0)
Alton, IL – St. Louis, MO (to mile marker UMR 170)

Corn and Soybean delivery zones



CME GROUP HEADQUARTERS

20 South Wacker Drive
Chicago, Illinois 60606
cmegroup.com

CME GROUP GLOBAL OFFICES

Chicago
+1 312 930 1000

New York
+1 212 299 2000

London
+44 20 3379 3700

Singapore
+65 6593 5555

Calgary
+1 403 444 6876

Hong Kong
+852 2582 2200

Houston
+1 713 658 2347

São Paulo
+55 11 2787 6451

Seoul
+82 2 6336 6722

Tokyo
+81 3 3242 6228

Washington D.C.
+1 202 638 3838

PM2249/1017