

BOARD OF TRADE OF THE CITY OF CHICAGO INC.
ANALYSIS OF DELIVERABLE SUPPLY
KC HRW WHEAT FUTURES
AUGUST 2018

In estimating deliverable supply for the KC HRW Wheat Futures, the Board of Trade of the City of Chicago Inc. ("CBOT" or "Exchange") relied on long-standing precedent, which provides that the key component in estimating deliverable supply is the portion of typical supply stocks that could reasonably be considered to be readily available for delivery. In its guidance on estimating deliverable supply, the Commodity Futures Trading Commission ("CFTC" or "Commission") states:

In general, the term "deliverable supply" means the quantity of the commodity meeting a derivative contract's delivery specifications that can reasonably be expected to be readily available to short traders and saleable by long traders at its market value in normal cash marketing channels at the derivative contract's delivery points during the specified delivery period, barring abnormal movement in interstate commerce. Typically, deliverable supply reflects the quantity of the commodity that potentially could be made available for sale on a spot basis at current prices at the contract's delivery points. For a non-financial physical-delivery commodity contract, this estimate might represent product which is in storage at the delivery point(s) specified in the futures contract or can be moved economically into or through such points consistent with the delivery procedures set forth in the contract and which is available for sale on a spot basis within the marketing channels that normally are tributary to the delivery point(s).¹

Background:

All wheat produced in the U.S. in 2017/18 amounted to 1.741 billion bushels, with hard red winter (HRW) wheat, the deliverable class on KC HRW Wheat futures, representing 750 million bushels or just over 43 percent of total U.S. wheat production. HRW is high-protein wheat that is primarily milled into flour used in bread production. The USDA projected 2018/19 U.S. HRW wheat crop of 661 million bushels, a decrease of about 12 percent below 2017/18 numbers. Despite the drop in 2018/19 production due to drought, the quality as measured by protein content is greatly increased.

KC HRW Wheat Futures Delivery Capacity (Updated Annually):

KC Wheat shipping certificates may be issued from any one of the currently regular for delivery elevators or warehouses located in the following switching limits:

- 1.) Kansas City, Missouri/Kansas,
- 2.) Hutchinson, Kansas,
- 3.) Salina/Abilene, Kansas, or
- 4.) Wichita, Kansas.

¹ http://www.ecfr.gov/cgi-bin/text-idx?SID=74959c3dbae469e2efe0a42b45b8dfae&mc=true&node=ap17.1.38_11201.c&rgn=div9

Below are the facilities regular for delivery on KC HRW Wheat futures as of August 2018 along with their storage capacity in bushels and maximum number of shipping certificates they may issue, with each shipping certificate equivalent to 5,000 bushels:

Firm	Location	Maximum Certificates
ADM Grain Company	Wolcott	505
Bartlett Grain Company	KCT #1	861
Bartlett Grain Company	River Rail	2,007
Bartlett Grain Company	Fairfax	2,007
Cargill, Inc.	Katy	866
TOTAL KANSAS CITY		6,246
ADM Grain Company	Elevator A	646
ADM Grain Company	Elevator B	200
ADM Grain Company	Elevator I	1,367
ADM Grain Company	Elevator J	3,661
Cargill, Inc.	Hutchinson	878
Cargill, Inc.	Hutchinson W	889
TOTAL HUTCHINSON		7,643
ADM Grain Company	Salina A	839
Cargill, Inc.	Salina	6,292
Flint Hills Grain, LLC	Abilene	430
The Scoular Company	Salina	2,122
TOTAL SALINA/ABILENE		9,684
Bartlett Grain Company, LP	Wichita	2,416
Gavilon Grain, LLC	Wichita	6,108
Ardent Mills, LLC	Wichita	1,136
TOTAL WICHITA		9,660

As of August 2018, firms regular for delivery on KC HRW Wheat futures had regular storage capacity of approximately 166.2 million bushels and the ability to issue up to 33,233 shipping certificates.

KC HRW Wheat Futures Deliverable Supply Procedures and Estimates (Updated Annually):

Each Tuesday the Exchange publishes wheat meeting deliverable grades that are in-store as of the previous Friday at all regular delivery facilities. Deliverable supply is estimated as the stocks of grain in regular facilities on the Friday prior to First Notice Day. Although this measure does not distinguish stocks under long-term agreements, it is likely a very conservative estimate of deliverable supply because it does not count the significant amount of wheat that is likely near the delivery facilities and could easily be placed into delivery position very quickly. The Exchange may, at a later date, decide to estimate these stocks and included them in future deliverable supply estimates.

Futures Contract Expiration	Stocks of Wheat in Regular Facilities on the Friday prior to FND (1M Bushels)
Mar-17	101.82
Mar-16	74.14
Mar-15	41.07
MAR AVG	72.34
May-17	99.85
May-16	71.85
May-15	36.19
MAY AVG	69.03
Jul-17	117.74
Jul-16	100.42
Jul-15	50.43
JUL AVG	89.53
Sep-17	126.16
Sep-16	113.43
Sep-15	80.38
SEP AVG	106.66
Dec-17	117.20
Dec-16	108.58
Dec-15	81.08
DEC AVG	102.29
AVG ALL DELV MONTHS	88.02

Seasonality:

The Exchange continuously monitors the deliverable supply and the delivery requirements on the Contract. Further, the Exchange closely monitors seasonality and to the extent that the Exchange anticipates that 25 percent of any contract month's deliverable supply would fall below the current spot month limit, the Exchange would make a good faith effort to resolve conditions potentially limiting the adequacy of the deliverable supply or evaluate whether there is a need to adjust the spot-month position limit for that corresponding contract month.

Long Term Contracts:

There is no readily available data on KC HRW wheat under long-term contracts or agreements that could not be delivered on futures and should not be counted in deliverable supply estimates. Outreach to three regular warehousemen suggests long-term agreements should not affect grain in-store should it become economical to deliver against futures.

Protein:

To be delivered against KC HRW Wheat futures, wheat must be at least 10.5 percent protein. Average Kansas protein content always exceeds 11 percent². However, given variability in quality, some portion of wheat in storage at any given time could grade below 10.5 percent. However, Kansas grain elevators do a good job using wheat from high protein years to blend with wheat from lower protein wheat, so that, over time, virtually all stocks of wheat are deliverable. The conversion of delivery instrument from warehouse receipt to shipping certificate, which would allow a regular elevator to deliver against stocks of high-protein wheat located at another facility likely adds to an elevator's ability to blend virtually all stocks.

ANALYSIS OF DELIVERABLE SUPPLY

Based on the above analysis, the Exchange estimates the monthly deliverable supply over the past three years to be 88.02 million bushels or **17,604** contract equivalents (contract size: 5,000 bushels). The current spot month limit of 600 contracts represents **3.4%** of this estimated monthly deliverable supply.

² See, for example,

https://www.nass.usda.gov/Statistics_by_State/Kansas/Publications/Cooperative_Projects/Wheat_Quality/KS_whtqly16.pdf