

DATE 12-Aug-19

Cascade Commodity Consulting Company

All information is provided as a reference only and not intended to be used for trading.

US Basis and Flat Price Values FOB Vessel

Month	Futures	CBOT	KCBT	MGE	Matiff Euro/mt	Euro	Corn CBOT	\$ AUD	Beans CBOT	AUW	BWF
Sep-19	U	471.75	392.25	509.25	167.25	1.125	385.25	0.6762	866.75	228.00	196.00
Dec-19	Z	476.25	409.00	522.00	172.50	1.133	392.75	0.6778	879.25	231.00	204.00
Mar-20	H	484.00	425.25	537.00	176.25	1.140	403.25	0.6792	905.25	232.00	209.00
May-20	K	489.75	436.25	547.00	179.75	1.147	409.00	0.6805	917.00	233.00	210.50
Jul-20	N	495.00	446.25	557.00	178.75	1.153	412.75	0.6815	927.75	223.75	195.75

3-Month LIBOR  
2.181

Gulf Export		503.75 460.75				HRS			LAKES		
Basis (ct/bu)		HRW FOB Gulf				HRS		SRW	HRS		
		Ords	11.0%	11.5%	12.0%	13.0%	13.5%		13%	13.5%	14%
Old Crop		-40.00	-30.00	-15.00		TX Gulf -0 ct/bu					
New Crop		-40.00	-30.00	-15.00		0.00 14%+8			0.00		8.00
Shipment	Futures	Basis NOLA				HRS		SRW	HRS		
Jun	N	-	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	130.00	140.00	155.00	170.00	140.00	140.00	-	45.00	45.00	53.00
Sep	U	130.00	140.00	155.00	170.00	145.00	145.00	95.00	50.00	50.00	58.00
Oct	Z	120.00	130.00	145.00	160.00	145.00	145.00	95.00	-	-	-
Nov	Z	125.00	135.00	150.00	165.00	150.00	150.00	100.00	-	-	-
Dec	Z	125.00	135.00	150.00	165.00	155.00	155.00	105.00	-	-	-
Jan	H	115.00	125.00	140.00	155.00	-	-	100.00	-	-	-
Feb	H	125.00	135.00	150.00	165.00	-	-	105.00	-	-	-
Mar	H	125.00	135.00	150.00	165.00	-	-	110.00	-	-	-
Apr	K	115.00	125.00	140.00	155.00	-	-	-	-	-	-
May	K	120.00	130.00	145.00	160.00	-	-	-	-	-	-
Flat Price FOB Vessel		HRW				HRS		SRW	HRS		
Shipment	Futures	Ords	11.0%	11.5%	12.0%	13.0%	13.5%		13%	13.5%	14%
Jun	N	-	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	191.89	195.57	201.08	206.59	238.56	238.56	-	203.65	203.65	206.59
Sep	U	191.89	195.57	201.08	206.59	240.40	240.40	208.24	205.49	205.49	208.43
Oct	Z	194.37	198.05	203.56	209.07	245.08	245.08	209.90	-	-	-
Nov	Z	196.21	199.89	205.40	210.91	246.92	246.92	211.74	-	-	-
Dec	Z	196.21	199.89	205.40	210.91	248.75	248.75	213.57	-	-	-
Jan	H	198.51	202.18	207.69	213.21	-	-	214.58	-	-	-
Feb	H	202.18	205.86	211.37	216.88	-	-	216.42	-	-	-
Mar	H	202.18	205.86	211.37	216.88	-	-	218.26	-	-	-
Apr	K	202.55	206.22	211.74	217.25	-	-	-	-	-	-
May	K	204.39	208.06	213.57	219.08	-	-	-	-	-	-

PNW CASH BASIS FOB (S&T+S&F) US c/bu		10.50% 11.0% 11.5% 12.0%				NS 60 DHV			SWW	CANADA CASH BASIS	
Basis (ct/bu)		HRW				HRS		SRW	HRS		
		10.50%	11.0%	11.5%	12.0%	13%	13.5%	14.0%	Max 10.5% pro	Vancouver Canada	Vancouver Canada
New Crop		-10.00	-5.00		5.00	0.00	0.00	+10 14.5%		#2 13.5%	#1 13.8%
Old Crop										13.0% - 0	
Shipment	Futures	15 ct/bu prem DNS				HRS		SRW	HRS		
Jun	N	-	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	130.00	135.00	140.00	145.00	75.00	75.00	75.00	113	80.00	95.00
Sep	U	125.00	130.00	135.00	140.00	80.00	80.00	80.00	116	80.00	95.00
Oct	Z	115.00	120.00	125.00	130.00	85.00	85.00	85.00	115	75.00	90.00
Nov	Z	120.00	125.00	130.00	135.00	90.00	90.00	90.00	118	78.00	93.00
Dec	Z	125.00	130.00	135.00	140.00	95.00	95.00	95.00	121	80.00	95.00
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	-	-	-	-	-	-	-	-	-	-
Mar	H	-	-	-	-	-	-	-	-	-	-
Apr	K	-	-	-	-	-	-	-	-	-	-
May	K	-	-	-	-	-	-	-	-	-	-
Flat Price FOB Vessel (USD/mt)		HRW				HRS		SRW	HRS		
Shipment	Futures	10.50%	11.0%	11.5%	12.0%	13%	13.5%	14%	SWW	Vancouver Canada	Vancouver Canada
Jun	N	-	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	191.89	193.73	195.57	197.41	214.68	214.68	214.68	215	216.51	222.02
Sep	U	190.06	191.89	193.73	195.57	216.51	216.51	216.51	216	216.51	222.02
Oct	Z	192.54	194.37	196.21	198.05	223.03	223.03	223.03	217	219.36	224.87
Nov	Z	194.37	196.21	198.05	199.89	224.87	224.87	224.87	218	220.46	225.97
Dec	Z	196.21	198.05	199.89	201.72	226.71	226.71	226.71	219	221.20	226.71
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	-	-	-	-	-	-	-	-	-	-
Mar	H	-	-	-	-	-	-	-	-	-	-
Apr	K	-	-	-	-	-	-	-	-	-	-
May	K	-	-	-	-	-	-	-	-	-	-

DNS vs. HRW spot market Chicago gateway						Spring Wheat vs HRW Basis Chicago gateway							
Spot	DNS 14%	HRW 14%	DNS 13.5%	HRW 13%	DNS 13%	HRW 12%	Aug/Sep	DNS 14%	HRW 14%	DNS 13.5%	HRW 13%	DNS 13%	HRW 12%
Basis	80.00	190.00	80.00	190.00	80.00	142.00	Basis	75.00	170.00	70.00	170.00	65.00	135.00
Futures	509.25	392.25	509.25	392.25	509.25	392.25	Futures	509.25	392.25	509.25	392.25	509.25	392.25
Del Chicago	589.25	582.25	589.25	582.25	589.25	534.25	Del Chicago	584.25	562.25	579.25	562.25	574.25	527.25

<b>Spring Wheat + HRW Milling Blend</b>						
<b>14% HRS Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	85	509.25	594.25	2.5	573.68	64.43
11.5% HRW	130	392.25	522.25	1		
14% HRS Comparison	75	509.25	584.25			
<b>Blended Discount (ct/bu)</b>	<b>10.57</b>					

<b>14% HRS Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	85	509.25	594.25	3	571.25	62.00
11.0% HRW	110	392.25	502.25	1		
14% HRS Comparison	75	509.25	584.25			
<b>Blended Discount (ct/bu)</b>	<b>13.00</b>					

<b>14% HRS Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	85	509.25	594.25	4	573.85	64.60
10.0% HRW	100	392.25	492.25	1		
14% HRS Comparison	75	509.25	584.25			
<b>Blended Discount (ct/bu)</b>	<b>10.40</b>					

<b>13% HRS Protein Blend (Western Mills)</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	75	509.25	584.25	1.5	559.45	50.20
11.5% HRW	130	392.25	522.25	1		
13% HRS Comparison	65	509.25	574.25			
<b>Blended Discount (ct/bu)</b>	<b>14.80</b>					

<b>13% HRS Protein Blend (Eastern Mills)</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	75	509.25	584.25	2	556.92	47.67
11.0% HRW	110	392.25	502.25	1		
13% HRS Comparison	65	509.25	574.25			
<b>Blended Discount (ct/bu)</b>	<b>17.33</b>					

<b>12.25% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
15% HRS	85	509.25	594.25	1	538.15	145.90
10.0% HRW	100	392.25	492.25	1.2		
12.25% HRW Comparison	140	392.25	532.25			
<b>Blended Discount (ct/bu)</b>	<b>-5.90</b>					

<b>12.0% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	75	509.25	584.25	1	529.58	137.33
11.0% HRW	110	392.25	502.25	2		
12.0% HRW Comparison	135	392.25	527.25			
<b>Blended Discount (ct/bu)</b>	<b>-2.33</b>					

<b>12.0% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
13.5% HRS	70	509.25	579.25	1	533.05	140.80
11.0% HRW	110	392.25	502.25	1.5		
12.0% HRW Comparison	135	392.25	527.25			
<b>Blended Discount (ct/bu)</b>	<b>-5.80</b>					

<b>11.5% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	75	509.25	584.25	1	515.92	123.67
11.0% HRW	110	392.25	502.25	5		
11.5% HRW Comparison	130	392.25	522.25			
<b>Blended Discount (ct/bu)</b>	<b>6.33</b>					

<b>11.5% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	135	392.25	527.25	3	518.50	126.25
10.0% HRW	100	392.25	492.25	1		
11.5% HRW Comparison	130	392.25	522.25			
<b>Blended Discount (ct/bu)</b>	<b>3.75</b>					

<b>11.0% HRW Protein Blend</b>						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	135	392.25	527.25	1	509.75	117.50
10.0% HRW	100	392.25	492.25	1		
11.0% HRW Comparison	110	392.25	502.25			
<b>Blended Discount (ct/bu)</b>	<b>-7.50</b>					

12-Aug-19

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**US Grain Basis and Flat Price Values FOB Vessel**

Month	Futures	CBOT	KCBT	MGE	Matiff Euro/mt	Euro	Corn CBOT	Beans CBOT
Sep-19	U	471.75	392.25	509.25	167.25	1.13	385.25	866.75
Dec-19	Z	476.25	409.00	522.00	172.50	1.13	392.75	879.25
Mar-20	H	484.00	425.25	537.00	176.25	1.14	403.25	905.25
May-20	K	489.75	436.25	547.00	179.75	1.15	409.00	917.00
Jul-20	N	495.00	446.25	557.00	178.75	1.15	412.75	927.75

Basis (ct/bu)		US GULF			Basis (ct/bu)		PNW		
		Corn #2 YC	Sorghum	Soybeans			Corn #2 YC	Corn #3 YC	Soybeans
Shipment	Futures	CBOT			Shipment	Futures	CBOT		
July	N	-	-	-	July	N	-	-	-
A/S	U	70.00	50.00	65.00	A/S	U	100.00	95.00	80.00
O/N/D	Z	70.00	50.00	65.00	O/N/D	Z	100.00	95.00	80.00
Flat Price FOB Vessel (USD/mt)		US GULF			Flat Price FOB Vessel (USD/mt)		PNW		
Shipment	Futures	Corn #2 YC	Sorghum	Soybeans	Shipment	Futures	Corn #2 YC	Corn #3 YC	Soybeans
July	N	-	-	-	July	N	-	-	-
A/S	U	179.22	171.35	342.36	A/S	U	191.03	189.06	347.87
O/N/D	Z	182.18	174.30	346.95	O/N/D	Z	193.99	192.02	352.46

Cash and Carrying Charges

BNSF Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Aug	Oct	Dec	Feb	Apr	Jun
Basis ct/bu	130.00	125.00	135.00	130.00	125.00	115.00
Futures ct/bu	392.25	409.00	409.00	425.25	436.25	446.25
Flat Price	522.25	534.00	544.00	555.25	561.25	561.25
Rail Freight	1.35	2.03	-2.70	-4.05	1.35	1.35
Delivered Gulf	523.60	536.03	541.30	551.20	562.60	562.60
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Aug-Oct	12.43					
Aug-Dec			17.7			
Aug-Feb					27.59	
Aug-Apr					39.00	
Aug-Jun					39.00	
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Aug-Oct	6.21					
Aug-Dec			4.4			
Aug-Feb					4.60	
Aug-Apr					4.88	
Aug-Jun					3.90	

SRW	Aug	Oct	Dec	Feb	Apr	Jun
Basis ct/bu	65.00	75.00	75.00	70.00	70.00	65.00
Futures ct/bu	471.75	476.25	476.25	484.00	489.75	495.00
Flat Price	536.75	551.25	551.25	554.00	559.75	560.00
Barge Freight	-73.53	-76.99	-63.15	-61.42	-59.69	-57.96
FOB Shipper	463.23	474.27	488.11	492.59	500.07	502.05
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Aug-Oct	11.04					
Aug-Dec			24.9			
Aug-Feb					29.36	
Aug-Apr					36.84	
Aug-Jun					38.82	
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Aug-Oct	5.52					
Aug-Dec			6.2			
Aug-Feb					4.89	
Aug-Apr					4.61	
Aug-Jun					3.88	

UP Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Aug	Oct	Dec	Feb	Apr	Jun
Basis ct/bu	130.00	125.00	135.00	130.00	125.00	115.00
Futures ct/bu	392.25	409.00	409.00	425.25	436.25	446.25
Flat Price	522.25	534.00	544.00	555.25	561.25	561.25
Rail Freight	5.41	1.35	1.35	-0.68	0.68	1.35
Delivered Gulf	527.66	535.35	545.35	554.57	561.93	562.60
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Aug-Oct	7.70					
Aug-Dec			17.7			
Aug-Feb					26.92	
Aug-Apr					34.27	
Aug-Jun					34.95	
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Aug-Oct	3.85					
Aug-Dec			4.4			
Aug-Feb					4.49	
Aug-Apr					4.28	
Aug-Jun					3.49	

Domestic Freight				
Rail Freight	Rail Freight	Barge Freight	Barge Freight	Rail Freight
	BN Shuttle	Lower OH R.	Il. River	UP Shuttle
	\$bu/car over tariff	% of tariff	% of tariff	\$bu/car over tariff
	3700	12.00	17.30	3700
Jun '20	-50	295%	335%	-50
Jul '20	-50	295%	335%	-50
Aug '19	-50	315%	425%	-200
Sep '19	-175	390%	415%	-275
Oct '19	-75	440%	445%	-50
Nov '19		365%	390%	-50
Dec '19	100	315%	365%	-50
Jan '20	150	315%	365%	25
Feb '20	150	310%	355%	25
Mar '20	150	305%	350%	25
Apr '20	-50	300%	345%	-25
May '20	-50	300%	345%	-25
<b>Cents/Bushel Equivalent</b>				
Jun '20	-1.35	35.40	57.96	-1.35
Jul '20	-1.35	35.40	57.96	-1.35
Aug '19	-1.35	37.80	73.53	-5.41
Sep '19	-4.73	46.80	71.80	-7.43
Oct '19	-2.03	52.80	76.99	-1.35
Nov '19		43.80	67.47	-1.35
Dec '19	2.70	37.80	63.15	-1.35
Jan '20	4.05	37.80	63.15	0.68
Feb '20	4.05	37.20	61.42	0.68
Mar '20	4.05	36.60	60.55	0.68
Apr '20	-1.35	36.00	59.69	-0.68
May '20	-1.35	36.00	59.69	-0.68

Corn	Aug	Oct	Dec	Feb	Apr	Jun
Basis ct/bu	40.00	40.00	45.00	45.00	45.00	45.00
Futures ct/bu	385.25	392.75	392.75	403.25	409.00	412.75
Flat Price	425.25	432.75	437.75	448.25	454.00	457.75
Barge Freight	-73.53	-76.99	-63.15	-61.42	-59.69	-57.96
FOB Shipper	351.73	355.77	374.61	386.84	394.32	399.80
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Aug-Oct	4.04					
Aug-Dec			22.88			
Aug-Feb					35.11	
Aug-Apr					42.59	
Aug-Jun					48.07	
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Aug-Oct	2.02					
Aug-Dec			5.72			
Aug-Feb					5.85	
Aug-Apr					5.32	
Aug-Jun					4.81	

Soybeans	Aug	Oct	Dec	Feb	Apr	Jun
Basis ct/bu	35.00	30.00	35.00	35.00	35.00	35.00
Futures ct/bu	879.25	879.25	905.25	905.25	917.00	927.75
Flat Price	914.25	909.25	940.25	940.25	952.00	962.75
Barge Freight	-73.53	-76.99	-63.15	-61.42	-59.69	-57.96
FOB Shipper	840.73	832.27	877.11	878.84	892.32	904.80
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Aug-Oct	-8.46					
Aug-Dec			36.38			
Aug-Feb					38.11	
Aug-Apr					51.59	
Aug-Jun					64.07	
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Aug-Oct	-4.23					
Aug-Dec			9.10			
Aug-Feb					6.35	
Aug-Apr					6.45	
Aug-Jun					6.41	

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Foreign Basis and Flat Price Values FOB Vessel

Month	Futures	CBOT	KCBT	MGE	Matiff Euro/mt	Euro	\$ AUD	AUW	BWF
Sep-19	U	471.75	392.25	509.25	167.25	1.1252	0.6762	228.00	196.00
Dec-19	Z	476.25	409.00	522.00	172.50	1.1326	0.6778	231.00	204.00
Mar-20	H	484.00	425.25	537.00	176.25	1.1401	0.6792	232.00	209.00
May-20	K	489.75	436.25	547.00	179.75	1.1467	0.6805	233.00	210.50
Jul-20	N	495.00	446.25	557.00	178.75	1.1532	0.6815	223.75	195.75

Basis (ct/bu)		Argentine	S. Australia	S. Australia	W. Aust. APW	W. Aust.	FSU	French	German	Baltic
Shipment	Futures	11.5% KCBT Upriver	APW 10.5% CBOT	AH 11.5% CBOT	10.5% CBOT	ASW 9% CBOT	12.50% Matiff	11.50% Matiff Rouen	12.50% Matiff	12.50% Matiff
Jun	N	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-
Sep	U	250	143	176	149	135	6	-1.00	5.00	3.00
Oct	Z	-	147	180	152	139	1	-4.00	-	-2.00
Nov	Z	-	147	180	152	139	3	-3.00	2.00	-
Dec	Z	108	158	180	152	139	5	-2.00	4.00	1.00
Jan	H	92	153	175	147	134	2	-4.00	1.00	-2.00
Feb	H	100	153	175	147	134	4	-3.00	3.00	-
Mar	H	-	153	175	147	134	5	-2.00	5.00	2.00
Apr	K	-	-	-	-	-	-	-	-	-
May	K	-	-	-	-	-	-	-	-	-
Flat Price FOB Vessel (USD/mt)		Argentine	S. Australia	S. Australia	W. Aust. APW	W. Aust.	FSU	French	German	Baltic
Shipment	Futures	11.5% CBOT	APW 10.5% CBOT	AH 11.5% CBOT	10.5% CBOT	ASW 9% CBOT	12.50% Matiff	11.50% Matiff	12.50% Matiff	12.50% Matiff
Jun	N	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-
Sep	U	236.00	226.00	238.00	228.00	223.00	195.00	187.06	193.81	191.56
Oct	Z	-	229.00	241.00	231.00	226.00	197.00	190.84	195.37	193.11
Nov	Z	-	229.00	241.00	231.00	226.00	199.00	191.98	197.64	195.37
Dec	Z	190.00	233.00	241.00	231.00	226.00	201.00	193.11	199.90	196.51
Jan	H	190.00	234.00	242.00	232.00	227.00	203.00	196.37	202.07	198.65
Feb	H	193.00	234.00	242.00	232.00	227.00	205.00	197.51	204.35	200.93
Mar	H	-	234.00	242.00	232.00	227.00	207.00	198.65	206.63	203.21
Apr	K	-	-	-	-	-	-	-	-	-
May	K	-	-	-	-	-	-	-	-	-

Basis (ct/bu)		Canada T. B.	St. Law	Vancouver	Vancouver	Vancouver
Shipment	Futures	13.50% MGEX	#2, 13.5% MGEX	Canada #2 13.0% 12.5% -10	Canada #2 13.5%	Canada #1 13.8%
<b>New Crop</b>				-10.00		15.00
Jun	N	-	-	-	-	-
Jul	N	-	-	-	-	-
Aug	U	-	88.00	70.00	80.00	95.00
Sep	U	-	80.00	70.00	80.00	95.00
Oct	Z	-	85.00	65.00	75.00	90.00
Nov	Z	-	90.00	68.00	78.00	93.00
Dec	Z	-	95.00	70.00	80.00	95.00
Apr	K	-	-	-	-	-
May	N	-	-	-	-	-
Flat Price FOB Vessel (USD/mt)		Canada T. B.	St. Law	Vancouver	Vancouver	Vancouver
Shipment	Futures	13.00% MGEX	#2, 13% MGEX	Canada #2 13.0%	Canada #2 13.5%	Canada #1 13.8%
Jun	N	-	-	-	-	-
Jul	N	-	-	-	-	-
Aug	U	-	219.45	212.84	216.51	222.02
Sep	U	-	216.51	212.84	216.51	222.02
Oct	Z	-	223.03	215.69	219.36	224.87
Nov	Z	-	224.87	216.79	220.46	225.97
Dec	Z	-	226.71	217.52	221.20	226.71
Apr	K	-	-	-	-	-
May	N	-	-	-	-	-

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Based upon 8 kmt/day load & 5 kmt/day unload, 3.75% commission, SHEX EIU

Destination Country (Port) (Vessel Size)	Freight Spread Using Houston As Baseline											
	Origin (Port)											
	S. Aust. (Adelaide)	W. Aust. (Kwinana)	PNW (Kalama)	Gulf (New Orleans)	Gulf (Houston)	Canada (Vancouver)	Canada (Montreal)	Russia (Novo)	Germany (Hamburg)	Poland (Gdansk)	France (La Pallice)	Argentina (UP+BB)
Indonesia (Jakarta) (50 kmt)	(30)	(32)	(12)	1	0	(23)	0	(11)	(6)	(6)	(8)	(11)
Brazil (Fortaleza) (30 kmt)	19	16	6	1	0	6	5	0	(1)	(1)	(3)	0
Egypt (Damietta) (60 kmt)	2	0	6	1	0	6	0	(12)	(7)	(7)	(8)	3
Saudi Arabia (Jeddah) (60 kmt)	(11)	(14)	(3)	1	0	(3)	0	(9)	(6)	(6)	(8)	-
Algeria (Algiers) (30 kmt, 3 kmt/day unlo)	-	-	-	1	0	-	-	-	(10)	(9)	(12)	6
Morocco (Casa Blanca) (30 kmt)	-	-	-	1	0	-	-	(9)	(9)	(9)	(12)	5
Nigeria (Lagos) (40 kmt)	(2)	(5)	3	1	0	3	2	(4)	(4)	(4)	(6)	(1)
Kenya (Mombasa) (40 kmt)	(15)	(17)	3	1	0	1	1	(9)	(7)	(7)	(9)	(5)

Destination Protein/Class FOB	C&F Advantage/Disadvantage															
	Origin															
	S. Aust.	W. Aust.	W. Aust.	W. Aust.	PNW	PNW	PNW	Gulf	Vancouver	Montreal	Russia	Germany	Poland	France	Argentina	
	APW	AH2	APW	ASW	SWW	HRW	HRS	SRW	11.0% HRW	13.5%	13.5%	12.5%	12.5%	12.5%	11%	11.5%
	226	238	228	223	216	194	217	210	198	219	223	195	194	192	187	236
Indonesia (Jakarta) (50 kmt)	-2	8	-2	-7	6	-16	6	13	0	-2	25	-14	-10	-12	-19	27
Brazil (Fortaleza) (30 kmt)								13	0	27	30	-3				38
Egypt (Damietta) (60 kmt)					24	2		13	0			-15	-11	-13	-19	41
Saudi Arabia (Jeddah) (60 kmt)	17	26	16	11	15	-7	15		0	18	25	-12	-10	-12		
Algeria (Algiers) (30 kmt, 3 kmt/day unload)									0				-14	-15	-23	44
Morocco (Casa Blanca) (30 kmt)									0			-12	-13	-15	-23	43
Nigeria (Lagos) (40 kmt)	26	35	25	20					0	24	27	-7	-8	-10		37
Kenya (Mombasa) (40 kmt)	13	23	13	8					0	22	26	-12	-11	-13		33

World Wheat FOB Comparisons										
Origin	<u>Russian</u>	<u>German</u>	<u>Baltic</u>	<u>Argentina</u>	<u>HRW</u>	<u>HRW</u>	<u>HRW</u>	<u>French</u>	<u>UK</u>	<u>SRW</u>
Protein (dmb)	12.50%	12.50%	12.50%	11.50%	12.50%	11.00%	10.20%	11.00%	11.00%	10.20%
Protein (12% mb)	11.00%	11.00%	11.00%	10.12%	11.00%	9.68%	9.00%	9.68%	9.68%	9.00%
Sep	\$195	\$194	\$192	\$236	\$196	\$192	\$191	\$187	\$190	\$208
Oct	\$197	\$195	\$193	-	\$198	\$194	\$193	\$191	\$192	\$210
Nov	\$199	\$198	\$195	-	\$200	\$196	\$195	\$192	\$193	\$212
Dec	\$201	\$200	\$197	\$190	\$200	\$196	\$195	\$193	\$195	\$214

World Wheat FOB Comparisons										
Origin	<u>APW</u>	<u>AH2</u>	<u>ASW</u>	<u>HRW PNW</u>	<u>HRW PNW</u>	<u>SWW</u>	<u>NS</u>	<u>NS</u>	<u>CWRS</u>	<u>CWRS</u>
Protein (dmb)	11.80%	12.90%	10.10%	12.00%	13.10%	12.00%	15.30%	15.90%	15.50%	15.90%
Protein (local)	10.50%	11.50%	9.00%	10.50%	11.50%	10.50%	13.50%	14.00%	13.50%	13.80%
Sep	\$228	\$238	\$223	\$190	\$194	\$216	\$217	\$217	\$217	\$222
Oct	\$231	\$241	\$226	\$193	\$196	\$217	\$223	\$223	\$219	\$225
Nov	\$231	\$241	\$226	\$194	\$198	\$218	\$225	\$225	\$220	\$226
Dec	\$231	\$241	\$226	\$196	\$200	\$219	\$227	\$227	\$221	\$227

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Price=USD		Spread Analysis		
Delivery Month		U	Z	H
Starts		1-Sep	1-Dec	1-Mar
Ends		1-Dec	1-Mar	1-May
Total Days		91	91	61
<b>Corn Closing Price</b>		<b>385.25</b>	<b>392.75</b>	<b>403.25</b>
Storage rate		0.165	0.265	0.265
Total Storage		15.02	24.12	16.17
Total Interest		4.07	4.15	2.86
Full Carry		19.09	28.27	19.02
Spread Close		-7.50	-10.50	-5.75
% Full Carry		39%	37%	30%
<b>CME W Closing Price</b>		<b>471.75</b>	<b>476.25</b>	<b>484.00</b>
Storage rate		0.165	0.165	0.165
Total Storage		15.02	15.02	10.07
Total Interest		4.99	5.03	3.43
Full Carry		20.00	20.05	13.49
Spread Close		-4.50	-7.75	-5.8
% Full Carry		22%	39%	43%
<b>KCBT Closing Price</b>		<b>392.25</b>	<b>409.00</b>	<b>425.25</b>
Storage rate		0.265	0.265	0.265
Total Storage		24.12	24.12	16.17
Total Interest		4.15	4.32	3.01
Full Carry		28.26	28.44	19.18
Spread Close		-16.75	-16.25	-11.00
% Full Carry		59%	57%	57%
<b>MGEX Closing Price</b>		<b>509.25</b>	<b>522.00</b>	<b>537.00</b>
Storage rate		0.233	0.233	0.233
Total Storage		21.20	21.20	14.21
Total Interest		5.38	5.52	3.80
Full Carry		26.59	26.72	18.02
Spread Close		-12.75	-15.00	-10.00
% Full Carry		48%	56%	56%

VSR INCREASES		U	Z	H	K	N
CME VSR (ct/bu)	Spread	U-Z	Z-H	H-K	K-N	N-U
<b>Futures Close Price</b>	<b>Days</b>	<b>471.75</b>	<b>476.25</b>	<b>484.00</b>	<b>489.75</b>	<b>495.00</b>
Base Storage	0.165	15.02	15.02	10.07	10.07	10.23
U-Z (increase .10)	91	7.30	9.10	6.10	6.10	6.20
Z-H (increase .10)	91		7.30	6.10	6.10	6.20
H-K (increase .10)	61			4.30	6.10	6.20
K-N (increase .10)	61				4.30	6.20
N-U (increase .10)	62					4.40
Total Storage		22.32	31.42	26.57	32.67	39.43
Interest Charge	4.18%	4.99	5.03	3.43	3.47	3.56
Full Carry B4 VSR		20.00	20.05	13.49	13.53	13.79
Closing Board Spread		4.50	7.75	5.75	5.25	8.75
Closing Spread % FC		22%	39%	43%	39%	63%

VSR INCREASES		U	Z	H	K	N
KCBT VSR (ct/bu)	Spread	U-Z	Z-H	H-K	K-N	N-U
<b>Futures Close Price</b>	<b>Days</b>	<b>392.25</b>	<b>409.00</b>	<b>425.25</b>	<b>436.25</b>	<b>446.25</b>
Base Storage	0.265	24.12	24.12	16.17	16.17	16.43
U-Z (increase .10)	91	7.30	9.10	6.10	6.10	6.20
Z-H (increase .10)	91		7.30	6.10	6.10	6.20
H-K (increase .10)	61			4.30	6.10	6.20
K-N (increase .10)	61				4.30	6.20
N-U (increase .10)	62					4.40
Total Storage		31.42	40.52	32.67	38.77	45.63
Interest Charge	4.18%	4.15	4.32	3.01	3.09	3.21
Full Carry B4 VSR		28.26	28.44	19.18	19.26	19.64
Closing Board Spread		16.75	16.25	11.00	10.00	14.50
Closing Spread % FC		59%	57%	57%	52%	74%

VSR DECREASES		U	Z	H	K	N
CME VSR (ct/bu)	Spread	U-Z	Z-H	H-K	K-N	N-U
<b>Futures Close Price</b>	<b>Days</b>	<b>471.75</b>	<b>476.25</b>	<b>484.00</b>	<b>489.75</b>	<b>495.00</b>
Base Storage	0.165	15.02	15.02	10.07	10.07	10.23
U-Z (increase .10)	91	*	*	*	*	*
Z-H (increase .10)	91		*	*	*	*
H-K (increase .10)	61			*	*	*
K-N (increase .10)	61				*	*
N-U (increase .10)	62					*
Total Storage		15.02	15.02	10.07	10.07	10.23
Interest Charge	4.18%	4.99	5.03	3.43	3.47	3.56
Full Carry B4 VSR		20.00	20.05	13.49	13.53	13.79
Closing Board Spread		4.50	7.75	5.75	5.25	8.75
Closing Spread % FC		22%	39%	43%	39%	63%

\* VSR could not decrease any further because it would already be at the minimum storage rate of 0.165 ct/bu/day

503.75

460.75

VSR DECREASES		U	Z	H	K	N
KCBT VSR (ct/bu)	Spread	U-Z	Z-H	H-K	K-N	N-U
<b>Futures Close Price</b>	<b>Days</b>	<b>392.25</b>	<b>409.00</b>	<b>425.25</b>	<b>436.25</b>	<b>446.25</b>
Base Storage	0.265	24.12	24.12	16.17	16.17	16.43
U-Z (increase .10)	91	-7.30	-9.10	-6.10	-6.10	-6.20
Z-H (increase .10)	91		*	*	*	*
H-K (increase .10)	61			*	*	*
K-N (increase .10)	61				*	*
N-U (increase .10)	62					*
Total Storage		16.82	15.02	10.07	10.07	10.23
Interest Charge	4.18%	4.15	4.32	3.01	3.09	3.21
Full Carry B4 VSR		28.26	28.44	19.18	19.26	19.64
Closing Board Spread		16.75	16.25	11.00	10.00	14.50
Closing Spread % FC		59%	57%	57%	52%	74%

\* VSR could not decrease any further because it would already be at the minimum storage rate of 0.165 ct/bu/day

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**Wheat vs Corn Feeding Relationship**

	<b>SW Kansas</b>		<b>Texas Panhandle</b>		<b>North Carolina</b>	
	<b>HRW</b>	<b>Corn</b>	<b>HRW</b>	<b>Corn</b>	<b>SRW</b>	<b>Corn</b>
Basis	-45.00	-5.00	-5.25	44.75	0.25	76.75
Futures	392.25	385.25	392.25	385.25	471.75	385.25
Flat Price	347.25	380.25	387.00	430.00	472.00	462.00
Flat Price (mt)	127.59	150.85	142.20	170.58	173.43	183.28
Wheat/Corn	<b>85%</b>		<b>83%</b>		<b>95%</b>	

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Price=USD	KCBT Delivery Calculations (BN Freight)								
	Taker Gulf (24-48 heavy cars)			Delivered Gulf (Shuttle/Heavy)			Delivered KC (1-23 heavy cars)		
	Hutchinson	Salina	Wichita	Hutchinson	Salina	Wichita	Hutchinson	Salina	Wichita
<b>11.0% Protein</b>									
Delivery Differential	-9.00	-12.00	-6.00	-9.00	-12.00	-6.00	-9.00	-12.00	-6.00
Protein Discount for 10.5% (-10 ct)									
Del. Loadout Charge	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00
Misc. Costs	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Delivery Value	1.00	-2.00	4.00	1.00	-2.00	4.00	1.00	-2.00	4.00
<b>Tariff Rate (\$/car)</b>	<b>5887.00</b>	<b>5990.00</b>	<b>5792.00</b>	<b>4454.00</b>	<b>4555.00</b>	<b>4361.00</b>	<b>4457.00</b>	<b>4473.00</b>	<b>4450.00</b>
Tariff Rate (c/bu)	159.11	161.89	156.54	120.38	123.11	117.86	120.46	120.89	120.27
<b>Mileage Houston, TX</b>	<b>688.00</b>	<b>761.00</b>	<b>632.00</b>	<b>688.00</b>	<b>761.00</b>	<b>632.00</b>	-	-	-
Rail Cost (c/bu)	0.00	0.00	0.00	-7.43	-7.43	-7.43	0.00	0.00	0.00
<b>Freight Cost (c/bu)</b>	<b>159.11</b>	<b>161.89</b>	<b>156.54</b>	<b>112.95</b>	<b>115.68</b>	<b>110.43</b>	<b>120.46</b>	<b>120.89</b>	<b>120.27</b>
Delivered Value	160.11	159.89	160.54	113.95	113.68	114.43	121.46	118.89	124.27
<b>Delivered bid (10.5% protein)</b>	<b>125.00</b>	<b>125.00</b>	<b>125.00</b>	<b>125.00</b>	<b>125.00</b>	<b>125.00</b>	<b>120.00</b>	<b>120.00</b>	<b>120.00</b>
<b>Cash vs. Delivery</b>	<b>-35.11</b>	<b>-34.89</b>	<b>-35.54</b>	<b>11.05</b>	<b>11.32</b>	<b>10.57</b>	<b>-1.46</b>	<b>1.11</b>	<b>-4.27</b>
<b># of Days in Storage</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>
Storage Cost	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22
<b>Futures</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>	<b>392.25</b>
Interest Cost	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
TTL Est. Carry Cost	9.63	9.63	9.63	9.63	9.63	9.63	9.63	9.63	9.63
<b>Cash vs. Delivery</b>	<b>-44.74</b>	<b>-44.52</b>	<b>-45.17</b>	<b>1.43</b>	<b>1.70</b>	<b>0.94</b>	<b>-11.09</b>	<b>-8.52</b>	<b>-13.90</b>

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CBOT Wheat Delivery Calculations

<i>Price=USD</i>	Ohio River	MTCT	Chicago (river)	St. Louis	Chicago (domestic)	Toledo / Bellevue	NW OH
Delivery Differential	0.00	20.00	0.00	10.00	0.00	0.00	-10.00
Del. Loadout Charge	6.00	6.00	6.00	6.00	6.00	6.00	6.00
Misc. Costs	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Delivery Value	8.00	28.00	8.00	18.00	8.00	8.00	-2.00
<b>Barge Freight</b>	<b>390%</b>	<b>365%</b>	<b>415%</b>	<b>365%</b>	NA	NA	NA
<b>Tarriff</b>	<b>12.00</b>	<b>9.40</b>	<b>17.30</b>	<b>12.00</b>	NA	NA	NA
Barge Freight (c/bu)/ Lakes	<b>46.80</b>	<b>34.31</b>	<b>71.80</b>	<b>43.80</b>	NA	NA	NA
Delivered Value	54.80	62.31	79.80	61.80	8.00	8.00	-2.00
<b>Delivered Gulf / FOB Elevator</b>	<b>75.00</b>	<b>75.00</b>	<b>75.00</b>	<b>75.00</b>	<b>60.00</b>	<b>40.00</b>	<b>35.00</b>
Cash vs. Delivery	20.20	12.69	-4.80	13.20	52.00	32.00	37.00
<b># of Days in Storage</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>31</b>
Storage Cost	5.12	5.12	5.12	5.12	5.12	5.12	5.12
<b>Futures</b>	<b>471.75</b>	<b>471.75</b>	<b>471.75</b>	<b>471.75</b>	<b>471.75</b>	<b>471.75</b>	<b>471.75</b>
Interest Cost	1.70	1.70	1.70	1.70	1.70	1.70	1.70
TTL Est. Carry Cost	6.81	6.81	6.81	6.81	6.81	6.81	6.81
Cash vs. Delivery	13.39	5.88	-11.61	6.39	45.19	25.19	30.19

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**Cascade Commodity Consulting Company  
MGEX Delivery Calculations**

Price=USD

	Delivered Chicago Gateway		Duluth Replacement*
<b>13.5% Protein</b>	<b>Duluth (BNSF) 110 cars</b>	<b>Duluth (CP) Single/25 cars</b>	<b>Duluth (CP) DETS (FOB Dul/Sup)*</b>
Delivery Differential	3.00	3.00	3.00
Protein discount for 13.0% (-3 ct)	-3.00	-3.00	-3.00
Del. Loadout Charge	8.00	8.00	8.00
Test Wt	2.00	2.00	2.00
Misc. Costs	2.00	2.00	2.00
Delivery Value	12.000	12.000	12.000
<b>Tariff Rate</b>	<b>2283.00</b>	<b>2299.00</b>	<b>N/A</b>
Tariff Rate (c/bu)	61.70	62.14	0.00
Rail Cost	-4.73	-7.43	N/A
Freight Cost (c/bu) (Dul -18.25)	56.97	54.70	-35.00
Delivered Value	68.97	66.70	25.00
<b>Del. Chicago Gateway Bid</b>	<b>60.00</b>	<b>60.00</b>	<b>60.00</b>
Cash vs. Delivery	-8.97	-6.70	13.00
<b># of Days in Storage</b>	<b>31.00</b>	<b>31.00</b>	<b>31.00</b>
Storage Cost	7.00	7.00	7.00
<b>Futures</b>	<b>509.25</b>	<b>509.25</b>	<b>509.25</b>
Interest Cost	1.83	1.83	N/A
TTL Est. Carry Cost	8.83	8.83	N/A
Cash vs. Delivery	-17.81	-15.54	N/A

\* Duluth replacement = Chicago Gateway Delivery less \$1,300/car (-35.00 ct/bu) for single cars  
 FOB Lakes = Duluth replacement + Elevation

*All information is provided as a reference only and not intended to be used for trading.*

Price=USD

### CBOT Corn Delivery Calculations

<b>Illinois River</b>	<b>Zone 1</b>	<b>Zone 2</b>	<b>Zone 3</b>	<b>Zone 4</b>
Delivery Differential	0.00	2.00	2.50	3.00
Del. Loadout Charge	6.00	6.00	6.00	6.00
Misc. Costs	0.00	0.00	0.00	0.00
Delivery Value	6.00	8.00	8.50	9.00
<b>Barge Rate</b>	<b>415%</b>	<b>415%</b>	<b>415%</b>	<b>415%</b>
Tarriff	16.20	14.70	14.25	13.50
<b>Barge Freight (ct/bu)</b>	<b>67.23</b>	<b>61.01</b>	<b>59.14</b>	<b>56.03</b>
Delivered Value	73.23	69.01	67.64	65.03
<b>Delivered Bid</b>	<b>50.00</b>	<b>50.00</b>	<b>50.00</b>	<b>50.00</b>
Cash vs. Delivery	-23.23	-19.01	-17.64	-15.03
<b># of Days in Storage</b>	<b>31.00</b>	<b>31.00</b>	<b>31.00</b>	<b>31.00</b>
Storage Cost	5.00	5.00	5.00	5.00
<b>Futures</b>	<b>385.25</b>	<b>385.25</b>	<b>385.25</b>	<b>385.25</b>
Interest Cost	1.387	1.387	1.387	1.387
TTL Est. Carry Cost	6.39	6.39	6.39	6.39
Cash vs. Delivery	-29.62	-25.39	-24.02	-21.41

*All information is provided as a reference only and not intended to be used for trading.*

**Wheat Stocks as of July 5, 2019**

Date	5-Jul	Wk Ago	Change	YR Ago
KCBT	96,399	88,583	7,816	121,961
CBOT	45,054	43,839	1,215	78,437
MGEX	13,397	12,895	502	15,353

**KCBT Wheat Stocks**

Date	5-Jul	Wk Ago	Change	YR Ago
Hutchinson	27,375	25,061	2,314	28,351
KC	8,513	8,468	45	11,034
Salina	27,704	23,607	4,097	37,917
Wichita	32,807	31,447	1,360	44,659
<b>Total</b>	<b>96,399</b>	<b>88,583</b>	<b>7,816</b>	<b>121,961</b>

**CBOT Wheat Stocks**

Date	5-Jul	Wk Ago	Change	YR Ago
Chicago	3,966	4,438	(472)	8,793
Miss. River	6,000	5,545	455	16,630
NW Ohio	7,516	7,558	(42)	10,946
Ohio River	5,203	4,584	619	15,941
St. Louis	1,605	1,288	317	3,454
Toledo	20,764	20,426	338	22,673
<b>Total</b>	<b>45,054</b>	<b>43,839</b>	<b>1,215</b>	<b>78,437</b>
<b>Non-Deliver</b>	<b>5,599</b>	<b>4,990</b>	<b>609</b>	<b>7,454</b>
<b>Net-Deliver</b>	<b>39,455</b>	<b>38,849</b>	<b>606</b>	<b>70,983</b>

**MGEX Wheat Stocks**

Date	5-Jul	Wk Ago	Change	YR Ago
Mpls	1,376	1,372	4	1,128
Duluth	12,021	11,523	498	14,225
<b>Total</b>	<b>13,397</b>	<b>12,895</b>	<b>502</b>	<b>15,353</b>

7/30/2019

**CHICAGO SRW WHEAT VSR**

**Variable Storage Rate September 2019 - December 2019 Calculation Period**

September 2019 First Delivery Day 9/3/2019  
 December 2019 First Delivery Day 12/2/2019  
 Number of Carry Days 90  
 Storage Rate Used in Calculation \$0.00165/bu/day  
 Running Average Percent of Full Carry 42.99%

Date	Sep 2019 Contract Price	Dec 2019 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Sep19-Dec19 Spread	Sep-Dec Spread as % of Full Carry
7/19/2019	\$5.0250	\$5.1350	4.25938	0.202008	0.1100	54.5%
7/22/2019	\$4.8725	\$4.9900	4.28275	0.200669	0.1175	58.6%
7/23/2019	\$4.8725	\$4.9825	4.27550	0.200581	0.1100	54.8%
7/24/2019	\$4.9775	\$5.0675	4.26663	0.201593	0.0900	44.6%
7/25/2019	\$4.9950	\$5.0725	4.25575	0.201644	0.0775	38.4%
7/26/2019	\$4.9600	\$5.0425	4.26575	0.201395	0.0825	41.0%
7/29/2019	\$5.0375	\$5.0850	4.25550	0.202093	0.0475	23.5%
7/30/2019	\$4.9725	\$5.0300	4.25313	0.201372	0.0575	28.6%
7/31/2019				0.148500	0.0000	0.0%
8/1/2019				0.148500	0.0000	0.0%
8/2/2019				0.148500	0.0000	0.0%
8/5/2019				0.148500	0.0000	0.0%
8/6/2019				0.148500	0.0000	0.0%
8/7/2019				0.148500	0.0000	0.0%
8/8/2019				0.148500	0.0000	0.0%
8/9/2019				0.148500	0.0000	0.0%
8/12/2019				0.148500	0.0000	0.0%
8/13/2019				0.148500	0.0000	0.0%
8/14/2019				0.148500	0.0000	0.0%
8/15/2019				0.148500	0.0000	0.0%
8/16/2019				0.148500	0.0000	0.0%
8/19/2019				0.148500	0.0000	0.0%
8/20/2019				0.148500	0.0000	0.0%
8/21/2019				0.148500	0.0000	0.0%
8/22/2019				0.148500	0.0000	0.0%
8/23/2019				0.148500	0.0000	0.0%

**Results:**

Current Maximum Premium (Storage) Charge: \$0.00165/bu/day

If the Running Average Percent of Full Carry on 8/23/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00265 on 9/19/2019

If the Running Average Percent of Full Carry on 8/23/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 9/19/2019

If the Running Average Percent of Full Carry on 8/23/2019 is 50% or Less, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 9/19/2019

8/9/2019

**KANSAS CITY HRW WHEAT VSR**

**Variable Storage Rate September 2019 - December 2019 Calculation Period**

September 2019 First Delivery Day 9/3/2019  
 December 2019 First Delivery Day 12/2/2019  
 Number of Carry Days 90  
 Storage Rate Used in Calculation \$0.00265/bu/day  
 Running Average Percent of Full Carry 63.08%

Date	Sep 2019 Contract Price	Dec 2019 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Sep19-Dec19 Spread	Sep-Dec Spread as % of Full Carry	
7/19/2019	\$4.4000	\$4.5975	4.25938	0.285353	0.1975	69.2%	0.441876
7/22/2019	\$4.2925	\$4.4850	4.28275	0.284459	0.1925	67.7%	0.125755
7/23/2019	\$4.3150	\$4.4925	4.27550	0.284622	0.1775	62.4%	
7/24/2019	\$4.3950	\$4.5575	4.26663	0.285380	0.1625	56.9%	
7/25/2019	\$4.3750	\$4.5500	4.25575	0.285047	0.1750	61.4%	
7/26/2019	\$4.3200	\$4.5025	4.26575	0.284570	0.1825	64.1%	
7/29/2019	\$4.3650	\$4.5400	4.25550	0.284938	0.1750	61.4%	
7/30/2019	\$4.3350	\$4.5100	4.25313	0.284593	0.1750	61.5%	
7/31/2019				0.238500	0.0000	0.0%	
8/1/2019				0.238500	0.0000	0.0%	
8/2/2019				0.238500	0.0000	0.0%	
8/5/2019				0.238500	0.0000	0.0%	
8/6/2019				0.238500	0.0000	0.0%	
8/7/2019				0.238500	0.0000	0.0%	
8/8/2019				0.238500	0.0000	0.0%	
8/9/2019				0.238500	0.0000	0.0%	
8/12/2019				0.238500	0.0000	0.0%	
8/13/2019				0.238500	0.0000	0.0%	
8/14/2019				0.238500	0.0000	0.0%	
8/15/2019				0.238500	0.0000	0.0%	
8/16/2019				0.238500	0.0000	0.0%	
8/19/2019				0.238500	0.0000	0.0%	
8/20/2019				0.238500	0.0000	0.0%	
8/21/2019				0.238500	0.0000	0.0%	
8/22/2019				0.238500	0.0000	0.0%	
8/23/2019				0.238500	0.0000	0.0%	

**Results:**

Current Maximum Premium (Storage) Charge: \$0.00265/bu/day

If the Running Average Percent of Full Carry on 8/23/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00365 on 9/19/2019

If the Running Average Percent of Full Carry on 8/23/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00265/bu/day on 9/19/2019

If the Running Average Percent of Full Carry on 8/23/2019 is 50% or Less, the Maximum Premium (Storage) Charge will decline to \$0.00165/bu/day on 9/19/2019