

DATE 24-Jan-20

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	3-Month LIBOR
Sep-20	U	578.25	508.75	573.00	188.00	1.119	395.75	0.6856	934.25	272.75	211.00	1.81
Dec-20	Z	586.25	519.25	583.25	190.00	1.124	398.25	0.6868	944.00	269.75	215.75	
Mar-20	H	573.50	486.00	547.50	195.50	1.106	387.25	0.6829	902.00	271.75	233.50	
May-20	K	572.50	493.50	557.00	194.75	1.111	392.75	0.6838	915.75	272.50	235.00	
Jul-20	N	573.00	500.75	565.00	188.00	1.113	397.75	0.6843	929.50	272.75	208.25	
		592.75	529.50				407.75		937.5			

Gulf Export		HRW FOB Gulf				HRS		SRW	LAKES		
Basis (ct/bu)		Ords	11.0%	11.5%	12.0%	13.0%	13.5%		13%	HRS 13.5%	14%
Old Crop		-45.00	-40.00	-20.00		TX Gulf -0 ct/bu					
New Crop		-45.00	-40.00	-20.00		-5.00	14% +10		0.00		8.00
Shipment	Futures	Basis NOLA									
Jun	N	130.00	135.00	155.00	175.00	-	-	-	-	-	-
Jul	N	130.00	135.00	155.00	175.00	-	-	-	-	-	-
Aug	U	130.00	135.00	155.00	175.00	-	-	-	-	-	-
Sep	U	130.00	135.00	155.00	175.00	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	130.00	135.00	155.00	175.00	195.00	200.00	140.00	-	-	-
Mar	H	130.00	135.00	155.00	175.00	195.00	200.00	140.00	-	-	-
Apr	K	130.00	135.00	155.00	175.00	195.00	200.00	140.00	-	-	-
May	K	130.00	135.00	155.00	175.00	195.00	200.00	140.00	-	-	-
Flat Price FOB Vessel		HRW				HRS		SRW	LAKES		
Shipment	Futures	Ords	11.0%	11.5%	12.0%	13.0%	13.5%		13%	HRS 13.5%	14%
Jun	N	231.76	233.60	240.95	248.30	-	-	-	-	-	-
Jul	N	231.76	233.60	240.95	248.30	-	-	-	-	-	-
Aug	U	234.70	236.54	243.89	251.24	-	-	-	-	-	-
Sep	U	234.70	236.54	243.89	251.24	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	226.34	228.18	235.53	242.88	272.82	274.66	262.17	-	-	-
Mar	H	226.34	228.18	235.53	242.88	272.82	274.66	262.17	-	-	-
Apr	K	229.10	230.93	238.28	245.63	276.31	278.15	261.80	-	-	-
May	K	229.10	230.93	238.28	245.63	276.31	278.15	261.80	-	-	-

PNW CASH BASIS FOB (S&T+S&F) US c/bu		HRW				NS 50 DHV, 300 FN			SWW	CANADA CASH BASIS	
Basis (ct/bu)		10.50%	11.0%	11.5%	12.0%	13%	13.5%	14.0%	Max 10.5% pro	Vancouver Canada	Vancouver Canada
New Crop										#2 13.5%	#1 13.8%
Old Crop		-10.00	-5.00		10.00	-15.00	-10.00	+15 14.5%		275 FN	
Shipment	Futures	10 ct/bu disc 25 DHV, -10 for 275 FN									
Jun	N	-	-	-	-	-	-	-	-	145.00	185.00
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	155.00	160.00	165.00	175.00	125.00	130.00	140.00	72	-	-
Mar	H	155.00	160.00	165.00	175.00	125.00	130.00	140.00	75	-	-
Apr	K	155.00	160.00	165.00	175.00	125.00	130.00	140.00	79	145.00	185.00
May	K	155.00	160.00	165.00	175.00	125.00	130.00	140.00	82	148.00	188.00
Flat Price FOB Vessel (USD/mt)		HRW				HRS			SWW	Vancouver Canada	
Shipment	Futures	10.50%	11.0%	11.5%	12.0%	13%	13.5%	14%		Vancouver Canada	Vancouver Canada
Jun	N	-	-	-	-	-	-	-	-	260.88	275.58
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	235.53	237.36	239.20	242.88	247.10	248.94	252.61	237	-	-
Mar	H	235.53	237.36	239.20	242.88	247.10	248.94	252.61	238	-	-
Apr	K	238.28	240.12	241.96	245.63	250.59	252.43	256.10	239	257.94	272.64
May	K	238.28	240.12	241.96	245.63	250.59	252.43	256.10	240	259.04	273.74

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%	Apr/May	DNS 14%	HRW 14%	DNS 13.5%	HRW 13%	DNS 13%	HRW 12%
Basis	130.00	220.00	90.00	195.00	90.00	140.00	Basis	130.00	220.00	125.00	195.00	125.00	140.00
Futures	547.50	486.00	547.50	486.00	547.50	486.00	Futures	557.00	493.50	557.00	493.50	557.00	493.50
Del Chicago	677.50	706.00	637.50	681.00	637.50	626.00	Del Chicago	687.00	713.50	682.00	688.50	682.00	633.50

Spring Wheat + HRW Milling Blend						
14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	135	557.00	692.00	2.5	668.14	111.14
11.5% HRW	115	493.50	608.50	1		
14% HRS Comparison	130	557.00	687.00			
Blended Discount (ct/bu)	18.86					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	135	557.00	692.00	3	664.88	107.88
11.0% HRW	90	493.50	583.50	1		
14% HRS Comparison	130	557.00	687.00			
Blended Discount (ct/bu)	22.13					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	135	557.00	692.00	4	669.30	112.30
10.0% HRW	85	493.50	578.50	1		
14% HRS Comparison	130	557.00	687.00			
Blended Discount (ct/bu)	17.70					

13% HRS Protein Blend (Western Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	130	557.00	687.00	1.5	655.60	98.60
11.5% HRW	115	493.50	608.50	1		
13% HRS Comparison	120	557.00	677.00			
Blended Discount (ct/bu)	21.40					

13% HRS Protein Blend (Eastern Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	130	557.00	687.00	2	652.50	95.50
11.0% HRW	90	493.50	583.50	1		
13% HRS Comparison	120	557.00	677.00			
Blended Discount (ct/bu)	24.50					

12.25% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
15% HRS	135	557.00	692.00	1	629.58	136.08
10.0% HRW	85	493.50	578.50	1.2		
12.25% HRW Comparison	140	493.50	633.50			
Blended Discount (ct/bu)	3.92					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	130	557.00	687.00	1	618.00	124.50
11.0% HRW	90	493.50	583.50	2		
12.0% HRW Comparison	140	493.50	633.50			
Blended Discount (ct/bu)	15.50					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
13.5% HRS	125	557.00	682.00	1	622.90	129.40
11.0% HRW	90	493.50	583.50	1.5		
12.0% HRW Comparison	140	493.50	633.50			
Blended Discount (ct/bu)	10.60					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	130	557.00	687.00	1	600.75	107.25
11.0% HRW	90	493.50	583.50	5		
11.5% HRW Comparison	115	493.50	608.50			
Blended Discount (ct/bu)	7.75					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	140	493.50	633.50	3	619.75	126.25
10.0% HRW	85	493.50	578.50	1		
11.5% HRW Comparison	115	493.50	608.50			
Blended Discount (ct/bu)	-11.25					

11.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	140	493.50	633.50	1	606.00	112.50
10.0% HRW	85	493.50	578.50	1		
11.0% HRW Comparison	90	493.50	583.50			
Blended Discount (ct/bu)	-22.50					

24-Jan-20

Cascade Commodity Consulting Company

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

US Grain Basis and Flat Price Values FOB Vessel

Month	Futures	CBOT	KCBT	MGE	Matiff Euro/mt	Euro	Corn CBOT	Beans CBOT
Sep-20	U	578.25	508.75	573.00	188.00	1.12	395.75	934.25
Dec-20	Z	586.25	519.25	583.25	190.00	1.12	398.25	944.00
Mar-20	H	573.50	486.00	547.50	195.50	1.11	387.25	902.00
May-20	K	572.50	493.50	557.00	194.75	1.11	392.75	915.75
Jul-20	N	573.00	500.75	565.00	188.00	1.11	397.75	929.50

Basis (ct/bu)		US GULF			Basis (ct/bu)		PNW		
Shipment	Futures	Corn #2 YC	Sorghum	Soybeans	Shipment	Futures	Corn #2 YC	Corn #3 YC	Soybeans
		CBOT					CBOT		
J/F/M	H	70.00	70.00	65.00	J/F/M	H	NA	105.00	95.00
A/M	K	65.00	70.00	65.00	A/M	K	NA	105.00	95.00
J/J	N	63.00	70.00	65.00	J/J	N	NA	105.00	95.00
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
J/F/M	H	180.01	180.01	370.74	J/F/M	H	NA	193.79	366.33
A/M	K	180.21	182.18	355.31	A/M	K	NA	195.95	371.39
J/J	N	181.39	184.14	360.36	J/J	N	NA	197.92	376.44

Cash and Carrying Charges

BNSF Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	135.00	135.00	125.00	125.00	130.00	135.00
Futures ct/bu	486.00	493.50	500.75	508.75	519.25	519.25
Flat Price	621.00	628.50	625.75	633.75	649.25	654.25
Rail Freight	4.05	2.70	2.70		-2.70	-5.41
Delivered Gulf	625.05	631.20	628.45	633.75	646.55	648.84
Cash Carry	Storage Revenue ct/bu					
Feb-Apr	6.15					
Feb-Jun	3.4					
Feb-Aug	8.70					
Feb-Oct	21.49					
Feb-Dec	23.79					
Cash Carry	Monthly Storage Revenue ct/bu					
Feb-Apr	3.07					
Feb-Jun	0.8					
Feb-Aug	1.45					
Feb-Oct	2.69					
Feb-Dec	2.38					

SRW	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	115.00	105.00	75.00	80.00	85.00	90.00
Futures ct/bu	573.50	572.50	573.00	578.25	586.25	586.25
Flat Price	688.50	677.50	648.00	658.25	671.25	676.25
Barge Freight	-57.96	-58.82	-59.69	-61.42	-76.12	-78.72
FOB Shipper	630.55	618.68	588.32	596.84	595.13	597.54
Cash Carry	Storage Revenue ct/bu					
Feb-Apr	-11.87					
Feb-Jun	-42.2					
Feb-Aug	-33.71					
Feb-Oct	-35.42					
Feb-Dec	-33.01					
Cash Carry	Monthly Storage Revenue ct/bu					
Feb-Apr	-5.93					
Feb-Jun	-10.6					
Feb-Aug	-5.62					
Feb-Oct	-4.43					
Feb-Dec	-3.30					

UP Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	135.00	135.00	125.00	125.00	130.00	135.00
Futures ct/bu	486.00	493.50	500.75	508.75	519.25	519.25
Flat Price	621.00	628.50	625.75	633.75	649.25	654.25
Rail Freight	4.05	2.70	2.70	0.68	-1.35	-3.38
Delivered Gulf	625.05	631.20	628.45	634.43	647.90	650.87
Cash Carry	Storage Revenue ct/bu					
Feb-Apr	6.15					
Feb-Jun	3.4					
Feb-Aug	9.37					
Feb-Oct	22.84					
Feb-Dec	25.82					
Cash Carry	Monthly Storage Revenue ct/bu					
Feb-Apr	3.07					
Feb-Jun	0.8					
Feb-Aug	1.56					
Feb-Oct	2.86					
Feb-Dec	2.58					

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	-100	255%	345%	-100
Jul '20	-100	265%	350%	-100
Aug '20		290%	355%	-25
Sep '20		365%	365%	-25
Oct '20	100	440%	440%	50
Nov '20	150	450%	450%	100
Dec '20	200	455%	455%	125
Jan '20	-450	260%	330%	-300
Feb '20	-150	255%	335%	-150
Mar '20	-150	255%	340%	-150
Apr '20	-100	245%	340%	-100
May '20	-100	250%	340%	-100
Cents/Bushel Equivalent				
Jun '20	-2.70	30.60	59.69	-2.70
Jul '20	-2.70	31.80	60.55	-2.70
Aug '20		34.80	61.42	-0.68
Sep '20		43.80	63.15	-0.68
Oct '20	2.70	52.80	76.12	1.35
Nov '20	4.05	54.00	77.85	2.70
Dec '20	5.41	54.60	78.72	3.38
Jan '20	-12.16	31.20	57.09	-8.11
Feb '20	-4.05	30.60	57.96	-4.05
Mar '20	-4.05	30.60	58.82	-4.05
Apr '20	-2.70	29.40	58.82	-2.70
May '20	-2.70	30.00	58.82	-2.70

Corn	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	57.00	55.00	55.00	55.00	50.00	55.00
Futures ct/bu	387.25	392.75	397.75	395.75	398.25	398.25
Flat Price	444.25	447.75	452.75	450.75	448.25	453.25
Barge Freight	-57.96	-58.82	-59.69	-61.42	-76.12	-78.72
FOB Shipper	386.30	388.93	393.07	389.34	372.13	374.54
Cash Carry	Storage Revenue ct/bu					
Feb-Apr	2.63					
Feb-Jun	6.77					
Feb-Aug	3.04					
Feb-Oct	-14.17					
Feb-Dec	-11.76					
Cash Carry	Monthly Storage Revenue ct/bu					
Feb-Apr	1.32					
Feb-Jun	1.69					
Feb-Aug	0.51					
Feb-Oct	-1.77					
Feb-Dec	-1.18					

Soybeans	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	43.00	40.00	40.00	40.00	40.00	40.00
Futures ct/bu	902.00	915.75	929.50	934.25	944.00	938.75
Flat Price	945.00	955.75	969.50	974.25	984.00	978.75
Barge Freight	-57.96	-58.82	-59.69	-61.42	-76.12	-78.72
FOB Shipper	887.05	896.93	909.82	912.84	907.88	900.04
Cash Carry	Storage Revenue ct/bu					
Feb-Apr	9.88					
Feb-Jun	22.77					
Feb-Aug	25.79					
Feb-Oct	20.84					
Feb-Dec	12.99					
Cash Carry	Monthly Storage Revenue ct/bu					
Feb-Apr	4.94					
Feb-Jun	5.69					
Feb-Aug	4.30					
Feb-Oct	2.60					
Feb-Dec	1.30					

24-Jan-20

Cascade Commodity Consulting Company

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

Foreign Basis and Flat Price Values FOB Vessel

Month	Futures	CBOT	KCBT	MGE	Matiff Euro/mt	Euro	\$ AUD	AUW	BWF
Sep-20	U	578.25	508.75	573.00	188.00	1.1185	0.6856	272.75	211.00
Dec-20	Z	586.25	519.25	583.25	190.00	1.1242	0.6868	269.75	215.75
Mar-20	H	573.50	486.00	547.50	195.50	1.1064	0.6829	271.75	233.50
May-20	K	572.50	493.50	557.00	194.75	1.1107	0.6838	272.50	235.00
Jul-20	N	573.00	500.75	565.00	188.00	1.1126	0.6843	272.75	208.25

Basis (ct/bu)		Argentine	S. Australia	S. Australia	W. Aust. APW	W. Aust.	FSU	French	German	Baltic
Shipment	Futures	11.5%	APW 10.5%	AH 11.5%	10.5%	ASW 9%	12.50%	11.50%	12.50%	12.50%
		KCBT	CBOT	CBOT	CBOT	CBOT	Matiff	Matiff	Matiff	Matiff
		Upriver						Rouen		
Jun	N	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-
Feb	H	-	172	193	180	180	12	7.00	8.00	7.00
Mar	H	-	172	193	180	180	14	8.00	10.00	9.00
Apr	K	173	175	196	183	183	16	9.00	11.00	9.50
May	K	187	175	196	183	183	18	10.00	13.00	11.50
Flat Price FOB Vessel (USD/mt)		Argentine	S. Australia	S. Australia	W. Aust. APW	W. Aust.	FSU	French	German	Baltic
Shipment	Futures	11.5%	APW 10.5%	AH 11.5%	10.5%	ASW 9%	12.50%	11.50%	12.50%	12.50%
		CBOT	CBOT	CBOT	CBOT	CBOT	Matiff	Matiff	Matiff	Matiff
Jun	N	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-
Nov	Z	-	-	-	-	-	-	-	-	-
Dec	Z	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-
Feb	H	-	273.75	281.75	276.75	276.75	230.00	224.04	225.14	224.04
Mar	H	-	273.75	281.75	276.75	276.75	232.00	225.14	227.35	226.25
Apr	K	245.00	274.50	282.50	277.50	277.50	234.00	226.29	228.52	226.85
May	K	250.00	274.50	282.50	277.50	277.50	236.00	227.41	230.74	229.07

Basis (ct/bu)		Canada T. B.	St. Law	Vancouver	Vancouver	Vancouver
Shipment	Futures	13.50%	#2, 13.5%	Canada	Canada	Canada
		MGEX	MGEX	#2 13.0%	#2 13.5%	#1 13.8%
				12.5% -15	275 FN	
				-30.00		40.00
Jun	N	-	145.00	115.00	145.00	185.00
Jul	N	-	-	-	-	-
Aug	U	-	-	-	-	-
Sep	U	-	-	-	-	-
Oct	Z	-	-	-	-	-
Nov	Z	-	-	-	-	-
Dec	Z	-	-	-	-	-
Jan	H	-	-	-	-	-
Feb	H	-	-	-	-	-
Mar	H	-	-	-	-	-
Apr	K	-	140.00	115.00	145.00	185.00
May	K	-	143.00	118.00	148.00	188.00
Flat Price FOB Vessel (USD/mt)		Canada T. B.	St. Law	Vancouver	Vancouver	Vancouver
Shipment	Futures	13.00%	#2, 13%	Canada	Canada	Canada
		MGEX	MGEX	#2 13.0%	#2 13.5%	#1 13.8%
Jun	N	-	260.88	249.86	260.88	275.58
Jul	N	-	-	-	-	-
Aug	U	-	-	-	-	-
Sep	U	-	-	-	-	-
Oct	Z	-	-	-	-	-
Nov	Z	-	-	-	-	-
Dec	Z	-	-	-	-	-
Jan	H	-	-	-	-	-
Feb	H	-	-	-	-	-
Mar	H	-	-	-	-	-
Apr	K	-	256.10	246.92	257.94	272.64
May	K	-	257.21	248.02	259.04	273.74

Cascade Commodity Consulting Company

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

24-Jan-20

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)	(23)	(26)	(10)	1	0	-	-	(9)	-	-	-	(6)
Brazil (Fortaleza) (30 kmt)	-	-	-	1	0	-	-	(2)	-	-	-	0
Egypt (Damietta) (60 kmt)	-	-	(6)	1	0	-	-	(21)	-	-	(11)	5
Saudi Arabia (Jeddah) (60 kmt)	(10)	(13)	7	1	0	-	-	(18)	(12)	(12)	(11)	3
Algeria (Algiers) (30 kmt, 3 kmt/day unlo	-	-	-	1	0	-	-	(17)	(15)	(12)	(16)	5
Morocco (Casa Blanca) (30 kmt)	-	-	-	1	0	-	-	(13)	(12)	(10)	(13)	5
Nigeria (Lagos) (40 kmt)	-	-	-	1	0	(3)	-	(12)	(11)	(9)	-	(1)
Kenya (Mombasa) (40 kmt)	-	-	-	1	0	-	-	(19)	(10)	-	-	(10)

Destination Protein/Class FOB	C&F Advantage/Disadvantage															
	Origin															
	S. Aust.	W. Aust.	W. Aust.	W. Aust.	PNW	PNW	PNW	Gulf	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%
	275	283	278	278	239	242	252	262	228	-	-	234	229	227	226	245
Indonesia (Jakarta) (50 kmt)	23	28	23	23	1	4	14	-	0	-	-	-3	-	-	-	11
Brazil (Fortaleza) (30 kmt)	-	-	-	-	-	-	-	-	0	-	-	4	-	-	-	17
Egypt (Damietta) (60 kmt)	-	-	-	-	5	8	-	-	0	-	-	-15	-	-	-13	22
Saudi Arabia (Jeddah) (60 kmt)	36	41	36	36	18	21	31	-	0	-	-	-12	-12	-13	-13	20
Algeria (Algiers) (30 kmt, 3 kmt/day unload)	-	-	-	-	-	-	-	-	0	-	-	-11	-15	-13	-18	22
Morocco (Casa Blanca) (30 kmt)	-	-	-	-	-	-	-	-	0	-	-	-7	-12	-11	-15	22
Nigeria (Lagos) (40 kmt)	-	-	-	-	-	-	-	-	0	-	-	-6	-11	-10	-	16
Kenya (Mombasa) (40 kmt)	-	-	-	-	-	-	-	-	0	-	-	-13	-10	-	-	7

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%
Feb	\$230	\$225	\$224	-	\$228	\$226	\$225	\$224	\$232	\$262
Mar	\$232	\$227	\$226	-	\$228	\$226	\$225	\$225	\$234	\$262
Apr	\$234	\$229	\$227	\$245	\$231	\$229	\$228	\$226	\$236	\$262
May	\$236	\$231	\$229	\$250	\$231	\$229	\$228	\$227	\$238	\$262

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%
Feb	\$277	\$282	\$277	\$236	\$239	\$237	\$249	\$253	-	-
Mar	\$277	\$282	\$277	\$236	\$239	\$238	\$249	\$253	-	-
Apr	\$278	\$283	\$278	\$238	\$242	\$239	\$252	\$256	\$258	\$273
May	\$278	\$283	\$278	\$238	\$242	\$240	\$252	\$256	\$259	\$274

24-Jan-20

Cascade Commodity Consulting Company

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

Price=USD		Spread Analysis		
Delivery Month		H	K	N
Starts		1-Mar	1-May	1-Jul
Ends		1-May	1-Jul	1-Sep
Total Days		61	61	62
Corn Closing Price		387.25	392.75	397.75
Storage rate		0.265	0.265	0.265
Total Storage		16.17	16.17	16.43
Total Interest		2.50	2.53	2.61
Full Carry		18.66	18.70	19.04
Spread Close		-5.50	-5.00	2.00
% Full Carry		29%	27%	-11%
CME W Closing Price		573.50	572.50	573.00
Storage rate		0.165	0.165	0.165
Total Storage		10.07	10.07	10.23
Total Interest		3.70	3.69	3.76
Full Carry		13.76	13.76	13.99
Spread Close		1.00	-0.50	-5.3
% Full Carry		-7%	4%	38%
KCBT Closing Price		486.00	493.50	500.75
Storage rate		0.165	0.165	0.165
Total Storage		10.07	10.07	10.23
Total Interest		3.13	3.18	3.28
Full Carry		13.20	13.25	13.51
Spread Close		-7.50	-7.25	-8.00
% Full Carry		57%	55%	59%
MGEX Closing Price		547.50	557.00	565.00
Storage rate		0.233	0.233	0.233
Total Storage		14.21	14.21	14.45
Total Interest		3.53	3.59	3.70
Full Carry		17.74	17.81	18.15
Spread Close		-9.50	-8.00	-8.00
% Full Carry		54%	45%	44%

VSR INCREASES		H	K	N	U	Z
CME VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
Futures Close Price	Days	573.50	572.50	573.00	578.25	586.25
Base Storage	0.165	10.07	10.07	10.23	15.02	14.85
H-K (increase .10)	61	4.30	6.10	6.20	9.10	9.00
K-N (increase .10)	61		4.30	6.20	9.10	9.00
N-U (increase .10)	62			4.40	9.10	9.00
U-Z (increase .10)	91				7.30	9.00
Z-H (increase .10)	90					7.20
Total Storage		14.37	20.47	27.03	49.62	58.05
Interest Charge	3.81%	3.70	3.69	3.76	5.56	5.58
Full Carry B4 VSR		13.76	13.76	13.99	20.58	20.43
Closing Board Spread		-1.00	0.50	5.25	8.00	6.50
Closing Spread % FC		-7%	4%	38%	39%	32%

VSR INCREASES		H	K	N	U	Z
KCBT VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
Futures Close Price	Days	486.00	493.50	500.75	508.75	519.25
Base Storage	0.165	10.07	10.07	10.23	15.02	14.85
H-K (increase .10)	61	4.30	6.10	6.20	9.10	9.00
K-N (increase .10)	61		4.30	6.20	9.10	9.00
N-U (increase .10)	62			4.40	9.10	9.00
U-Z (increase .10)	91				7.30	9.00
Z-H (increase .10)	90					7.20
Total Storage		14.37	20.47	27.03	49.62	58.05
Interest Charge	3.81%	3.13	3.18	3.28	4.89	4.94
Full Carry B4 VSR		13.20	13.25	13.51	19.91	19.79
Closing Board Spread		7.50	7.25	8.00	10.50	10.25
Closing Spread % FC		57%	55%	59%	53%	52%

VSR DECREASES		H	K	N	U	Z
CME VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
Futures Close Price	Days	573.50	572.50	573.00	578.25	586.25
Base Storage	0.165	10.07	10.07	10.23	15.02	14.85
H-K (decrease .10)	61	*	*	*	*	*
K-N (decrease .10)	61		*	*	*	*
N-U (decrease .10)	62			*	*	*
U-Z (decrease .10)	91				*	*
Z-H (decrease .10)	90					*
Total Storage		10.07	10.07	10.23	15.02	14.85
Interest Charge	3.81%	3.70	3.69	3.76	5.56	5.58
Full Carry B4 VSR		13.76	13.76	13.99	20.58	20.43
Closing Board Spread		-1.00	0.50	5.25	8.00	6.50
Closing Spread % FC		-7%	4%	38%	39%	32%

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

VSR DECREASES		H	K	N	U	Z
KCBT VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
Futures Close Price	Days	486.00	493.50	500.75	508.75	519.25
Base Storage	0.165	10.07	10.07	10.23	15.02	14.85
H-K (decrease .10)	61	*	*	*	*	*
K-N (decrease .10)	61		*	*	*	*
N-U (decrease .10)	62			*	*	*
U-Z (decrease .10)	91				*	*
Z-H (decrease .10)	90					*
Total Storage		10.07	10.07	10.23	15.02	14.85
Interest Charge	3.81%	3.13	3.18	3.28	4.89	4.94
Full Carry B4 VSR		13.20	13.25	13.51	19.91	19.79
Closing Board Spread		7.50	7.25	8.00	10.50	10.25
Closing Spread % FC		57%	55%	59%	53%	52%

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

24-Jan-20

Cascade Commodity Consulting Company

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

Wheat vs Corn Feeding Relationship

	SW Kansas			SE Colorado		Texas Panhandle		North Carolina	
	HRW	Milo	Corn	HRW	Corn	HRW	Corn	SRW	Corn
Basis	-48.00	-60.00	-10.00	-41.00	-4.25	-11.00	45.75	-86.50	76.75
Futures	486.00	387.25	387.25	486.00	387.25	486.00	387.25	573.50	387.25
Flat Price	438.00	327.25	377.25	445.00	383.00	475.00	433.00	487.00	464.00
Flat Price (mt)	160.94	128.83	148.52	163.51	150.78	174.53	170.46	178.94	182.67
Wheat/Corn	108%	87%		108%		102%		98%	

24-Jan-20

Cascade Commodity Consulting Company

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

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
11.0% Protein									
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
Tariff Rate (\$/car)	5887.00	5990.00	5792.00	4454.00	4555.00	4361.00	4457.00	4473.00	4450.00
Tariff Rate (c/bu)	159.11	161.89	156.54	120.38	123.11	117.86	120.46	120.89	120.27
Mileage Houston, TX	688.00	761.00	632.00	688.00	761.00	632.00	-	-	-
Rail Cost (c/bu)	0.00	0.00	0.00	-4.05	-4.05	-4.05	0.00	0.00	0.00
Freight Cost (c/bu)	159.11	161.89	156.54	116.32	119.05	113.81	120.46	120.89	120.27
Delivered Value	160.11	159.89	160.54	117.32	117.05	117.81	121.46	118.89	124.27
Delivered bid (10.5% protein)	120.00	120.00	120.00	120.00	120.00	120.00	122.00	122.00	122.00
Cash vs. Delivery	-40.11	-39.89	-40.54	2.68	2.95	2.19	0.54	3.11	-2.27
# of Days in Storage	31	31	31	31	31	31	31	31	31
Storage Cost	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22	8.22
Futures	508.75	508.75	508.75	508.75	508.75	508.75	508.75	508.75	508.75
Interest Cost	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67	1.67
TTL Est. Carry Cost	9.88	9.88	9.88	9.88	9.88	9.88	9.88	9.88	9.88
Cash vs. Delivery	-49.99	-49.77	-50.42	-7.21	-6.94	-7.69	-9.34	-6.77	-12.15

Cascade Commodity Consulting Company

24-Jan-20

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
Barge Freight	255%	230%	340%	245%	NA	NA	NA
Tarriff	12.00	9.40	17.30	12.00	NA	NA	NA
Barge Freight (c/bu)/ Lakes	30.60	21.62	58.82	29.40	NA	NA	NA
Delivered Value	38.60	49.62	66.82	47.40	8.00	8.00	-2.00
Delivered Gulf / FOB Elevator	120.00	120.00	120.00	120.00	30.00	30.00	30.00
Cash vs. Delivery	81.40	70.38	53.18	72.60	22.00	22.00	32.00
# of Days in Storage	31	31	31	31	31	31	31
Storage Cost	5.12	5.12	5.12	5.12	5.12	5.12	5.12
Futures	573.50	573.50	573.50	573.50	573.50	573.50	573.50
Interest Cost	1.88	1.88	1.88	1.88	1.88	1.88	1.88
TTL Est. Carry Cost	6.99	6.99	6.99	6.99	6.99	6.99	6.99
Cash vs. Delivery	74.41	63.39	46.19	65.61	15.01	15.01	25.01

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

24-Jan-20

Cascade Commodity Consulting Company

MGEX Delivery Calculations

Price=USD	Delivered Chicago Gateway		Duluth Replacement*
	Duluth (BNSF) 110 cars	Duluth (CP) Single/25 cars	Duluth (CP) DETS (FOB Dul/Sup)*
13.5% Protein			
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	15.000	15.000	15.000
Tariff Rate	2408.00	2299.00	N/A
Tariff Rate (c/bu)	65.08	62.14	0.00
Rail Cost	5.41	3.38	N/A
Freight Cost (c/bu) (Dul -18.25)	70.49	65.51	-35.00
Delivered Value	85.49	80.51	45.00
Del. Chicago Gateway Bid (No FN)	80.00	80.00	80.00
Cash vs. Delivery	-5.49	-0.51	30.00
# of Days in Storage	31.00	31.00	31.00
Storage Cost	7.00	7.00	7.00
Futures	583.25	583.25	583.25
Interest Cost	1.91	1.91	N/A
TTL Est. Carry Cost	8.91	8.91	N/A
Cash vs. Delivery	-14.40	-9.43	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

Illinois River	Zone 1	Zone 2	Zone 3	Zone 4
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
Barge Rate	455%	455%	455%	455%
Tarriff	16.20	14.70	14.25	13.50
Barge Freight (ct/bu)	73.71	66.89	64.84	61.43
Delivered Value	79.71	74.89	73.34	70.43
Delivered Bid	55.00	55.00	55.00	55.00
Cash vs. Delivery	-24.71	-19.89	-18.34	-15.43
# of Days in Storage	31.00	31.00	31.00	31.00
Storage Cost	5.00	5.00	5.00	5.00
Futures	398.25	398.25	398.25	398.25
Interest Cost	1.305	1.305	1.305	1.305
TTL Est. Carry Cost	6.31	6.31	6.31	6.31
Cash vs. Delivery	-31.02	-26.19	-24.64	-21.73

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

Deliverable Stocks as of January 17, 2020				
Date	17-Jan	Wk Ago	Change	YR Ago
KCBT	89,414	90,719	(1,305)	109,461
CBOT	33,455	34,424	(969)	66,947
MGEX	21,541	21,786	(245)	17,063

KCBT Deliverable Wheat Stocks				
Date	17-Jan	Wk Ago	Change	YR Ago
Hutchinson	24,082	24,437	(355)	27,030
KC	11,413	11,574	(161)	11,046
Salina	26,534	26,332	202	32,511
Wichita	27,385	28,376	(991)	38,874
Total	89,414	90,719	(1,305)	109,461

CBOT Deliverable & Non-Deliverable Wheat Stocks				
Date	17-Jan	Wk Ago	Change	YR Ago
Chicago	3,077	3,374	(297)	7,623
Miss. River	2,604	3,119	(515)	10,837
NW Ohio	8,421	8,412	9	10,138
Ohio River	1,405	1,480	(75)	9,264
St. Louis	1,990	1,790	200	2,293
Toledo	15,958	16,249	(291)	26,792
Total	33,455	34,424	(969)	66,947
Non-Deliver	6,670	5,877	793	9,254
Net-Deliver	26,785	28,547	(1,762)	57,693

MGEX Deliverable Wheat Stocks				
Date	17-Jan	Wk Ago	Change	YR Ago
Mpls	3,210	3,238	(28)	1,568
Duluth	18,331	18,548	(217)	15,495
Total	21,541	21,786	(245)	17,063

1/8/2020

CHICAGO SRW WHEAT VSR

Variable Storage Rate March 2020 - May 2020 Calculation Period

March 2020 First Delivery Day 3/2/2020
 May 2020 First Delivery Day 5/1/2020
 Number of Carry Days 60
 Storage Rate Used in Calculation \$0.00165/bu/day
 Running Average Percent of Full Carry 19.06%

Date	Mar 2020 Contract Price	May 2020 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Mar-May 2020 Spread	Mar-May Spread as % of Full Carry
12/19/2019	\$5.4525	\$5.4875	3.92775	0.134693	0.0350	26.0%
12/20/2019	\$5.4225	\$5.4600	3.93475	0.134560	0.0375	27.9%
12/23/2019	\$5.3950	\$5.4375	3.94663	0.134487	0.0425	31.6%
12/24/2019	\$5.4100	\$5.4475	3.96050	0.134711	0.0375	27.8%
12/26/2019	\$5.4900	\$5.5175	3.96050	0.135239	0.0275	20.3%
12/27/2019	\$5.5625	\$5.5850	3.94463	0.135570	0.0225	16.6%
12/30/2019	\$5.5600	\$5.5900	3.90938	0.135227	0.0300	22.2%
12/31/2019	\$5.5875	\$5.6175	3.90838	0.135397	0.0300	22.2%
1/2/2020	\$5.6025	\$5.6325	3.90025	0.135419	0.0300	22.2%
1/3/2020	\$5.5450	\$5.5775	3.89288	0.134977	0.0325	24.1%
1/6/2020	\$5.5000	\$5.5375	3.89425	0.134697	0.0375	27.8%
1/7/2020	\$5.5025	\$5.5325	3.87800	0.134564	0.0300	22.3%
1/8/2020	\$5.5275	\$5.5625	3.83400	0.134321	0.0350	26.1%
1/9/2020	\$5.6225	\$5.6525	3.84788	0.135058	0.0300	22.2%
1/10/2020	\$5.6450	\$5.6650	3.83775	0.135107	0.0200	14.8%
1/13/2020	\$5.6225	\$5.6475	3.83125	0.134902	0.0250	18.5%
1/14/2020	\$5.6850	\$5.7025	3.84263	0.135409	0.0175	12.9%
1/15/2020	\$5.7325	\$5.7400	3.83613	0.135651	0.0075	5.5%
1/16/2020	\$5.6525	\$5.6625	3.82663	0.135050	0.0100	7.4%
1/17/2020	\$5.7050	\$5.7125	3.81913	0.135314	0.0075	5.5%
1/21/2020	\$5.8150	\$5.8100	3.80625	0.135889	-0.0050	-3.7%
1/22/2020						
1/23/2020						
1/24/2020						
1/27/2020						
1/28/2020						
1/29/2020						
1/30/2020						
1/31/2020						
2/3/2020						
2/4/2020						
2/5/2020						
2/6/2020						
2/7/2020						
2/10/2020						
2/11/2020						
2/12/2020						
2/13/2020						
2/14/2020						
2/18/2020						
2/19/2020						
2/20/2020						
2/21/2020						

Results:

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

If the Running Average Percent of Full Carry on 02/21/2020 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00265 on 03/19/2020

If the Running Average Percent of Full Carry on 02/21/2020 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 03/19/2020

If the Running Average Percent of Full Carry on 02/21/2020 is 50% or Less, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 03/19/2020

1/24/2020

KANSAS CITY HRW WHEAT VSR

Variable Storage Rate March 2020 - May 2020 Calculation Period

March 2020 First Delivery Day 3/2/2020
 May 2020 First Delivery Day 5/1/2020
 Number of Carry Days 60
 Storage Rate Used in Calculation \$0.00165/bu/day
 Running Average Percent of Full Carry 60.66%

Date	Mar 2020 Contract Price	May 2020 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Mar-May2020 Spread	Mar-May Spread as % of Full Carry
12/19/2019	\$4.6050	\$4.6875	3.92775	0.129145	0.0825	63.9%
12/20/2019	\$4.6225	\$4.7025	3.93475	0.129314	0.0800	61.9%
12/23/2019	\$4.5850	\$4.6675	3.94663	0.129159	0.0825	63.9%
12/24/2019	\$4.6050	\$4.6875	3.96050	0.129397	0.0825	63.8%
12/26/2019	\$4.7050	\$4.7900	3.96050	0.130057	0.0850	65.4%
12/27/2019	\$4.7975	\$4.8800	3.94463	0.130541	0.0825	63.2%
12/30/2019	\$4.8050	\$4.8900	3.90938	0.130308	0.0850	65.2%
12/31/2019	\$4.8600	\$4.9425	3.90838	0.130658	0.0825	63.1%
1/2/2020	\$4.8525	\$4.9375	3.90025	0.130543	0.0850	65.1%
1/3/2020	\$4.7500	\$4.8275	3.89288	0.129819	0.0775	59.7%
1/6/2020	\$4.7725	\$4.8525	3.89425	0.129976	0.0800	61.6%
1/7/2020	\$4.7500	\$4.8300	3.87800	0.129701	0.0800	61.7%
1/8/2020	\$4.8000	\$4.8775	3.83400	0.129672	0.0775	59.8%
1/9/2020	\$4.9025	\$4.9775	3.84788	0.130440	0.0750	57.5%
1/10/2020	\$4.9475	\$5.0225	3.83775	0.130645	0.0750	57.4%
1/13/2020	\$4.9275	\$5.0050	3.83125	0.130464	0.0775	59.4%
1/14/2020	\$4.9700	\$5.0450	3.84263	0.130830	0.0750	57.3%
1/15/2020	\$4.9675	\$5.0400	3.83613	0.130760	0.0725	55.4%
1/16/2020	\$4.8475	\$4.9225	3.82663	0.129916	0.0750	57.7%
1/17/2020	\$4.9425	\$5.0150	3.81913	0.130460	0.0725	55.6%
1/21/2020	\$5.0000	\$5.0725	3.80625	0.130719	0.0725	55.5%
1/22/2020						
1/23/2020						
1/24/2020						
1/27/2020						
1/28/2020						
1/29/2020						
1/30/2020						
1/31/2020						
2/3/2020						
2/4/2020						
2/5/2020						
2/6/2020						
2/7/2020						
2/10/2020						
2/11/2020						
2/12/2020						
2/13/2020						
2/14/2020						
2/18/2020						
2/19/2020						
2/20/2020						
2/21/2020						

VSR trigger	98.46%
Spread	0.128701

Results:

Current Maximum Premium (Storage) Charge: \$0.00165/bu/day
 If the Running Average Percent of Full Carry on 02/21/2020 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00265 on 03/19/2020
 If the Running Average Percent of Full Carry on 02/21/2020 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 03/19/2020
 If the Running Average Percent of Full Carry on 02/21/2020 is 50% or Less, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 03/19/2020

Hastings, NE	Gulf	Gulf	*KC DOM	Gulf
Basis KWH	\$ 1.40	\$ 1.40	\$ 0.90	\$ 1.40
Shuttle /DET Freight	\$ 1.32	\$ 1.32	\$ 0.12	\$ 1.32
FOB elev	\$ 0.08	\$ 0.08	\$ 1.02	\$ 0.08
Rate	Chicago	St. Louis	St. Louis	Memphis
DET	\$ 1.16	\$ 1.16		\$ 1.23
Single car	\$ 1.28	\$ 1.32		\$ 1.38
Shuttle Rate	\$ 1.07	\$ 1.07		\$ 1.12
Del DET train	\$ 1.23	\$ 1.24		\$ 1.30
Del Single car	\$ 1.36	\$ 1.40		\$ 1.46
Del Shuttle train	\$ 1.15	\$ 1.15		\$ 1.19
KWH-WH spread	\$ (0.88)	\$ (0.88)	\$ (0.88)	\$ (0.88)
Basis WHO	\$ 0.36	\$ 0.27	\$ 0.15	\$ 0.43
Delivery	\$ 0.06	\$ 0.16	\$ 0.16	\$ 0.26
difference	\$ 0.30	\$ 0.11	\$ (0.02)	\$ 0.17

*KC domestic is HRW delivered to ST. LOUIS vs stopping WH

The KC ord bid is an estimate, there is no bid.