

DATE 18-Oct-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	3-Month LIBOR
Sep-20	U	549.75	472.25	580.75	183.25	1.140	406.50	0.6904	973.50	246.50	203.50	2.00
Dec-19	Z	532.25	433.75	544.50	181.25	1.120	391.00	0.6864	934.00	243.25	209.75	
Mar-20	H	537.00	446.00	558.25	184.25	1.127	402.75	0.6879	959.25	244.50	214.50	
May-20	K	541.50	454.50	567.25	185.75	1.134	409.50	0.6892	967.50	245.75	216.25	
Jul-20	N	544.00	463.00	574.25	183.25	1.140	415.25	0.6904	976.00	246.25	200.75	

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%+8			0.00		8.00
Shipment	Futures	BASIS NOLA									
Jun	N	-	-	-	-	-	-	-	-	-	-
Jul	N	-	-	-	-	-	-	-	-	-	-
Aug	U	-	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	130.00	135.00	155.00	175.00	165.00	170.00	110.00	-	-	-
Dec	Z	130.00	135.00	155.00	175.00	170.00	175.00	115.00	-	-	-
Jan	H	130.00	135.00	155.00	175.00	180.00	185.00	110.00	-	-	-
Feb	H	130.00	135.00	155.00	175.00	185.00	190.00	115.00	-	-	-
Mar	H	130.00	135.00	155.00	175.00	185.00	190.00	115.00	-	-	-
Apr	K	125.00	130.00	150.00	170.00	-	-	-	-	-	-
May	K	125.00	130.00	150.00	170.00	-	-	-	-	-	-
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	-	-	-	-	-	-	-	-	-	-
Sep	U	-	-	-	-	-	-	-	-	-	-
Oct	Z	-	-	-	-	-	-	-	-	-	-
Nov	Z	207.14	208.98	216.33	223.68	260.70	262.53	235.99	-	-	-
Dec	Z	207.14	208.98	216.33	223.68	262.53	264.37	237.82	-	-	-
Jan	H	211.64	213.48	220.83	228.18	271.26	273.10	237.73	-	-	-
Feb	H	211.64	213.48	220.83	228.18	273.10	274.93	239.57	-	-	-
Mar	H	211.64	213.48	220.83	228.18	273.10	274.93	239.57	-	-	-
Apr	K	212.93	214.77	222.12	229.46	-	-	-	-	-	-
May	K	212.93	214.77	222.12	229.46	-	-	-	-	-	-

PNW CASH BASIS FOB (S&T+S&F) US c/bu										CANADA CASH BASIS		
Basis (ct/bu)		HRW				NS 50 DHV, 300 FN			SWW	Vancouver Canada	Vancouver Canada	
New Crop		10.50%	11.0%	11.5%	12.0%	13%	13.5%	14.0%	Max 10.5% pro			
Old Crop		-15.00	-10.00	10.00		-15.00	-10.00	+15 14.5%		#2 13.5%	#2 13.8%	
Shipment		50 ct/bu prem DNS										
Jun	N	-	-	-	-	-	-	-	-	-	-	
Jul	N	-	-	-	-	-	-	-	-	-	-	
Aug	U	-	-	-	-	-	-	-	-	-	-	
Sep	U	-	-	-	-	-	-	-	-	-	-	
Oct	Z	-	-	-	-	-	-	-	-	-	-	
Nov	Z	170.00	175.00	185.00	195.00	160.00	165.00	175.00	83	-	-	
Dec	Z	170.00	175.00	185.00	195.00	160.00	165.00	175.00	88	135.00	165.00	
Jan	H	170.00	175.00	185.00	195.00	160.00	165.00	175.00	88	120.00	150.00	
Feb	H	170.00	175.00	185.00	195.00	160.00	165.00	175.00	93	125.00	155.00	
Mar	H	170.00	175.00	185.00	195.00	160.00	165.00	175.00	103	125.00	155.00	
Apr	K	-	-	-	-	-	-	-	-	-	-	
May	K	-	-	-	-	-	-	-	-	-	-	
Flat Price FOB Vessel (USD/mt)		HRW				HRS			SWW	Vancouver Canada	Vancouver Canada	
Shipment		10.50%	11.0%	11.5%	12.0%	13%	13.5%	14%		#2 13.5%	#2 13.8%	
Jun	N	-	-	-	-	-	-	-	-	-	-	
Jul	N	-	-	-	-	-	-	-	-	-	-	
Aug	U	-	-	-	-	-	-	-	-	-	-	
Sep	U	-	-	-	-	-	-	-	-	-	-	
Oct	Z	-	-	-	-	-	-	-	-	-	-	
Nov	Z	221.84	223.68	227.35	231.03	258.86	260.70	264.37	226	-	-	
Dec	Z	221.84	223.68	227.35	231.03	258.86	260.70	264.37	228	249.67	260.70	
Jan	H	226.34	228.18	231.85	235.53	263.91	265.75	269.42	230	249.21	260.24	
Feb	H	226.34	228.18	231.85	235.53	263.91	265.75	269.42	231	251.05	262.07	
Mar	H	226.34	228.18	231.85	235.53	263.91	265.75	269.42	235	251.05	262.07	
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%	Nov/Dec	DNS 14%	HRW 14%	DNS 13.5%	HRW 13%	DNS 13%	HRW 12%
Basis	145.00	215.00	155.00	215.00	155.00	145.00	Basis	135.00	210.00	130.00	205.00	125.00	160.00
Futures	544.50	433.75	544.50	433.75	544.50	433.75	Futures	544.50	433.75	544.50	433.75	544.50	433.75
Del Chicago	689.50	648.75	699.50	648.75	699.50	578.75	Del Chicago	679.50	643.75	674.50	638.75	669.50	593.75

Spring Wheat + HRW Milling Blend						
14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	145	544.50	689.50	2.5	655.00	110.50
11.5% HRW	135	433.75	568.75	1		
14% HRS Comparison	135	544.50	679.50			
Blended Discount (ct/bu)	24.50					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	145	544.50	689.50	3	653.06	108.56
11.0% HRW	110	433.75	543.75	1		
14% HRS Comparison	135	544.50	679.50			
Blended Discount (ct/bu)	26.44					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	145	544.50	689.50	4	658.35	113.85
10.0% HRW	100	433.75	533.75	1		
14% HRS Comparison	135	544.50	679.50			
Blended Discount (ct/bu)	21.15					

13% HRS Protein Blend (Western Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	135	544.50	679.50	1.5	635.20	90.70
11.5% HRW	135	433.75	568.75	1		
13% HRS Comparison	125	544.50	669.50			
Blended Discount (ct/bu)	34.30					

13% HRS Protein Blend (Eastern Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	135	544.50	679.50	2	634.25	89.75
11.0% HRW	110	433.75	543.75	1		
13% HRS Comparison	125	544.50	669.50			
Blended Discount (ct/bu)	35.25					

12.25% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
15% HRS	145	544.50	689.50	1	603.84	170.09
10.0% HRW	100	433.75	533.75	1.2		
12.25% HRW Comparison	165	433.75	598.75			
Blended Discount (ct/bu)	-5.09					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	135	544.50	679.50	1	589.00	155.25
11.0% HRW	110	433.75	543.75	2		
12.0% HRW Comparison	160	433.75	593.75			
Blended Discount (ct/bu)	4.75					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
13.5% HRS	130	544.50	674.50	1	596.05	162.30
11.0% HRW	110	433.75	543.75	1.5		
12.0% HRW Comparison	160	433.75	593.75			
Blended Discount (ct/bu)	-2.30					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	135	544.50	679.50	1	566.38	132.63
11.0% HRW	110	433.75	543.75	5		
11.5% HRW Comparison	135	433.75	568.75			
Blended Discount (ct/bu)	2.38					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	160	433.75	593.75	3	578.75	145.00
10.0% HRW	100	433.75	533.75	1		
11.5% HRW Comparison	135	433.75	568.75			
Blended Discount (ct/bu)	-10.00					

11.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	160	433.75	593.75	1	563.75	130.00
10.0% HRW	100	433.75	533.75	1		
11.0% HRW Comparison	110	433.75	543.75			
Blended Discount (ct/bu)	-20.00					

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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-20	U	549.75	472.25	580.75	183.25	1.14	406.50	973.50
Dec-19	Z	532.25	433.75	544.50	181.25	1.12	391.00	934.00
Mar-20	H	537.00	446.00	558.25	184.25	1.13	402.75	959.25
May-20	K	541.50	454.50	567.25	185.75	1.13	409.50	967.50
Jul-20	N	544.00	463.00	574.25	183.25	1.14	415.25	976.00

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		
Nov/Dec	Z	55.00	100.00	45.00	Nov/Dec	Z	95.00	95.00	90.00
J/F/M	H	55.00	100.00	45.00	J/F/M	H	95.00	95.00	90.00
A/M	K	55.00	100.00	45.00	A/M	K	95.00	95.00	90.00
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
Nov/Dec	Z	175.58	193.30	359.72	Nov/Dec	Z	191.33	191.33	376.26
J/F/M	H	180.21	197.92	369.00	J/F/M	H	195.95	195.95	385.53
A/M	K	182.86	200.58	372.03	A/M	K	198.61	198.61	388.56

Cash and Carrying Charges

BNSF Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Oct	Dec	Feb	Apr	Jun	Aug
Basis ct/bu	130.00	130.00	130.00	130.00	120.00	120.00
Futures ct/bu	433.75	433.75	446.00	454.50	463.00	472.25
Flat Price	563.75	563.75	576.00	584.50	583.00	592.25
Rail Freight	-2.70	2.03	-8.11	1.35	1.35	0.68
Delivered Gulf	561.05	565.78	567.89	585.85	584.35	592.93
Cash Carry	Storage Revenue ct/bu					
Oct-Dec	4.73					
Oct-Feb	6.8					
Oct-Apr	24.80					
Oct-Jun	23.30					
Oct-Aug	31.88					
Cash Carry	Monthly Storage Revenue ct/bu					
Oct-Dec	2.36					
Oct-Feb	1.7					
Oct-Apr	4.13					
Oct-Jun	2.91					
Oct-Aug	3.19					

SRW	Oct	Dec	Feb	Apr	Jun	Aug
Basis ct/bu	65.00	85.00	80.00	80.00	60.00	65.00
Futures ct/bu	532.25	532.25	537.00	541.50	544.00	549.75
Flat Price	597.25	617.25	617.00	621.50	604.00	614.75
Barge Freight	-67.47	-63.15	-63.15	-61.42	-59.69	-60.55
FOB Shipper	529.78	554.11	553.86	560.09	544.32	554.20
Cash Carry	Storage Revenue ct/bu					
Oct-Dec	24.33					
Oct-Feb	24.1					
Oct-Apr	30.31					
Oct-Jun	14.54					
Oct-Aug	24.42					
Cash Carry	Monthly Storage Revenue ct/bu					
Oct-Dec	12.16					
Oct-Feb	6.0					
Oct-Apr	5.05					
Oct-Jun	1.82					
Oct-Aug	2.44					

UP Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Oct	Dec	Feb	Apr	Jun	Aug
Basis ct/bu	130.00	130.00	130.00	130.00	120.00	120.00
Futures ct/bu	433.75	433.75	446.00	454.50	463.00	472.25
Flat Price	563.75	563.75	576.00	584.50	583.00	592.25
Rail Freight	4.05	4.05	2.03	2.03	2.70	2.70
Delivered Gulf	567.80	567.80	578.03	586.53	585.70	594.95
Cash Carry	Storage Revenue ct/bu					
Oct-Dec	10.2					
Oct-Feb	18.72					
Oct-Apr	17.90					
Oct-Jun	27.15					
Oct-Aug	27.15					
Cash Carry	Monthly Storage Revenue ct/bu					
Oct-Dec	2.6					
Oct-Feb	3.12					
Oct-Apr	2.24					
Oct-Jun	2.24					
Oct-Aug	2.71					

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	285%	345%	-100
Jul '20	-50	285%	345%	-100
Aug '20	-25	290%	350%	-100
Sep '20	-25	295%	355%	-50
Oct '19	100	415%	390%	-150
Nov '19	-75	350%	375%	-150
Dec '19	-75	315%	365%	-150
Jan '20	300	315%	370%	-75
Feb '20	300	315%	365%	-75
Mar '20	300	315%	365%	-75
Apr '20	-50	290%	355%	-75
May '20	-50	290%	350%	-75
Cents/Bushel Equivalent				
Jun '20	-1.35	34.20	59.69	-2.70
Jul '20	-1.35	34.20	59.69	-2.70
Aug '20	-0.68	34.80	60.55	-2.70
Sep '20	-0.68	35.40	61.42	-1.35
Oct '19	2.70	49.80	67.47	-4.05
Nov '19	-2.03	42.00	64.88	-4.05
Dec '19	-2.03	37.80	63.15	-4.05
Jan '20	8.11	37.80	64.01	-2.03
Feb '20	8.11	37.80	63.15	-2.03
Mar '20	8.11	37.80	63.15	-2.03
Apr '20	-1.35	34.80	61.42	-2.03
May '20	-1.35	34.80	60.55	-2.03

Corn	Oct	Dec	Feb	Apr	Jun	Aug
Basis ct/bu	37.00	52.00	50.00	50.00	50.00	50.00
Futures ct/bu	391.00	391.00	402.75	409.50	415.25	406.50
Flat Price	428.00	443.00	452.75	459.50	465.25	456.50
Barge Freight	-67.47	-63.15	-63.15	-61.42	-59.69	-60.55
FOB Shipper	360.53	379.86	389.61	398.09	405.57	395.95
Cash Carry	Storage Revenue ct/bu					
Oct-Dec	19.33					
Oct-Feb	29.08					
Oct-Apr	37.56					
Oct-Jun	45.04					
Oct-Aug	35.42					
Cash Carry	Monthly Storage Revenue ct/bu					
Oct-Dec	9.66					
Oct-Feb	7.27					
Oct-Apr	6.26					
Oct-Jun	5.63					
Oct-Aug	3.54					

Soybeans	Oct	Dec	Feb	Apr	Jun	Aug
Basis ct/bu	34.00	40.00	31.00	30.00	30.00	30.00
Futures ct/bu	934.00	947.50	959.25	967.50	976.00	973.50
Flat Price	968.00	987.50	990.25	997.50	1006.00	1003.50
Barge Freight	-67.47	-63.15	-63.15	-61.42	-59.69	-60.55
FOB Shipper	900.53	924.36	927.11	936.09	946.32	942.95
Cash Carry	Storage Revenue ct/bu					
Oct-Dec	23.83					
Oct-Feb	26.58					
Oct-Apr	35.56					
Oct-Jun	45.79					
Oct-Aug	42.42					
Cash Carry	Monthly Storage Revenue ct/bu					
Oct-Dec	11.91					
Oct-Feb	6.64					
Oct-Apr	5.93					
Oct-Jun	5.72					
Oct-Aug	4.24					

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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-20	U	549.75	472.25	580.75	183.25	1.1397	0.6904	246.50	203.50
Dec-19	Z	532.25	433.75	544.50	181.25	1.1204	0.6864	243.25	209.75
Mar-20	H	537.00	446.00	558.25	184.25	1.1274	0.6879	244.50	214.50
May-20	K	541.50	454.50	567.25	185.75	1.1337	0.6892	245.75	216.25
Jul-20	N	544.00	463.00	574.25	183.25	1.1397	0.6904	246.25	200.75

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	-	-	-	-	-	3	-	2.00	-1.00
Dec	Z	78	149	168	130	116	5	1.00	4.00	1.00
Jan	H	74	147	167	128	115	4	-2.00	2.00	-1.00
Feb	H	79	147	167	128	115	6	-1.00	4.00	1.00
Mar	H	85	147	167	128	115	9	-	6.00	3.00
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%	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	-	-	-	-	-	206.00	203.07	205.31	201.95
Dec	Z	188.00	250.25	257.25	243.25	238.25	209.00	204.19	207.55	204.19
Jan	H	191.00	251.50	258.50	244.50	239.50	212.00	205.46	209.97	206.59
Feb	H	193.00	251.50	258.50	244.50	239.50	215.00	206.59	212.22	208.84
Mar	H	195.00	251.50	258.50	244.50	239.50	218.00	207.71	214.48	211.10
Apr	K	-	-	-	-	-	-	-	-	-
May	K	-	-	-	-	-	-	-	-	-

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%	#2 13.8%
				12.5% -10		
				-15.00		30.00
Jun	N	-	-	-	-	-
Jul	N	-	-	-	-	-
Aug	U	-	-	-	-	-
Sep	U	-	-	-	-	-
Oct	Z	-	-	-	-	-
Nov	Z	-	-	-	-	-
Dec	Z	-	125.00	120.00	135.00	165.00
Jan	H	-	-	105.00	120.00	150.00
Feb	H	-	-	110.00	125.00	155.00
Mar	H	-	-	110.00	125.00	155.00
Apr	K	-	-	-	-	-
May	N	-	-	-	-	-
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%	#2 13.8%
Jun	N	-	-	-	-	-
Jul	N	-	-	-	-	-
Aug	U	-	-	-	-	-
Sep	U	-	-	-	-	-
Oct	Z	-	-	-	-	-
Nov	Z	-	-	-	-	-
Dec	Z	-	246.00	244.16	249.67	260.70
Jan	H	-	-	243.70	249.21	260.24
Feb	H	-	-	245.54	251.05	262.07
Mar	H	-	-	245.54	251.05	262.07
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)	(33)	(21)	1	0	(24)	1	(10)	(5)	(5)	(6)	(11)
Brazil (Fortaleza) (30 kmt)	16	14	5	1	0	2	5	2	1	1	(1)	(1)
Egypt (Damietta) (60 kmt)	4	1	7	1	0	4	0	(12)	(6)	(6)	(7)	2
Saudi Arabia (Jeddah) (60 kmt)	(9)	(12)	(1)	1	0	(4)	1	(11)	(5)	(5)	(6)	-
Algeria (Algiers) (30 kmt, 3 kmt/day unlo)	-	-	-	1	0	-	-	-	(6)	(6)	(8)	8
Morocco (Casa Blanca) (30 kmt)	-	-	-	1	0	-	-	(6)	(6)	(6)	(9)	7
Nigeria (Lagos) (40 kmt)	(1)	(3)	4	1	0	1	3	1	0	0	(2)	1
Kenya (Mombasa) (40 kmt)	(15)	(17)	4	1	0	1	2	(6)	(3)	(3)	(5)	(3)

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%
	250	257	243	238	226	227	261	236	209	250	246	206	205	202	203	188
Indonesia (Jakarta) (50 kmt)	11	15	1	-4	-4	-3	31	28	0	17	38	-13	-9	-12	-12	-32
Brazil (Fortaleza) (30 kmt)								28	0	43	42	-1				-22
Egypt (Damietta) (60 kmt)					24	25		28	0			-15	-10	-13	-13	-19
Saudi Arabia (Jeddah) (60 kmt)	32	36	22	17	16	17	51		0	37	38	-14	-9	-12		
Algeria (Algiers) (30 kmt, 3 kmt/day unload)									0				-10	-13	-14	-13
Morocco (Casa Blanca) (30 kmt)									0			-9	-10	-13	-15	-14
Nigeria (Lagos) (40 kmt)	40	45	31	26					0	42	40	-2	-4	-7		-20
Kenya (Mombasa) (40 kmt)	26	31	17	12					0	42	39	-9	-7	-10		-24

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%
Nov	\$206	\$205	\$202	-	\$209	\$207	\$206	\$203	\$201	\$236
Dec	\$209	\$208	\$204	\$188	\$209	\$207	\$206	\$204	\$202	\$238
Jan	\$212	\$210	\$207	\$191	\$213	\$212	\$211	\$205	\$204	\$238
Feb	\$215	\$212	\$209	\$193	\$213	\$212	\$211	\$207	\$206	\$240

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%
Nov	-	-	-	\$222	\$227	\$226	\$261	\$264	-	-
Dec	\$243	\$257	\$238	\$222	\$227	\$228	\$261	\$264	\$250	\$261
Jan	\$245	\$259	\$240	\$226	\$232	\$230	\$266	\$269	\$249	\$260
Feb	\$245	\$259	\$240	\$226	\$232	\$231	\$266	\$269	\$251	\$262

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Price=USD

Delivery Month	Spread Analysis		
	Z	H	K
Starts	1-Dec	1-Mar	1-May
Ends	1-Mar	1-May	1-Jul
Total Days	92	62	62
Corn Closing Price	391.00	402.75	409.50
Storage rate	0.265	0.265	0.265
Total Storage	24.38	16.43	16.43
Total Interest	4.00	2.77	2.82
Full Carry	28.38	19.20	19.25
Spread Close	-11.75	-6.75	-5.75
% Full Carry	41%	35%	30%
CME W Closing Price	532.25	537.00	541.50
Storage rate	0.165	0.165	0.165
Total Storage	15.18	10.23	10.23
Total Interest	5.44	3.70	3.73
Full Carry	20.62	13.93	13.96
Spread Close	-4.75	-4.50	-2.5
% Full Carry	23%	32%	18%
KCBT Closing Price	433.75	446.00	454.50
Storage rate	0.265	0.265	0.265
Total Storage	24.38	16.43	16.43
Total Interest	4.43	3.07	3.13
Full Carry	28.81	19.50	19.56
Spread Close	-12.25	-8.50	-8.50
% Full Carry	43%	44%	43%
MGEX Closing Price	544.50	558.25	567.25
Storage rate	0.233	0.233	0.233
Total Storage	21.44	14.45	14.45
Total Interest	5.57	3.85	3.91
Full Carry	27.00	18.29	18.35
Spread Close	-13.75	-9.00	-7.00
% Full Carry	51%	49%	38%

VSR INCREASES		Z	H	K	N	U
CME VSR (ct/bu)	Spread	Z-H	H-K	K-N	N-U	U-Z
Futures Close Price	Days	532.25	537.00	541.50	544.00	549.75
Base Storage	0.165	15.18	10.23	10.23	10.40	15.18
Z-H (increase .10)	92	7.40	6.20	6.20	6.30	9.20
H-K (increase .10)	62	4.40	6.20	6.30	9.20	
K-N (increase .10)	62	4.40	6.30	9.20		
N-U (increase .10)	63	4.50	9.20			
U-Z (increase .10)	92	7.40				
Total Storage		22.58	20.83	27.03	33.80	59.38
Interest Charge	4.00%	5.44	3.70	3.73	3.81	5.62
Full Carry B4 VSR		20.62	13.93	13.96	14.20	20.80
Closing Board Spread		4.75	4.50	2.50	5.75	10.00
Closing Spread % FC		23%	32%	18%	40%	48%

VSR INCREASES		Z	H	K	N	U
KCBT VSR (ct/bu)	Spread	Z-H	H-K	K-N	N-U	U-Z
Futures Close Price	Days	433.75	446.00	454.50	463.00	472.25
Base Storage	0.265	24.38	16.43	16.43	16.70	24.38
Z-H (increase .10)	92	7.40	6.20	6.20	6.30	9.20
H-K (increase .10)	62	4.40	6.20	6.30	9.20	
K-N (increase .10)	62	4.40	6.30	9.20		
N-U (increase .10)	63	4.50	9.20			
U-Z (increase .10)	92	7.40				
Total Storage		31.78	27.03	33.23	40.10	68.58
Interest Charge	4.00%	4.43	3.07	3.13	3.24	4.83
Full Carry B4 VSR		28.81	19.50	19.56	19.94	29.21
Closing Board Spread		12.25	8.50	8.50	9.25	12.50
Closing Spread % FC		43%	44%	43%	46%	43%

VSR DECREASES		Z	H	K	N	U
CME VSR (ct/bu)	Spread	Z-H	H-K	K-N	N-U	U-Z
Futures Close Price	Days	532.25	537.00	541.50	544.00	549.75
Base Storage	0.165	15.18	10.23	10.23	10.40	15.18
Z-H (increase .10)	92	*	*	*	*	*
H-K (increase .10)	62	*	*	*	*	*
K-N (increase .10)	62	*	*	*	*	*
N-U (increase .10)	63	*	*	*	*	*
U-Z (increase .10)	92	*	*	*	*	*
Total Storage		15.18	10.23	10.23	10.40	15.18
Interest Charge	4.00%	5.44	3.70	3.73	3.81	5.62
Full Carry B4 VSR		20.62	13.93	13.96	14.20	20.80
Closing Board Spread		4.75	4.50	2.50	5.75	10.00
Closing Spread % FC		23%	32%	18%	40%	48%

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

VSR DECREASES		Z	H	K	N	U
KCBT VSR (ct/bu)	Spread	Z-H	H-K	K-N	N-U	U-Z
Futures Close Price	Days	433.75	446.00	454.50	463.00	472.25
Base Storage	0.265	24.38	16.43	16.43	16.70	24.38
Z-H (increase .10)	92	-7.40	-6.20	-6.20	-6.30	-9.20
H-K (increase .10)	62	*	*	*	*	*
K-N (increase .10)	62	*	*	*	*	*
N-U (increase .10)	63	*	*	*	*	*
U-Z (increase .10)	92	*	*	*	*	*
Total Storage		16.98	10.23	10.23	10.40	15.18
Interest Charge	4.00%	4.43	3.07	3.13	3.24	4.83
Full Carry B4 VSR		28.81	19.50	19.56	19.94	29.21
Closing Board Spread		12.25	8.50	8.50	9.25	12.50
Closing Spread % FC		43%	44%	43%	46%	43%

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

559.75

484.75

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Wheat vs Corn Feeding Relationship

	SW Kansas			Texas Panhandle		North Carolina	
	HRW	Milo	Corn	HRW	Corn	SRW	Corn
Basis	-55.00	-60.00	-5.00	-43.75	52.00	NB	67.00
Futures	433.75	391.00	391.00	433.75	391.00	532.25	391.00
Flat Price	378.75	331.00	386.00	390.00	443.00	NB	458.00
Flat Price (mt)	139.17	131.31	153.13	143.30	175.74	NB	181.69
Wheat/Corn	91%	86%		82%		NA	

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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
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	-1.35	-1.35	-1.35	0.00	0.00	0.00
Freight Cost (c/bu)	159.11	161.89	156.54	119.03	121.76	116.51	120.46	120.89	120.27
Delivered Value	160.11	159.89	160.54	120.03	119.76	120.51	121.46	118.89	124.27
Delivered bid (10.5% protein)	140.00	140.00	140.00	140.00	140.00	140.00	100.00	100.00	100.00
Cash vs. Delivery	-20.11	-19.89	-20.54	19.97	20.24	19.49	-21.46	-18.89	-24.27
# 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	472.25	472.25	472.25	472.25	472.25	472.25	472.25	472.25	472.25
Interest Cost	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63	1.63
TTL Est. Carry Cost	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84	9.84
Cash vs. Delivery	-29.95	-29.73	-30.38	10.13	10.40	9.64	-31.30	-28.73	-34.11

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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
Barge Freight	315%	240%	365%	265%	NA	NA	NA
Tarriff	12.00	9.40	17.30	12.00	NA	NA	NA
Barge Freight (c/bu)/ Lakes	37.80	22.56	63.15	31.80	NA	NA	NA
Delivered Value	45.80	50.56	71.15	49.80	8.00	8.00	-2.00
Delivered Gulf / FOB Elevator	98.00	98.00	98.00	98.00	65.00	45.00	45.00
Cash vs. Delivery	52.20	47.44	26.86	48.20	57.00	37.00	47.00
# 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	532.25	532.25	532.25	532.25	532.25	532.25	532.25
Interest Cost	1.83	1.83	1.83	1.83	1.83	1.83	1.83
TTL Est. Carry Cost	6.95	6.95	6.95	6.95	6.95	6.95	6.95
Cash vs. Delivery	45.25	40.49	19.91	41.25	50.05	30.05	40.05

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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	12.000	12.000	12.000
Tariff Rate	2283.00	2299.00	N/A
Tariff Rate (c/bu)	61.70	62.14	0.00
Rail Cost	-0.68	-1.35	N/A
Freight Cost (c/bu) (Dul -18.25)	61.03	60.78	-35.00
Delivered Value	73.03	72.78	-25.00
Del. Chicago Gateway Bid	15.00	15.00	10.00
Cash vs. Delivery	-58.03	-57.78	-37.00
# of Days in Storage	31.00	31.00	31.00
Storage Cost	7.00	7.00	7.00
Futures	580.75	580.75	580.75
Interest Cost	2.00	2.00	N/A
TTL Est. Carry Cost	9.00	9.00	N/A
Cash vs. Delivery	-67.03	-66.78	N/A

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

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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	355%	355%	355%	355%
Tarriff	16.20	14.70	14.25	13.50
Barge Freight (ct/bu)	57.51	52.19	50.59	47.93
Delivered Value	63.51	60.19	59.09	56.93
Delivered Bid	50.00	50.00	50.00	50.00
Cash vs. Delivery	-13.51	-10.19	-9.09	-6.93
# of Days in Storage	31.00	31.00	31.00	31.00
Storage Cost	5.00	5.00	5.00	5.00
Futures	406.50	406.50	406.50	406.50
Interest Cost	1.400	1.400	1.400	1.400
TTL Est. Carry Cost	6.40	6.40	6.40	6.40
Cash vs. Delivery	-19.91	-16.59	-15.49	-13.33

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Deliverable Stocks as of October 11, 2019

Date	11-Oct	Wk Ago	Change	YR Ago
KCBT	106,980	107,332	(352)	124,606
CBOT	45,732	45,958	(226)	79,724
MGEX	25,396	23,591	1,805	21,628

KCBT Deliverable Wheat Stocks

Date	11-Oct	Wk Ago	Change	YR Ago
Hutchinson	25,552	25,644	(92)	29,028
KC	12,986	12,957	29	12,113
Salina	30,597	30,285	312	38,096
Wichita	37,845	38,446	(601)	45,369
Total	106,980	107,332	(352)	124,606

CBOT Deliverable & Non-Deliverable Wheat Stocks

Date	11-Oct	Wk Ago	Change	YR Ago
Chicago	4,272	4,328	(56)	10,273
Miss. River	4,813	4,805	8	13,892
NW Ohio	10,006	9,936	70	11,798
Ohio River	2,283	2,343	(60)	12,786
St. Louis	2,248	2,279	(31)	2,542
Toledo	22,110	22,267	(157)	28,433
Total	45,732	45,958	(226)	79,724
Non-Deliver	4,549	4,306	243	8,955
Net-Deliver	41,183	41,652	(469)	70,769

MGEX Deliverable Wheat Stocks

Date	11-Oct	Wk Ago	Change	YR Ago
Mpls	4,958	4,720	238	1,963
Duluth	20,438	18,871	1,567	19,665
Total	25,396	23,591	1,805	21,628

10/10/2019

CHICAGO SRW WHEAT VSR

Variable Storage Rate December 2019 - March 2020 Calculation Period

December 2019 First Delivery Day 12/2/2019
 March 2020 First Delivery Day 3/2/2020
 Number of Carry Days 91
 Storage Rate Used in Calculation \$0.00165/bu/day
 Running Average Percent of Full Carry 32.14%

Date	Dec 2019 Contract Price	Mar 2020 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Sep19-Dec19 Spread	Sep-Dec Spread as % of Full Carry
9/19/2019	\$4.8800	\$4.9425	4.15888	0.201452	0.0625	31.0%
9/20/2019	\$4.8425	\$4.9100	4.13463	0.200761	0.0675	33.6%
9/23/2019	\$4.8300	\$4.9000	4.10625	0.200284	0.0700	35.0%
9/24/2019	\$4.8175	\$4.8850	4.11300	0.200236	0.0675	33.7%
9/25/2019	\$4.7725	\$4.8375	4.09963	0.199607	0.0650	32.6%
9/26/2019	\$4.8425	\$4.9025	4.10438	0.200391	0.0600	29.9%
9/27/2019	\$4.8725	\$4.9375	4.09863	0.200631	0.0650	32.4%
9/30/2019	\$4.9575	\$5.0250	4.08513	0.201343	0.0675	33.5%
10/1/2019	\$4.9875	\$5.0575	4.08863	0.201697	0.0700	34.7%
10/2/2019	\$4.8900	\$4.9625	4.05638	0.200290	0.0725	36.2%
10/3/2019	\$4.8875	\$4.9625	4.04313	0.200101	0.0750	37.5%
10/4/2019	\$4.9050	\$4.9750	4.02700	0.200080	0.0700	35.0%
10/7/2019	\$4.8925	\$4.9650	4.01200	0.199767	0.0725	36.3%
10/8/2019	\$5.0025	\$5.0775	4.00950	0.200851	0.0750	37.3%
10/9/2019	\$5.0025	\$5.0700	3.98425	0.200532	0.0675	33.7%
10/10/2019	\$4.9300	\$4.9975	3.98613	0.199825	0.0675	33.8%
10/11/2019	\$5.0800	\$5.1400	4.00088	0.201526	0.0600	29.8%
10/14/2019	\$5.1100	\$5.1675	4.00088	0.201829	0.0575	28.5%
10/15/2019	\$5.0700	\$5.1325	4.00213	0.201441	0.0625	31.0%
10/16/2019	\$5.1325	\$5.1825	4.00325	0.202087	0.0500	24.7%
10/17/2019	\$5.2550	\$5.3025	3.96588	0.202831	0.0475	23.4%
10/18/2019	\$5.3225	\$5.3700	3.95325	0.203337	0.0475	23.4%
10/21/2019				0.150150	0.0000	0.0%
10/22/2019				0.150150	0.0000	0.0%
10/23/2019				0.150150	0.0000	0.0%
10/24/2019				0.150150	0.0000	0.0%
10/25/2019				0.150150	0.0000	0.0%
10/28/2019				0.150150	0.0000	0.0%
10/29/2019				0.150150	0.0000	0.0%
10/30/2019				0.150150	0.0000	0.0%
10/31/2019				0.150150	0.0000	0.0%
11/1/2019				0.150150	0.0000	0.0%
11/4/2019				0.150150	0.0000	0.0%
11/5/2019				0.150150	0.0000	0.0%
11/6/2019				0.150150	0.0000	0.0%
11/7/2019				0.150150	0.0000	0.0%
11/8/2019				0.150150	0.0000	0.0%
11/11/2019				0.150150	0.0000	0.0%
11/12/2019				0.150150	0.0000	0.0%
11/13/2019				0.150150	0.0000	0.0%
11/14/2019				0.150150	0.0000	0.0%
11/15/2019				0.150150	0.0000	0.0%
11/18/2019				0.150150	0.0000	0.0%
11/19/2019				0.150150	0.0000	0.0%
11/20/2019				0.150150	0.0000	0.0%
11/21/2019				0.150150	0.0000	0.0%
11/22/2019				0.150150	0.0000	0.0%

Results:

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

If the Running Average Percent of Full Carry on 11/22/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00265 on 12/19/2019

If the Running Average Percent of Full Carry on 11/22/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 12/19/2019

If the Running Average Percent of Full Carry on 11/22/2019 is 50% or Less, the Maximum Premium (Storage) Charge will remain at \$0.00165/bu/day on 12/19/2019

10/18/2019

KANSAS CITY HRW WHEAT VSR

Variable Storage Rate December 2019 - March 2020 Calculation Period

September 2019 First Delivery Day 12/2/2019
 March 2020 First Delivery Day 3/2/2020
 Number of Carry Days 91
 Storage Rate Used in Calculation \$0.00265/bu/day
 Running Average Percent of Full Carry 46.93%

Date	Dec 2019 Contract Price	Mar 2020 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Sep19-Dec19 Spread	Sep-Dec Spread as % of Full Carry
9/19/2019	\$4.0950	\$4.2325	4.15888	0.284200	0.1375	48.4%
9/20/2019	\$4.0750	\$4.2100	4.13463	0.283740	0.1350	47.6%
9/23/2019	\$4.0650	\$4.1975	4.10625	0.283343	0.1325	46.8%
9/24/2019	\$4.0500	\$4.1850	4.11300	0.283257	0.1350	47.7%
9/25/2019	\$4.0400	\$4.1725	4.09963	0.283016	0.1325	46.8%
9/26/2019	\$4.0825	\$4.2150	4.10438	0.283506	0.1325	46.7%
9/27/2019	\$4.0750	\$4.2075	4.09863	0.283369	0.1325	46.8%
9/30/2019	\$4.1500	\$4.2825	4.08513	0.284004	0.1325	46.7%
10/1/2019	\$4.1150	\$4.2400	4.08863	0.283679	0.1250	44.1%
10/2/2019	\$4.0575	\$4.1950	4.05638	0.282754	0.1375	48.6%
10/3/2019	\$4.0575	\$4.2025	4.04313	0.282618	0.1450	51.3%
10/4/2019	\$4.0400	\$4.1850	4.02700	0.282275	0.1450	51.4%
10/7/2019	\$4.0225	\$4.1700	4.01200	0.281944	0.1475	52.3%
10/8/2019	\$4.1025	\$4.2425	4.00950	0.282729	0.1400	49.5%
10/9/2019	\$4.1325	\$4.2625	3.98425	0.282770	0.1300	46.0%
10/10/2019	\$4.0325	\$4.1650	3.98613	0.281782	0.1325	47.0%
10/11/2019	\$4.1950	\$4.3200	4.00088	0.283575	0.1250	44.1%
10/14/2019	\$4.2575	\$4.3775	4.00088	0.284208	0.1200	42.2%
10/15/2019	\$4.2125	\$4.3425	4.00213	0.283766	0.1300	45.8%
10/16/2019	\$4.2500	\$4.3775	4.00325	0.284157	0.1275	44.9%
10/17/2019	\$4.3125	\$4.4400	3.96588	0.284382	0.1275	44.8%
10/18/2019	\$4.3375	\$4.4600	3.95325	0.284494	0.1225	43.1%
10/21/2019				0.241150	0.0000	0.0%
10/22/2019				0.241150	0.0000	0.0%
10/23/2019				0.241150	0.0000	0.0%
10/24/2019				0.241150	0.0000	0.0%
10/25/2019				0.241150	0.0000	0.0%
10/28/2019				0.241150	0.0000	0.0%
10/29/2019				0.241150	0.0000	0.0%
10/30/2019				0.241150	0.0000	0.0%
10/31/2019				0.241150	0.0000	0.0%
11/1/2019				0.241150	0.0000	0.0%
11/4/2019				0.241150	0.0000	0.0%
11/5/2019				0.241150	0.0000	0.0%
11/6/2019				0.241150	0.0000	0.0%
11/7/2019				0.241150	0.0000	0.0%
11/8/2019				0.241150	0.0000	0.0%
11/11/2019				0.241150	0.0000	0.0%
11/12/2019				0.241150	0.0000	0.0%
11/13/2019				0.241150	0.0000	0.0%
11/14/2019				0.241150	0.0000	0.0%
11/15/2019				0.241150	0.0000	0.0%
11/18/2019				0.241150	0.0000	0.0%
11/19/2019				0.241150	0.0000	0.0%
11/20/2019				0.241150	0.0000	0.0%
11/21/2019				0.241150	0.0000	0.0%
11/22/2019				0.241150	0.0000	0.0%

Needed to reverse the VSR
 52.70% Percent of full carry
 0.149937 Spread average

Results:

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

If the Running Average Percent of Full Carry on 11/22/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00365 on 12/19/2019

If the Running Average Percent of Full Carry on 11/22/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00265/bu/day on 12/19/2019

If the Running Average Percent of Full Carry on 11/22/2019 is 50% or Less, the Maximum Premium (Storage) Charge will decline to \$0.00165/bu/day on 12/19/2019