

DATE 1-Feb-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
Sep-19	U	539.50	535.00	591.75	186.00	1.168	397.50	0.7273	951.25
Dec-19	Z	552.00	549.50	603.25	188.00	1.177	402.25	0.7284	966.75
Mar-19	H	524.25	508.75	575.50	204.00	1.150	378.25	0.7255	917.75
May-19	K	528.25	517.25	579.25	205.50	1.159	387.00	0.7264	931.50
Jul-19	N	532.00	526.00	585.75	186.00	1.168	394.75	0.7273	944.25

Gulf Export		HRW FOB Gulf				HRS		SRW	LAKES		
Basis (ct/bu)		10.0%	11.0%	11.5%	12.0%	13.0%	13.5%		13%	HRS 13.5%	14%
Old Crop		-15.00	-10.00	-5.00		TX Gulf -0 ct/bu					
New Crop		-15.00	-10.00	-5.00		0.00 14%+8			0.00		8.00
Shipment	Futures	Basis NOLA				HRS		SRW	HRS		
Jun	N	140.00	145.00	150.00	155.00	155.00	155.00	95.00	40.00	40.00	48.00
Jul	N	140.00	145.00	150.00	155.00	155.00	155.00	85.00	40.00	40.00	48.00
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	150.00	155.00	160.00	165.00	155.00	155.00	105.00	-	-	-
Mar	H	150.00	155.00	160.00	165.00	155.00	155.00	105.00	-	-	-
Apr	K	145.00	150.00	155.00	160.00	160.00	160.00	100.00	45.00	45.00	53.00
May	K	145.00	150.00	155.00	160.00	160.00	160.00	100.00	45.00	45.00	53.00
Flat Price FOB Vessel		HRW				HRS		SRW	HRS		
Shipment	Futures	10.0%	11.0%	11.5%	12.0%	13.0%	13.5%		13%	13.5%	14%
Jun	N	244.71	246.55	248.39	250.22	272.18	272.18	230.38	229.92	229.92	232.86
Jul	N	244.71	246.55	248.39	250.22	272.18	272.18	226.71	229.92	229.92	232.86
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	242.05	243.89	245.72	247.56	268.41	268.41	231.21	-	-	-
Mar	H	242.05	243.89	245.72	247.56	268.41	268.41	231.21	-	-	-
Apr	K	243.34	245.17	247.01	248.85	271.63	271.63	230.84	227.54	229.37	230.47
May	K	243.34	245.17	247.01	248.85	271.63	271.63	230.84	229.37	229.37	232.31

PNW CASH BASIS FOB (S&T+S&F) US c/bu								CANADA CASH BASIS			
Basis (ct/bu)		HRW				NS 60 DHV			SWW	Vancouver Canada	Vancouver Canada
		10.50%	11.0%	11.5%	12.0%	13%	13.5%	14.0%	Max 10.5% pro	#2 13.5%	#1 13.8%
New Crop											
Old Crop		-5.00	0.00		5.00	-5.00	-5.00	+10 14.5%		13.0%-0	
Shipment	Futures	Basis NOLA				HRS			SWW	Vancouver Canada	Vancouver Canada
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	170.00	175.00	175.00	180.00	95.00	95.00	100.00	136	-	-
Mar	H	170.00	175.00	175.00	180.00	100.00	100.00	105.00	136	118.00	128.00
Apr	K	165.00	170.00	170.00	175.00	105.00	105.00	110.00	132	118.00	128.00
May	K	165.00	170.00	170.00	175.00	110.00	110.00	115.00	135	121.00	131.00
Flat Price FOB Vessel (USD/mt)		HRW				HRS			SWW	Vancouver Canada	Vancouver Canada
Shipment	Futures	10.50%	11.0%	11.5%	12.0%	13%	13.5%	14%		#2 13.5%	#1 13.8%
Jan	H	-	-	-	-	-	-	-	-	-	-
Feb	H	249.40	251.24	251.24	253.07	246.37	246.37	248.20	243	-	-
Mar	H	249.40	251.24	251.24	253.07	248.20	248.20	250.04	243	254.82	258.49
Apr	K	250.68	252.52	252.52	254.36	251.42	251.42	253.26	243	256.20	259.87
May	K	250.68	252.52	252.52	254.36	253.26	253.26	255.09	244	257.30	260.97

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	145.00	120.00	145.00	110.00	137.00	Basis	110.00	145.00	105.00	140.00	100.00	135.00
Futures	575.50	508.75	575.50	508.75	575.50	508.75	Futures	579.25	517.25	579.25	517.25	579.25	517.25
Del Chicago	705.50	653.75	695.50	653.75	685.50	645.75	Del Chicago	689.25	662.25	684.25	657.25	679.25	652.25

Spring Wheat + HRW Milling Blend						
14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	120	579.25	699.25	2.5	684.39	105.14
11.5% HRW	130	517.25	647.25	1		
14% HRS Comparison	110	579.25	689.25			
<b>Blended Discount (ct/bu)</b>	<b>4.86</b>					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	120	579.25	699.25	3	685.00	105.75
11.0% HRW	125	517.25	642.25	1		
14% HRS Comparison	110	579.25	689.25			
<b>Blended Discount (ct/bu)</b>	<b>4.25</b>					

14% HRS Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
15% HRS	120	579.25	699.25	4	685.85	106.60
10.0% HRW	115	517.25	632.25	1		
14% HRS Comparison	110	579.25	689.25			
<b>Blended Discount (ct/bu)</b>	<b>3.40</b>					

13% HRS Protein Blend (Western Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	110	579.25	689.25	1.5	672.45	93.20
11.5% HRW	130	517.25	647.25	1		
13% HRS Comparison	100	579.25	679.25			
<b>Blended Discount (ct/bu)</b>	<b>6.80</b>					

13% HRS Protein Blend (Eastern Mills)						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis MW
14% HRS	110	579.25	689.25	2	673.58	94.33
11.0% HRW	125	517.25	642.25	1		
13% HRS Comparison	100	579.25	679.25			
<b>Blended Discount (ct/bu)</b>	<b>5.67</b>					

12.25% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
15% HRS	120	579.25	699.25	1	662.40	145.15
10.0% HRW	115	517.25	632.25	1.2		
12.25% HRW Comparison	125	517.25	642.25			
<b>Blended Discount (ct/bu)</b>	<b>-20.15</b>					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	110	579.25	689.25	1	657.92	140.67
11.0% HRW	125	517.25	642.25	2		
12.0% HRW Comparison	125	517.25	642.25			
<b>Blended Discount (ct/bu)</b>	<b>-15.67</b>					

12.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
13.5% HRS	105	579.25	684.25	1	659.05	141.80
11.0% HRW	125	517.25	642.25	1.5		
12.0% HRW Comparison	125	517.25	642.25			
<b>Blended Discount (ct/bu)</b>	<b>-16.80</b>					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
14% HRS	110	579.25	689.25	1	650.08	132.83
11.0% HRW	125	517.25	642.25	5		
11.5% HRW Comparison	130	517.25	647.25			
<b>Blended Discount (ct/bu)</b>	<b>-2.83</b>					

11.5% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	125	517.25	642.25	3	639.75	122.50
10.0% HRW	115	517.25	632.25	1		
11.5% HRW Comparison	130	517.25	647.25			
<b>Blended Discount (ct/bu)</b>	<b>7.50</b>					

11.0% HRW Protein Blend						
	Spot Basis	Futures	Flat Price	Blend	Blended Price	Basis KW
12.0% HRW	125	517.25	642.25	1	637.25	120.00
10.0% HRW	115	517.25	632.25	1		
11.0% HRW Comparison	125	517.25	642.25			
<b>Blended Discount (ct/bu)</b>	<b>5.00</b>					

1-Feb-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-18	U	539.50	535.00	591.75	186.00	1.17	397.50	951.25
Dec-18	Z	552.00	549.50	603.25	188.00	1.18	402.25	966.75
Mar-19	H	524.25	508.75	575.50	204.00	1.15	378.25	917.75
May-19	K	528.25	517.25	579.25	205.50	1.16	387.00	931.50
Jul-19	N	532.00	526.00	585.75	186.00	1.17	394.75	944.25

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
Flat Price FOB Vessel (USD/mt)		US GULF			Flat Price FOB Vessel (USD/mt)		PNW		
J/F/M	H	65.00	100.00	35.00	J/F/M	H	115.00	110.00	70.00
A/M	K	60.00	100.00	25.00	A/M	K	105.00	100.00	65.00
J/F/M	H	174.50	188.28	350.08	J/F/M	H	194.18	192.21	362.94
A/M	K	175.97	191.72	351.45	A/M	K	193.69	191.72	366.15

**Cash and Carrying Charges**

BNSF Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	150.00	140.00	130.00	125.00	130.00	140.00
Futures ct/bu	508.75	517.25	526.00	535.00	549.50	549.50
Flat Price	658.75	657.25	656.00	660.00	679.50	689.50
Rail Freight	-9.46	1.35	2.03	1.35	-10.81	-5.41
Delivered Gulf	649.29	658.60	658.03	661.35	668.69	684.09
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Feb-Apr	9.31					
Feb-Jun	8.7					
Feb-Aug	12.06					
Feb-Oct	19.40					
Feb-Dec	34.80					
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Feb-Apr	4.66					
Feb-Jun	2.2					
Feb-Aug	2.01					
Feb-Oct	2.42					
Feb-Dec	3.48					

SRW	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	85.00	75.00	55.00	60.00	65.00	70.00
Futures ct/bu	524.25	528.25	532.00	539.50	552.00	552.00
Flat Price	609.25	603.25	587.00	599.50	617.00	622.00
Barge Freight	-75.26	-64.88	-63.15	-64.88	-83.04	-85.64
FOB Shipper	534.00	538.38	523.86	534.63	533.96	536.37
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Feb-Apr	4.38					
Feb-Jun	-10.1					
Feb-Aug	0.63					
Feb-Oct	-0.03					
Feb-Dec	2.37					
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Feb-Apr	2.19					
Feb-Jun	-2.5					
Feb-Aug	0.10					
Feb-Oct	0.00					
Feb-Dec	0.24					

UP Rail: Cash Carrying Charges to Warehousemen						
HRW 11%	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	150.00	140.00	130.00	125.00	130.00	140.00
Futures ct/bu	508.75	517.25	526.00	535.00	549.50	549.50
Flat Price	658.75	657.25	656.00	660.00	679.50	689.50
Rail Freight	1.35	2.70	2.70	2.03	-5.41	-3.38
Delivered Gulf	660.10	659.95	658.70	662.03	674.09	686.12
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Feb-Apr	-0.15					
Feb-Jun	-1.4					
Feb-Aug	1.93					
Feb-Oct	13.99					
Feb-Dec	26.02					
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Feb-Apr	-0.07					
Feb-Jun	-0.3					
Feb-Aug	0.32					
Feb-Oct	1.75					
Feb-Dec	2.60					

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 '19	-75	315%	365%	-100
Jul '19	-75	315%	365%	-100
Aug '19	-50	340%	375%	-75
Sep '19	-50	415%	425%	-75
Oct '19	400	490%	480%	200
Nov '19	300	500%	490%	150
Dec '19	200	505%	495%	125
Jan '19	-	370%	450%	-50
Feb '19	350	345%	435%	-50
Mar '19	200	315%	395%	-50
Apr '19	-50	315%	375%	-100
May '19	-50	315%	365%	-100
Cents/Bushel Equivalent				
Jun '19	-2.03	37.80	63.15	-2.70
Jul '19	-2.03	37.80	63.15	-2.70
Aug '19	-1.35	40.80	64.88	-2.03
Sep '19	-1.35	49.80	73.53	-2.03
Oct '19	10.81	58.80	83.04	5.41
Nov '19	8.11	60.00	84.77	4.05
Dec '19	5.41	60.60	85.64	3.38
Jan '19	-	44.40	77.85	-1.35
Feb '19	9.46	41.40	75.26	-1.35
Mar '19	5.41	37.80	68.34	-1.35
Apr '19	-1.35	37.80	64.88	-2.70
May '19	-1.35	37.80	63.15	-2.70

Corn	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	55.00	50.00	45.00	45.00	40.00	45.00
Futures ct/bu	378.25	387.00	394.75	397.50	402.25	402.25
Flat Price	433.25	437.00	439.75	442.50	442.25	447.25
Barge Freight	-75.26	-64.88	-63.15	-64.88	-83.04	-85.64
FOB Shipper	358.00	372.13	376.61	377.63	359.21	361.62
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Feb-Apr	14.13					
Feb-Jun	18.61					
Feb-Aug	19.63					
Feb-Oct	1.21					
Feb-Dec	3.62					
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Feb-Apr	7.07					
Feb-Jun	4.65					
Feb-Aug	3.27					
Feb-Oct	0.15					
Feb-Dec	0.36					

Soybeans	Feb	Apr	Jun	Aug	Oct	Dec
Basis ct/bu	20.00	15.00	15.00	20.00	20.00	25.00
Futures ct/bu	917.75	931.50	944.25	951.25	966.75	966.75
Flat Price	937.75	946.50	959.25	971.25	986.75	991.75
Barge Freight	-75.26	-64.88	-63.15	-64.88	-83.04	-85.64
FOB Shipper	862.50	881.63	896.11	906.38	903.71	906.12
<b>Cash Carry</b>	<b>Storage Revenue ct/bu</b>					
Feb-Apr	19.13					
Feb-Jun	33.61					
Feb-Aug	43.88					
Feb-Oct	41.22					
Feb-Dec	43.62					
<b>Cash Carry</b>	<b>Monthly Storage Revenue ct/bu</b>					
Feb-Apr	9.57					
Feb-Jun	8.40					
Feb-Aug	7.31					
Feb-Oct	5.15					
Feb-Dec	4.36					

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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	539.50	535.00	591.75	186.00	1.1682	0.7273	287.25	214.75
Dec-19	Z	552.00	549.50	603.25	188.00	1.1773	0.7284	275.50	218.75
Mar-19	H	524.25	508.75	575.50	204.00	1.1502	0.7255	286.00	248.50
May-19	K	528.25	517.25	579.25	205.50	1.1592	0.7264	286.25	253.25
Jul-19	N	532.00	526.00	585.75	186.00	1.1682	0.7273	286.50	209.25

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 11.5%-5	11.50% Matiff Rouen	12.50% Matiff	12.50% Matiff
Jun	N	-	-	-	-	-	21	4.00	10.00	9.00
Jul	N	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-
Feb	H	-	298	311	257	208	-	-	-	-
Mar	H	158	298	311	257	208	17	4.00	7.00	6.00
Apr	K	158	294	307	253	204	16	2.00	6.00	5.00
May	K	171	296	310	256	207	19	3.00	8.00	7.00
Flat Price FOB Vessel (USD/mt)		Argentine	S. Australia	S. Australia	W. Aust. APW	W. Aust.	FSU	French	German	Baltic
Shipment	Futures	11.5% KCBT	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	-	-	-	-	-	263.00	242.84	249.80	248.64
Jul	N	-	-	-	-	-	-	-	-	-
Jan	H	-	-	-	-	-	-	-	-	-
Feb	H	-	302.00	307.00	287.00	269.00	-	-	-	-
Mar	H	245.00	302.00	307.00	287.00	269.00	254.00	239.23	242.68	241.53
Apr	K	248.00	302.00	307.00	287.00	269.00	257.00	240.52	245.16	244.00
May	K	253.00	303.00	308.00	288.00	270.00	260.00	241.68	247.48	246.32

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% -0	Canada #2 13.5%	Canada #1 13.8%
<b>New Crop</b>				-5.00		10.00
Jun	N	-	115.00	113.00	118.00	128.00
Jul	N	-	120.00	116.00	121.00	131.00
Jan	H	-	-	-	-	-
Feb	H	-	-	-	-	-
Mar	H	-	-	113.00	118.00	128.00
Apr	K	-	-	113.00	118.00	128.00
May	K	-	115.00	116.00	121.00	131.00
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	-	257.48	256.75	258.58	262.26
Jul	N	-	259.32	257.85	259.69	263.36
Feb	H	-	-	-	-	-
Mar	H	-	-	252.98	254.82	258.49
Apr	K	-	-	254.36	256.20	259.87
May	K	-	255.09	255.46	257.30	260.97

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

Destination  Country (Port) (Vessel Size)	Wheat Freight												
	Origin (Port)												
	S. Aust. (Adelaide)	W. Aust. (Kwinana)	PNW (Portland)	Gulf (New Orleans)	Gulf (Houston)	Canada (Vancouver)	Canada (Montreal)	Russia (Novo)	Germany (Hamburg)	Poland (Gdansk)	France (La Pallice)	Argentina (UP+BB)	
China (Shanghai) (60 kmt)	\$19	\$16	\$22	\$42	\$41	\$18	\$51	-	-	-	-	-	
Japan (Tokyo) (40 kmt)	\$19	\$17	\$25	\$40	\$39	\$21	\$51	-	-	-	-	-	
Malaysia (Singapore) (50 kmt)	\$15	\$13	\$25	\$47	\$46	\$21	\$50	\$36	\$41	\$41	\$37	\$36	
Indonesia (Jakarta) (50 kmt)	\$14	\$12	\$25	\$47	\$46	\$21	\$51	\$37	\$42	\$42	\$38	\$35	
Mexico (Veracruz) (30 kmt)	-	-	\$28	\$15	\$14	\$24	\$26	\$30	\$26	\$26	\$23	\$34	
Colombia (Cartagena) (30 kmt)	-	-	-	\$16	\$15	\$21	\$24	\$27	\$24	\$24	\$20	\$29	
Peru (Callao) (30 kmt)	-	-	-	\$26	\$25	\$19	\$36	\$44	\$39	\$39	\$34	\$30	
Brazil (Fortaleza) (30 kmt)	\$39	\$36	\$27	\$23	\$22	\$27	\$28	\$24	\$22	\$22	\$18	\$21	
Egypt (Damietta) (60 kmt)	\$22	\$20	\$31	\$30	\$29	-	-	\$14	\$21	\$21	\$17	\$33	
Saudi Arabia (Jeddah) (60 kmt)	\$18	\$16	\$36	\$40	\$39	\$32	\$44	-	\$31	\$32	\$27	-	
Saudi Arabia (Dammam) (60 kmt)	\$22	\$19	\$35	\$45	\$44	\$31	\$49	-	\$40	\$40	\$36	-	
Algeria (Algiers) (30 kmt, 3 kmt/day unload)	-	-	-	\$34	\$33	-	-	-	\$26	\$27	\$21	\$43	
Morocco (Casa Blanca) (30 kmt)	-	-	-	\$31	\$30	-	-	\$22	\$21	\$22	\$17	\$36	
Nigeria (Lagos) (40 kmt)	\$30	\$27	\$39	\$32	\$31	\$35	\$36	\$31	\$31	\$32	\$26	\$32	
South Africa (Cape Town) (40 kmt)	\$18	\$17	\$37	\$28	\$27	\$33	\$33	\$33	\$28	\$28	\$24	\$22	

Price= USD Destination Protein/Class FOB	C & F Rates																
	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%	
	\$302	\$307	\$287	\$269	\$243	\$251	\$248	\$231	\$244	\$257	\$255	\$254	\$243	\$242	\$239	\$243	
China (Shanghai) (60 kmt)	\$321	\$323	\$303	\$285	\$265	\$273	\$270	\$273	\$285	\$275	\$306						
Japan (Tokyo) (40 kmt)	\$321	\$324	\$304	\$286	\$268	\$276	\$273	\$271	\$283	\$278	\$306						
Malaysia (Singapore) (50 kmt)	\$317	\$320	\$300	\$282	\$268	\$276	\$273	\$278	\$290	\$278	\$305	\$290	\$284	\$283	\$276	\$279	
Indonesia (Jakarta) (50 kmt)	\$316	\$319	\$299	\$281	\$268	\$276	\$273	\$278	\$290	\$278	\$306	\$291	\$285	\$284	\$277	\$278	
Mexico (Veracruz) (30 kmt)					\$271	\$279	\$276	\$246	\$258	\$281	\$281	\$284	\$269	\$268	\$262	\$277	
Colombia (Cartagena) (30 kmt)								\$247	\$259	\$278	\$279	\$281	\$267	\$266	\$259	\$272	
Peru (Callao) (30 kmt)								\$257	\$269	\$276	\$291	\$298	\$282	\$281	\$273	\$273	
Brazil (Fortaleza) (30 kmt)	\$341	\$343	\$323	\$305	\$270	\$278	\$275	\$254	\$266	\$284	\$283	\$278	\$265	\$264	\$257	\$264	
Egypt (Damietta) (60 kmt)	\$324	\$327	\$307	\$289	\$274	\$282		\$261	\$273			\$268	\$264	\$263	\$256	\$276	
Saudi Arabia (Jeddah) (60 kmt)	\$320	\$323	\$303	\$285	\$279	\$287	\$284	\$271	\$283	\$289	\$299		\$274	\$274	\$266		
Saudi Arabia (Dammam) (60 kmt)	\$324	\$326	\$306	\$288	\$278	\$286	\$283	\$276	\$288	\$288	\$304		\$283	\$282	\$275		
Algeria (Algiers) (30 kmt, 3 kmt/day unload)								\$265	\$277				\$269	\$269	\$260	\$286	
Morocco (Casa Blanca) (30 kmt)								\$262	\$274			\$276	\$264	\$264	\$256	\$279	
Nigeria (Lagos) (40 kmt)	\$332	\$334	\$314	\$296	\$282	\$290	\$287	\$263	\$275	\$292	\$291	\$285	\$274	\$274	\$265	\$275	
South Africa (Cape Town) (40 kmt)	\$320	\$324	\$304	\$286	\$280	\$288	\$285	\$259	\$271	\$290	\$288	\$287	\$271	\$270	\$263	\$265	

	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	-	-	-	-	\$244	\$242	\$241	-	-	\$231
Mar	\$254	\$243	\$242	\$245	\$244	\$242	\$241	\$239	\$249	\$231
Apr	\$257	\$245	\$244	\$248	\$245	\$243	\$242	\$241	\$251	\$231
May	\$260	\$247	\$246	\$253	\$245	\$243	\$242	\$242	\$253	\$231

	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	\$287	\$307	\$269	\$249	\$251	\$243	\$246	\$248	-	-
Mar	\$287	\$307	\$269	\$249	\$251	\$243	\$248	\$250	\$255	\$258
Apr	\$287	\$307	\$269	\$251	\$253	\$243	\$251	\$253	\$256	\$260
May	\$288	\$308	\$270	\$251	\$253	\$244	\$253	\$255	\$257	\$261

1-Feb-19

Cascade Commodity Consulting Company

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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		62	62	63
<b>Corn Closing Price</b>		<b>378.25</b>	<b>387.00</b>	<b>394.75</b>
Storage rate		0.165	0.165	0.165
Total Storage		10.23	10.23	10.40
Total Interest		3.09	3.16	3.27
Full Carry		13.32	13.39	13.67
Spread Close		-8.75	-7.75	-2.75
% Full Carry		66%	58%	20%
<b>CME W Closing Price</b>		<b>524.25</b>	<b>528.25</b>	<b>532.00</b>
Storage rate		0.265	0.265	0.265
Total Storage		16.43	16.43	16.70
Total Interest		4.28	4.31	4.41
Full Carry		20.71	20.74	21.11
Spread Close		-4.00	-3.75	-7.5
% Full Carry		19%	18%	36%
<b>KCBT Closing Price</b>		<b>508.75</b>	<b>517.25</b>	<b>526.00</b>
Storage rate		0.365	0.365	0.365
Total Storage		22.63	22.63	23.00
Total Interest		4.15	4.22	4.36
Full Carry		26.78	26.85	27.36
Spread Close		-8.50	-8.75	-9.00
% Full Carry		32%	33%	33%
<b>MGEX Closing Price</b>		<b>575.50</b>	<b>579.25</b>	<b>585.75</b>
Storage rate		0.233	0.233	0.233
Total Storage		14.45	14.45	14.68
Total Interest		4.70	4.73	4.86
Full Carry		19.14	19.17	19.54
Spread Close		-3.75	-6.50	-6.00
% Full Carry		20%	34%	31%

VSR INCREASES		H	K	N	U	Z
CME VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
<b>Futures Close Price</b>	<b>Days</b>	<b>524.25</b>	<b>528.25</b>	<b>532.00</b>	<b>539.50</b>	<b>552.00</b>
Base Storage	0.265	16.43	16.43	16.70	24.38	24.38
H-K (increase .10)	62	4.40	6.20	6.30	9.20	9.20
K-N (increase .10)	62		4.40	6.30	9.20	9.20
N-U (increase .10)	63			4.50	9.20	9.20
U-Z (increase .10)	92				7.40	9.20
Z-H (increase .10)	92					7.40
Total Storage		20.83	27.03	33.80	59.38	68.58
Interest Charge	4.74%	4.28	4.31	4.41	6.53	6.68
Full Carry B4 VSR		20.71	20.74	21.11	30.91	31.06
Closing Board Spread		4.00	3.75	7.50	12.50	9.25
Closing Spread % FC		19%	18%	36%	40%	30%

VSR INCREASES		H	K	N	U	Z
KCBT VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
<b>Futures Close Price</b>	<b>Days</b>	<b>508.75</b>	<b>517.25</b>	<b>526.00</b>	<b>535.00</b>	<b>549.50</b>
Base Storage	0.365	22.63	22.63	23.00	33.58	33.58
H-K (increase .10)	62	4.40	6.20	6.30	9.20	9.20
K-N (increase .10)	62		4.40	6.30	9.20	9.20
N-U (increase .10)	63			4.50	9.20	9.20
U-Z (increase .10)	92				7.40	9.20
Z-H (increase .10)	92					7.40
Total Storage		27.03	33.23	40.10	68.58	77.78
Interest Charge	4.74%	4.15	4.22	4.36	6.48	6.65
Full Carry B4 VSR		26.78	26.85	27.36	40.06	40.23
Closing Board Spread		8.50	8.75	9.00	14.50	8.75
Closing Spread % FC		32%	33%	33%	36%	22%

VSR DECREASES		H	K	N	U	Z
CME VSR (ct/bu)	Spread	H-K	K-N	N-U	U-Z	Z-H
<b>Futures Close Price</b>	<b>Days</b>	<b>524.25</b>	<b>528.25</b>	<b>532.00</b>	<b>539.50</b>	<b>552.00</b>
Base Storage	0.265	16.43	16.43	16.70	33.58	33.58
H-K (decrease .10)	62	-4.40	-6.20	-6.30	-9.20	-9.20
K-N (decrease .10)	62		*	*	*	*
N-U (decrease .10)	63			*	*	*
U-Z (decrease .10)	92				*	*
Z-H (decrease .10)	92					*
Total Storage		12.03	10.23	10.40	24.38	24.38
Interest Charge	4.74%	4.28	4.31	4.41	6.53	6.68
Full Carry B4 VSR		20.71	20.74	21.11	40.11	40.26
Closing Board Spread		4.00	3.75	7.50	12.50	9.25
Closing Spread % FC		19%	18%	36%	31%	23%

\* 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
<b>Futures Close Price</b>	<b>Days</b>	<b>508.75</b>	<b>517.25</b>	<b>526.00</b>	<b>535.00</b>	<b>549.50</b>
Base Storage	0.365	22.63	22.63	23.00	33.58	33.58
H-K (decrease .10)	62	-4.40	-6.20	-6.30	-9.20	-9.20
K-N (decrease .10)	62		-4.40	-6.30	-9.20	-9.20
N-U (decrease .10)	63			*	*	*
U-Z (decrease .10)	92				*	*
Z-H (decrease .10)	92					*
Total Storage		18.23	12.03	10.40	15.18	15.18
Interest Charge	4.74%	4.15	4.22	4.36	6.48	6.65
Full Carry B4 VSR		26.78	26.85	27.36	40.06	40.23
Closing Board Spread		8.50	8.75	9.00	14.50	8.75
Closing Spread % FC		32%	33%	33%	36%	22%

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



1-Feb-19

**Cascade Commodity Consulting Company**

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**Wheat vs Corn Feeding Relationship**

	SW Kansas			Texas Panhandle		North Carolina	
	HRW	Milo	Corn	HRW	Corn	SRW	Corn
Basis	-50.00	-55.00	-5.00	-19.75	41.75	-84.25	66.75
Futures	508.75	378.25	378.25	508.75	378.25	524.25	378.25
Flat Price	458.75	323.25	373.25	489.00	420.00	440.00	445.00
Flat Price (mt)	168.56	128.23	148.07	179.68	166.61	161.67	176.53
Wheat/Corn	<b>114%</b>	<b>87%</b>		<b>108%</b>		<b>92%</b>	

1-Feb-19

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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)		
<b>11% Protein</b>	Hutchinson	Salina	Wichita	Hutchinson	Salina	Wichita	Hutchinson	Salina	Wichita
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)	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00	-10.00
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	-9.00	-12.00	-6.00	-9.00	-12.00	-6.00	-9.00	-12.00	-6.00
<b>Tariff Rate (\$/car)</b>	<b>5822.00</b>	<b>5925.00</b>	<b>5727.00</b>	<b>4389.00</b>	<b>4490.00</b>	<b>4296.00</b>	<b>4392.00</b>	<b>4408.00</b>	<b>4385.00</b>
Tariff Rate (c/bu)	157.35	160.14	154.78	118.62	121.35	116.11	118.70	119.14	118.51
<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	-1.35	-1.35	-1.35	0.00	0.00	0.00
<b>Freight Cost (c/bu)</b>	<b>157.35</b>	<b>160.14</b>	<b>154.78</b>	<b>117.27</b>	<b>120.00</b>	<b>114.76</b>	<b>118.70</b>	<b>119.14</b>	<b>118.51</b>
Delivered Value	148.35	148.14	148.78	108.27	108.00	108.76	109.70	107.14	112.51
<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>125.00</b>	<b>125.00</b>	<b>125.00</b>
<b>Cash vs. Delivery</b>	<b>-23.35</b>	<b>-23.14</b>	<b>-23.78</b>	<b>16.73</b>	<b>17.00</b>	<b>16.24</b>	<b>15.30</b>	<b>17.86</b>	<b>12.49</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	11.32	11.32	11.32	11.32	11.32	11.32	11.32	11.32	11.32
<b>Futures</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>	<b>508.75</b>
Interest Cost	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08
TTL Est. Carry Cost	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39	13.39
Cash vs. Delivery	-36.74	-36.53	-37.17	3.34	3.61	2.85	1.91	4.47	-0.90

Cascade Commodity Consulting Company

1-Feb-19

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>315%</b>	<b>270%</b>	<b>395%</b>	<b>285%</b>	NA	NA	NA
<b>Tarriff</b>	12.00	9.40	17.30	12.00	NA	NA	NA
Barge Freight (c/bu)/ Lakes	<b>37.80</b>	<b>25.38</b>	<b>68.34</b>	<b>34.20</b>	NA	NA	NA
Delivered Value	45.80	53.38	76.34	52.20	8.00	8.00	-2.00
<b>Delivered Gulf / FOB Elevator</b>	<b>94.00</b>	<b>94.00</b>	<b>94.00</b>	<b>94.00</b>	<b>15.00</b>	<b>15.00</b>	<b>10.00</b>
Cash vs. Delivery	48.20	40.62	17.67	41.80	7.00	7.00	12.00
<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	8.22	8.22	8.22	8.22	8.22	8.22	8.22
<b>Futures</b>	<b>524.25</b>	<b>524.25</b>	<b>524.25</b>	<b>524.25</b>	<b>524.25</b>	<b>524.25</b>	<b>524.25</b>
Interest Cost	2.14	2.14	2.14	2.14	2.14	2.14	2.14
TTL Est. Carry Cost	10.35	10.35	10.35	10.35	10.35	10.35	10.35
Cash vs. Delivery	37.85	30.27	7.31	31.45	-3.35	-3.35	1.65

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1-Feb-19

**Cascade Commodity Consulting Company**  
**MGEX Delivery Calculations**

<i>Price=USD</i>	Delivered Chicago Gateway		Duluth Replacement*
<b>13.5% Protein</b>	Duluth (BNSF) 110 cars	Duluth (CP) Single/25 cars	Duluth (CP) DETS (FOB Dul/Sup)*
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	5.41	-1.35	N/A
Freight Cost (c/bu) (Dul -18.25)	67.11	60.78	-35.00
Delivered Value	79.11	72.78	40.00
<b>Del. Chicago Gateway Bid</b>	<b>80.00</b>	<b>80.00</b>	<b>75.00</b>
Cash vs. Delivery	0.89	7.22	28.00
<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>575.50</b>	<b>575.50</b>	<b>575.50</b>
Interest Cost	2.35	2.35	N/A
TTL Est. Carry Cost	9.35	9.35	N/A
Cash vs. Delivery	-8.46	-2.13	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

<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>395%</b>	<b>395%</b>	<b>395%</b>	<b>395%</b>
Tarriff	16.20	14.70	14.25	13.50
<b>Barge Freight (ct/bu)</b>	<b>63.99</b>	<b>58.07</b>	<b>56.29</b>	<b>53.33</b>
Delivered Value	69.99	66.07	64.79	62.33
<b>Delivered Bid</b>	<b>55.00</b>	<b>55.00</b>	<b>55.00</b>	<b>55.00</b>
Cash vs. Delivery	-14.99	-11.07	-9.79	-7.33
<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>378.25</b>	<b>378.25</b>	<b>378.25</b>	<b>378.25</b>
Interest Cost	1.543	1.543	1.543	1.543
TTL Est. Carry Cost	6.54	6.54	6.54	6.54
Cash vs. Delivery	-21.53	-17.61	-16.33	-13.87

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

<b>Deliverable Stocks as of January 25, 2019</b>				
<b>Date</b>	<b>25-Jan</b>	<b>Wk Ago</b>	<b>Change</b>	<b>YR Ago</b>
<b>KCBT</b>	108,544	109,461	(917)	110,387
<b>CBOT</b>	65,830	67,226	(1,396)	82,996
<b>MGEX</b>	17,059	17,063	(4)	21,537

<b>KCBT Deliverable Wheat Stocks</b>				
<b>Date</b>	<b>25-Jan</b>	<b>Wk Ago</b>	<b>Change</b>	<b>YR Ago</b>
<b>Hutchinson</b>	26,799	27,030	(231)	26,819
<b>KC</b>	11,029	11,046	(17)	10,362
<b>Salina</b>	32,498	32,511	(13)	31,752
<b>Wichita</b>	38,218	38,874	(656)	41,454
<b>Total</b>	<b>108,544</b>	<b>109,461</b>	<b>(917)</b>	<b>110,387</b>

<b>CBOT Deliverable &amp; Non-Deliverable Wheat Stocks</b>				
<b>Date</b>	<b>25-Jan</b>	<b>Wk Ago</b>	<b>Change</b>	<b>YR Ago</b>
<b>Chicago</b>	7,298	7,623	(325)	9,568
<b>Miss. River</b>	10,735	10,837	(102)	14,157
<b>NW Ohio</b>	10,114	10,138	(24)	10,778
<b>Ohio River</b>	8,391	9,264	(873)	18,490
<b>St. Louis</b>	2,557	2,572	(15)	3,842
<b>Toledo</b>	26,735	26,792	(57)	26,161
<b>Total</b>	<b>65,830</b>	<b>67,226</b>	<b>(1,396)</b>	<b>82,996</b>
<b>Non-Deliver</b>	<b>9,132</b>	<b>9,254</b>	<b>(122)</b>	<b>6,462</b>
<b>Net-Deliver</b>	<b>56,698</b>	<b>57,972</b>	<b>(1,274)</b>	<b>76,534</b>

<b>MGEX Deliverable Wheat Stocks</b>				
<b>Date</b>	<b>25-Jan</b>	<b>Wk Ago</b>	<b>Change</b>	<b>YR Ago</b>
<b>Mpls</b>	1,594	1,568	26	2,557
<b>Duluth</b>	15,465	15,495	(30)	18,980
<b>Total</b>	<b>17,059</b>	<b>17,063</b>	<b>(4)</b>	<b>21,537</b>

1/25/2018

**CHICAGO SRW WHEAT VSR**

**Variable Storage Rate March 2019 - May 2019 Calculation Period**

March 2019 First Delivery Day 3/1/2019  
 May 2019 First Delivery Day 5/1/2019  
 Number of Carry Days 61  
 Storage Rate Used in Calculation \$0.00265/bu/day  
 Running Average Percent of Full Carry 30.86%

Date	Mar 2019 Contract Price	May 2019 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Mar19-May 19 Spread	Mar-May Spread as % of Full Carry	Needed to reverse VSR
12/19/2018	\$5.2250	\$5.2975	4.78963	0.204055	0.0725	35.5%	0.7519045
12/20/2018	\$5.2350	\$5.3100	4.82375	0.204439	0.0750	36.7%	0.1530255
12/21/2018	\$5.1400	\$5.2125	4.82163	0.203644	0.0725	35.6%	
12/24/2018	\$5.1650	\$5.2350	4.81344	0.203776	0.0700	34.4%	
12/26/2018	\$5.1000	\$5.1775	4.81344	0.203246	0.0775	38.1%	
12/27/2018	\$5.1050	\$5.1775	4.80300	0.203197	0.0725	35.7%	
12/28/2018	\$5.1150	\$5.1875	4.79700	0.203226	0.0725	35.7%	
12/31/2018	\$5.0325	\$5.1050	4.80763	0.202646	0.0725	35.8%	
1/2/2019	\$5.0675	\$5.1300	4.79388	0.202813	0.0625	30.8%	
1/3/2019	\$5.1375	\$5.2000	4.79500	0.203391	0.0625	30.7%	
1/4/2019	\$5.1700	\$5.2275	4.80388	0.203733	0.0575	28.2%	
1/7/2019	\$5.1675	\$5.2150	4.79681	0.203651	0.0475	23.3%	
1/8/2019	\$5.1775	\$5.2350	4.78250	0.203607	0.0575	28.2%	
1/9/2019	\$5.2000	\$5.2600	4.79888	0.203933	0.0600	29.4%	
1/10/2019	\$5.1375	\$5.1975	4.79694	0.203408	0.0600	29.5%	
1/11/2019	\$5.1950	\$5.2500	4.78731	0.203791	0.0550	27.0%	
1/14/2019	\$5.1425	\$5.1975	4.77894	0.203292	0.0550	27.1%	
1/15/2019	\$5.1100	\$5.1600	4.77344	0.202981	0.0500	24.6%	
1/16/2019	\$5.1250	\$5.1800	4.78031	0.203162	0.0550	27.1%	
1/17/2019	\$5.1775	\$5.2300	4.77575	0.203548	0.0525	25.8%	
1/18/2019	\$5.1775	\$5.2350	4.76100	0.203418	0.0575	28.3%	
1/22/2019	\$5.2125	\$5.2700	4.77925	0.203862	0.0575	28.2%	
1/23/2019	\$5.2600	\$5.3175	4.77063	0.204170	0.0575	28.2%	
1/24/2019	\$5.2150	\$5.2825	4.76475	0.203754	0.0675	33.1%	
1/25/2019	\$5.2000	\$5.2700	4.75163	0.203517	0.0700	34.4%	
1/28/2019							
1/29/2019							
1/30/2019							
1/31/2019							
2/1/2019							
2/4/2019							
2/5/2019							
2/6/2019							
2/7/2019							
2/8/2019							
2/11/2019							
2/12/2019							
2/13/2019							
2/14/2019							
2/15/2019							
2/19/2019							
2/20/2019							
2/21/2019							
2/22/2019							


Results:

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

If the Running Average Percent of Full Carry on 2/22/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00365 on 3/19/2019

If the Running Average Percent of Full Carry on 2/22/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00265/bu/day on 3/19/2019

If the Running Average Percent of Full Carry on 2/22/2019 is 50% or Less, the Maximum Premium (Storage) Charge will decrease to \$0.00165 on 3/19/2019

2/1/2019

**KANSAS CITY HRW WHEAT VSR**

**Variable Storage Rate March 2019 - May 2019 Calculation Period**

March 2019 First Delivery Day 3/1/2019  
 May 2019 First Delivery Day 5/1/2019  
 Number of Carry Days 61  
 Storage Rate Used in Calculation \$0.00365/bu/day  
 Running Average Percent of Full Carry 41.87%

Date	Mar 2019 Contract Price	May 2019 Contract Price	3M LIBOR Plus 200 Basis Points	Financial Full Carry	Mar19-May 19 Spread	Mar-May Spread as % of Full Carry	
12/19/2018	\$5.0850	\$5.2000	4.78963	0.263919	0.1150	43.6%	0.606949
12/20/2018	\$5.0950	\$5.2075	4.82375	0.264294	0.1125	42.6%	0.160035
12/21/2018	\$5.0275	\$5.1400	4.82163	0.263725	0.1125	42.7%	
12/24/2018	\$5.0250	\$5.1450	4.81344	0.263634	0.1200	45.5%	
12/26/2018	\$4.9550	\$5.0700	4.81344	0.263064	0.1150	43.7%	
12/27/2018	\$4.9500	\$5.0700	4.80300	0.262935	0.1200	45.6%	
12/28/2018	\$4.9600	\$5.0800	4.79700	0.262966	0.1200	45.6%	
12/31/2018	\$4.8875	\$5.0075	4.80763	0.262465	0.1200	45.7%	
1/2/2019	\$4.9250	\$5.0325	4.79388	0.262656	0.1075	40.9%	
1/3/2019	\$5.0350	\$5.1475	4.79500	0.263559	0.1125	42.7%	
1/4/2019	\$5.0600	\$5.1750	4.80388	0.263838	0.1150	43.6%	
1/7/2019	\$5.0300	\$5.1450	4.79681	0.263533	0.1150	43.6%	
1/8/2019	\$5.0500	\$5.1675	4.78250	0.263574	0.1175	44.6%	
1/9/2019	\$5.0550	\$5.1725	4.79888	0.263754	0.1175	44.5%	
1/10/2019	\$4.9875	\$5.1000	4.79694	0.263189	0.1125	42.7%	
1/11/2019	\$5.0450	\$5.1600	4.78731	0.263574	0.1150	43.6%	
1/14/2019	\$4.9900	\$5.1025	4.77984	0.263065	0.1125	42.8%	
1/15/2019	\$4.9550	\$5.0675	4.77344	0.262728	0.1125	42.8%	
1/16/2019	\$4.9550	\$5.0650	4.78031	0.262785	0.1100	41.9%	
1/17/2019	\$5.0400	\$5.1450	4.77575	0.263435	0.1050	39.9%	
1/18/2019	\$5.0600	\$5.1525	4.76100	0.263470	0.0925	35.1%	
1/22/2019	\$5.0975	\$5.1875	4.77925	0.263930	0.0900	34.1%	
1/23/2019	\$5.1500	\$5.2425	4.77063	0.264280	0.0925	35.0%	
1/24/2019	\$5.1150	\$5.2100	4.76475	0.263946	0.0950	36.0%	
1/25/2019	\$5.0950	\$5.1950	4.75163	0.263672	0.1000	37.9%	
1/28/2019							
1/29/2019							
1/30/2019							
1/31/2019							
2/1/2019							
2/4/2019							
2/5/2019							
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2/14/2019							
2/15/2019							
2/19/2019							
2/20/2019							
2/21/2019							
2/22/2019							

Results:

Current Maximum Premium (Storage) Charge: \$0.00365/bu/day

If the Running Average Percent of Full Carry on 2/22/2019 is 80% or greater, the Maximum Premium (Storage) Charge will increase to \$0.00465 on 3/19/2019

If the Running Average Percent of Full Carry on 2/22/2019 is greater than 50% and less than 80%, the Maximum Premium (Storage) Charge will remain at \$0.00365/bu/day on 3/19/2019

If the Running Average Percent of Full Carry on 2/22/2019 is 50% or Less, the Maximum Premium (Storage) Charge will decrease to \$0.00265 on 3/19/2019