QuikStrike Essentials

Option Pricing and Analysis Tool created exclusively for CME Group

QuikStrike®

User Reference Guide

CME Group is excited to partner with QuikStrike to provide customers with an interactive option pricing and analysis tool. This resource provides a view into a large breadth of our options contracts, in addition to visibility into current and historical volatility (by strike), concise volume and open interest information, delta sheets, options pricing analysis, spread analysis & risk graphs.

To ensure a seamless experience, QuikStrike runs easily from any PC, Mac, iPad or smartphone browser including:
PC: Internet Explorer 7+, Chrome, Mozilla Firefox, Safari
Mac: Chrome, Mozilla Firefox, Safari
iPad: Safari preferred
Android: Default Browser, Mozilla
iPhone: Default Browser

Visit **cmegroup.com/quikstrike** for more information.

SETTLEMENTS

Futures Settles » Current settlement prices and open interest compared to prior day's values. Select an individual underlying to review (annual) price chart with corresponding historical open interest and volume bar charts.

Product Settlement Overview » Current call and put settlement prices for each strike for ALL relevant expirations within the currently selected product.

C_N4 Option Settles (23 DTE) vs 472.50 — Settles as of 5/28/2014

Strikes: 10

Call				Put			Volatility		
Change	Prior	Settle	Strike	Settle	Prior	Change	Settle	Prior	Change
2.625	50.125	52.750	420	0.250	0.375	-0.125	23.90	24.04	-0.14
2.625	45.250	47.875	425	0.375	0.500	-0.125	23.43	23.14	0.29
2.625	40.375	43.000	430	0.500	0.750	-0.250	22.48	22.81	-0.33
2.375	35.750	38.125	435	0.625	1.000	-0.375	21.20	21.92	-0.71
2.250	31.250	33.500	440	1.000	1.500	-0.500	21.11	21.74	-0.62
2.000	27.000	29.000	445	1.500	2.250	-0.750	20.84	21.76	-0.93
1.875	22.875	24.750	450	2.250	3.125	-0.875	20.74	21.40	-0.66
1.500	19.250	20.750	455	3.250	4.500	-1.250	20.58	21.63	-1.04
1.375	15.875	17.250	460	4.750	6.250	-1.500	20.89	21.89	-1.00
1.000	13.000	14.000	465	6.500	8.375	-1.875	20.87	22.14	-1.26
0.750	**10.500**	**11.250**	**470**	**8.750**	**10.875**	**-2.125**	**21.09**	**22.24**	**-1.15**
0.625	8.375	9.000	475	11.500	13.625	-2.125	21.51	22.35	-0.84
0.250	6.750	7.000	480	14.500	17.000	-2.500	21.64	22.92	-1.28
0.125	5.375	5.500	485	18.000	20.625	-2.625	22.11	23.38	-1.27
0.000	4.250	4.250	490	21.750	24.500	-2.750	22.46	23.82	-1.36
-0.125	3.375	3.250	495	25.750	28.625	-2.875	22.79	24.34	-1.54
-0.125	2.625	2.500	500	30.000	32.875	-2.875	23.24	24.69	-1.45
-0.250	2.125	1.875	505	34.375	37.250	-2.875	23.52	25.38	-1.87
-0.125	1.625	1.500	510	39.000	41.875	-2.875	24.26	25.64	-1.37
-0.125	1.250	1.125	515	43.625	46.500	-2.875	24.58	25.96	-1.39
-0.125	1.000	0.875	520	48.375	51.250	-2.875	25.11	26.54	-1.43

Figure 1- Corn Settlement Prices

Individual Option Settles » Current (most recent) settlement prices, by strike, compared to prior day's values with change in price, volatility and basis point volatility (for interest rates). Ability to review historical settlements and prior comparisons.

At-The-Money Settles » Current ATM (at-the-money) strike settlement prices compared to prior day's values with change in price, volatility and basis point volatility (for interest rates). Ability to review historical settlements and prior comparisons.

At-The-Money Settles — Settles as of 5/28/2014

Symbol	DTE	Expiration Date	Strike	Future Price			Straddle Price			Volatility		
				Settle	Prior	Change	Settle	Prior	Change	Settle	Prior	Change
PY5K4	2	5/30/2014	470	472.50	469.75	2.75	6.250	8.000	-1.750	21.26	23.53	-2.27
PY1M4	9	6/6/2014	470	472.50	469.75	2.75	12.500	13.250	-0.750	20.90	21.35	-0.45
PY2M4	16	6/13/2014	470	472.50	469.75	2.75	17.750	19.000	-1.250	22.41	23.49	-1.08
C_N4	23	6/20/2014	470	472.50	469.75	2.75	20.000	21.375	-1.375	21.09	22.24	-1.15
CDFN4	23	6/20/2014	470	469.50	465.75	3.75	19.500	21.250	-1.750	20.73	21.92	-1.19
C_Q4	58	7/25/2014	470	469.25	466.25	3.00	41.750	42.500	-0.750	27.97	28.25	-0.28
C_U4	86	8/22/2014	470	469.25	466.25	3.00	50.500	51.000	-0.500	27.80	27.95	-0.16
CDFU4	86	8/22/2014	470	469.50	465.75	3.75	49.500	49.750	-0.250	27.24	27.26	-0.02
C_Z4	177	11/21/2014	470	469.50	465.75	3.75	66.750	66.750	0.000	25.63	25.62	0.00
C_H5	268	2/20/2015	480	478.75	474.75	4.00	78.500	78.500	0.000	24.02	24.04	-0.02
C_K5	331	4/24/2015	480	485.00	481.25	3.75	86.000	86.000	0.000	23.51	23.59	-0.08
C_N5	394	6/26/2015	490	490.75	487.25	3.50	93.250	93.500	-0.250	23.04	23.14	-0.11
C_U5	450	8/21/2015	480	481.50	477.25	4.25	94.500	93.750	0.750	22.30	22.19	0.11
C_Z5	541	11/20/2015	470	474.00	470.50	3.50	90.500	90.000	0.500	19.85	19.81	0.04
C_N6	758	6/24/2016	490	488.00	484.25	3.75	98.500	99.625	-1.125	17.70	17.97	-0.27
Symbol	DTE	Expiration Date	Strike	Settle	Prior	Change	Settle	Prior	Change	Settle	Prior	Change
				Future Price			Straddle Price			Volatility		

Figure 2- Corn At-The-Money Settlement Price

PRICING SHEETS

Standard Pricing Sheet » This sheet contains the call and put option prices given the current volatility (implied from the option's most recent settlement price) and the latest underlying future's settlement price. Note that current prices are presented adjacent to the latest settlement prices for each option. Prices will differ from settlement values when viewed on any day after the most recent market close given they have been valued with one less day to expiration. Call and put Delta, Gamma, Vega and Theta values are present for each strike along with the implied volatility (with alternate volatility values present for interest rate products). Click on any Greek value column header in to display a popup with explanations on how to use each Greek value. Examples use the current Greek values for the ATM strike to present more practical calculations.

LEM4 Prices (8 DTE) vs 136.150 (+0.000) Settles as of 5/28/2014

Strikes: 10

Volatility	Delta	Call Settle	Call	Strike	Put	Put Settle	Delta	Straddle	Gamma	Vega	Theta
22.78	100	10.150	**10.150**	126	**0.016**	0.000	-1	10.166	0.60	0.01	-0.01
20.75	100	9.150	**9.150**	127	**0.016**	0.000	-1	9.166	0.71	0.01	-0.01
18.71	100	8.175	**8.150**	128	**0.016**	0.025	-1	8.166	0.86	0.01	-0.01
16.67	100	7.175	**7.150**	129	**0.017**	0.025	-1	7.167	1.06	0.01	-0.01
16.43	95	6.200	**6.159**	130	**0.036**	0.050	-3	6.194	1.93	0.01	-0.01
14.16	95	5.200	**5.167**	131	**0.036**	0.050	-3	5.203	2.53	0.01	-0.01
11.86	95	4.200	**4.174**	132	**0.037**	0.050	-4	4.211	3.47	0.02	-0.01
9.49	94	3.200	**3.180**	133	**0.038**	0.050	-5	3.218	5.15	0.02	-0.01
8.43	90	2.250	**2.229**	134	**0.081**	0.100	-10	2.310	10.33	0.04	-0.02
7.95	77	1.400	**1.369**	135	**0.220**	0.250	-23	1.589	19.12	0.06	-0.03
7.30	**54**	**0.700**	**0.665**	**136**	**0.515**	**0.550**	**-46**	**1.179**	**26.95**	**0.08**	**-0.04**
7.44	29	0.300	**0.269**	137	**1.118**	1.150	-71	1.387	22.74	0.07	-0.03
8.52	14	0.150	**0.126**	138	**1.974**	2.000	-85	2.100	13.19	0.05	-0.02
9.43	7	0.075	**0.059**	139	**2.904**	2.925	-92	2.962	7.06	0.03	-0.02
10.84	4	0.050	**0.037**	140	**3.876**	3.900	-94	3.913	4.10	0.02	-0.01
11.50	2	0.025	**0.017**	141	**4.850**	4.875	-100	4.867	2.12	0.01	-0.01
13.41	2	0.025	**0.017**	142	**5.850**	5.875	-100	5.867	1.60	0.01	-0.01
15.27	2	0.025	**0.017**	143	**6.850**	6.875	-100	6.867	1.26	0.01	-0.01
17.08	1	0.025	**0.017**	144	**7.850**	7.875	-100	7.867	1.02	0.01	-0.01
18.86	1	0.025	**0.016**	145	**8.850**	8.875	-100	8.866	0.85	0.01	-0.01
20.63	1	0.000	**0.016**	146	**9.850**	9.850	-100	9.866	0.73	0.01	-0.01
Volatility	**Delta**	**Call Settle**	**Call**	**Strike**	**Put**	**Put Settle**	**Delta**	**Straddle**	**Gamma**	**Vega**	**Theta**

Figure 3- Live Cattle Pricing Sheet

Call Sheet » Settlement-based call prices and Greeks with current volatility and basis point volatility (for Interest Rates). This pricing sheet is similar to the Standard Pricing Sheet in terms of values are calculated and what information is available except that Put and Put Delta are not present.

Put Sheet » Settlement-based call prices and Greeks with current volatility and basis point volatility (for Interest Rates). This pricing sheet is similar to the Standard Pricing Sheet in terms of values are calculated and what information is available except that Call and Call Delta are not present.

LEM4 Puts (8 DTE) vs 136.150 (+0.000) Settles as of 5/28/2014

Strikes: 5

Volatility	Strike	Put	Delta	Gamma	Vega	Theta
14.16	131	**0.036**	-3	2.53	0.01	-0.01
11.86	132	**0.037**	-4	3.47	0.02	-0.01
9.49	133	**0.038**	-5	5.15	0.02	-0.01
8.43	134	**0.081**	-10	10.33	0.04	-0.02
7.95	135	**0.220**	-23	19.12	0.06	-0.03
7.30	**136**	**0.515**	**-46**	**26.95**	**0.08**	**-0.04**
7.44	137	**1.118**	-71	22.74	0.07	-0.03
8.52	138	**1.974**	-85	13.19	0.05	-0.02
9.43	139	**2.904**	-92	7.06	0.03	-0.02
10.84	140	**3.876**	-94	4.10	0.02	-0.01

Figure 4- Live Cattle Put Pricing Sheet

OPEN INTEREST AND VOLUME

DCK4 High Activity Strikes — Preliminary values available at 4:30a CST, finals available at 10:30a CST

Max Change for Class III Milk: 200 — Trade Date: << Prev Wed, May 28, 2014 Next >>

	Open Interest	Strikes Up	Strikes Down	Net Change
Calls	3,989	0	2	(19)
Puts	8,242	1	0	2
Combined	12,231	1	2	(17)

Calls – Top 10 Change

Strike Price	Volume	Open Interest Prior	Open Interest 5/28/2014	Open Interest Change
22.25	0	101	86	(15)
22.00	0	244	240	(4)
8.50	0	0	0	
8.75	0	0	0	
9.00	0	0	0	
9.25	0	0	0	
9.50	0	0	0	
9.75	0	0	0	
10.00	0	0	0	
10.25	0	0	0	

Puts – Top 10 Change

Strike Price	Volume	Open Interest Prior	Open Interest 5/28/2014	Open Interest Change
22.50	**2**	**87**	**89**	**2**
8.50	0	0	0	
8.75	0	0	0	
9.00	0	0	0	
9.25	0	0	0	
9.50	0	0	0	
9.75	0	0	0	
10.00	0	0	0	
10.25	0	0	0	
10.50	0	0	0	

Combined – Top 10 Change

Strike Price	Type	Volume	Open Interest Prior	Open Interest 5/28/2014	Open Interest Change
22.25	C	0	101	86	(15)
22.00	C	0	244	240	(4)
22.50	**P**	**2**	**87**	**89**	**2**
8.50	C	0	0	0	
8.50	P	0	0	0	
8.75	C	0	0	0	
8.75	P	0	0	0	
9.00	C	0	0	0	
9.00	P	0	0	0	
9.25	C	0	0	0	

Figure 5- Class III Milk High Activity Strikes

Most Actives » Open interest top ten ranking for calls, puts and combined calls and puts for current expiration. Top ten summaries for the expiration's logical group (if applicable) and the overall product. View total open interest within each grouping as well as indicators for number of strikes with increasing/decreasing open interest totals.

DCK4 Strike Level Detail — Preliminary values available at 4:30a CST, finals available at 10:30a CST

Strikes: 10 Filter: (None) — Max Change for Class III Milk: 200 — Trade Date: << Prev Wed, May 28, 2014 Next >>

Calls

Strike Price	Volume	Open Interest Prior	Open Interest 5/28/2014	Open Interest Change	Change Chart
20.00	0	131	131		
20.25	0	56	56		
20.50	0	125	125		
20.75	0	40	40		
21.00	0	181	181		
21.25	0	82	82		
21.50	0	217	217		
21.75	0	91	91		
22.00	0	244	240	(4)	
22.25	0	101	86	(15)	
22.50	**0**	**306**	**306**		
22.75	0	213	213		
23.00	0	379	379		
23.25	0	76	76		
23.50	0	261	261		
23.75	0	31	31		
24.00	0	53	53		
24.25	0	14	14		
24.50	0	0	0		
24.75	0	0	0		
25.00	0	0	0		

Puts

Strike Price	Volume	Open Interest Prior	Open Interest 5/28/2014	Open Interest Change	Change Chart
20.00	0	454	454		
20.25	0	92	92		
20.50	0	610	610		
20.75	0	46	46		
21.00	0	345	345		
21.25	0	178	178		
21.50	0	263	263		
21.75	0	77	77		
22.00	0	360	360		
22.25	0	135	135		
22.50	**2**	**87**	**89**	**2**	
22.75	0	151	151		
23.00	0	70	70		
23.25	0	0	0		
23.50	0	0	0		
23.75	0	0	0		
24.00	0	0	0		
24.25	0	0	0		
24.50	0	0	0		
24.75	0	0	0		
25.00	0	0	0		

Figure 6- Class III Milk Strike Level Detail

Strike Level Detail » Open interest, change in open interest and volume (by strike) for current expiration. displayed both numerically and in an easy-to-read chart format. Historical information available as well.

Historical Charts » Strike-based open interest and volume historical charts for each expiration. Select from one to 12 month historical timeframes.

TRADE EXAMPLES

Figure 7- Call and Put Trade Examples

Calls » Lists long (buy) and short (sell) examples of the more common spreads containing calls. View breakeven chart with simple explanation of position, analysis and Greeks. Click the View link to display popup with trade position description, profit/loss analysis, a brief explanation of the position's Greek values and sensitivities as well as a breakeven chart using actual strikes from the currently selected expiration. Click the Build link to direct the browser to the QuikStrike Essentials Trade Builder page with this position populated and displayed for even further analysis or manipulation.

Puts » Lists long (buy) and short (sell) examples of the more common spreads containing puts. View breakeven chart with simple explanation of position, analysis and Greeks. Click the View link to display popup with trade position description, profit/loss analysis, a brief explanation of the position's Greek values and sensitivities as well as a breakeven chart using actual strikes from the currently selected expiration. Click the Build link to direct the browser to the QuikStrike Essentials Trade Builder page with this position populated and displayed for even further analysis or manipulation.

Call & Put Combinations » Lists long (buy) and short (sell) examples of the more common spreads containing combinations of calls and puts. View breakeven chart with simple explanation of position, analysis and Greeks. Click the View link to display popup with trade position description, profit/loss analysis, a brief explanation of the position's Greek values and sensitivities as well as a breakeven chart using actual strikes from the currently selected expiration. Click the Build link to direct the browser to the QuikStrike Essentials Trade Builder page with this position populated and displayed for even further analysis or manipulation.

PRICING TOOLS

Simple Option Calculator » Calculate prices and Greeks using a strike's current volatility or imply volatility from the current (or any) option price. Manipulate the futures price, days to expiration or interest rate. The ATM strike (for each expiration) is highlighted and selected by default. The Option Type selection is set based on whether the selected strike is the current ATM (S), an out-of-the-money put (P) or an out-of-the-money call (C). By clicking a strike from the list on the left, the calculator will be seeded with that strike's current values. Once the calculator values have been entered, press the Calc Price or Calc Vol buttons to display any new values and the corresponding Greeks for the current calculation.

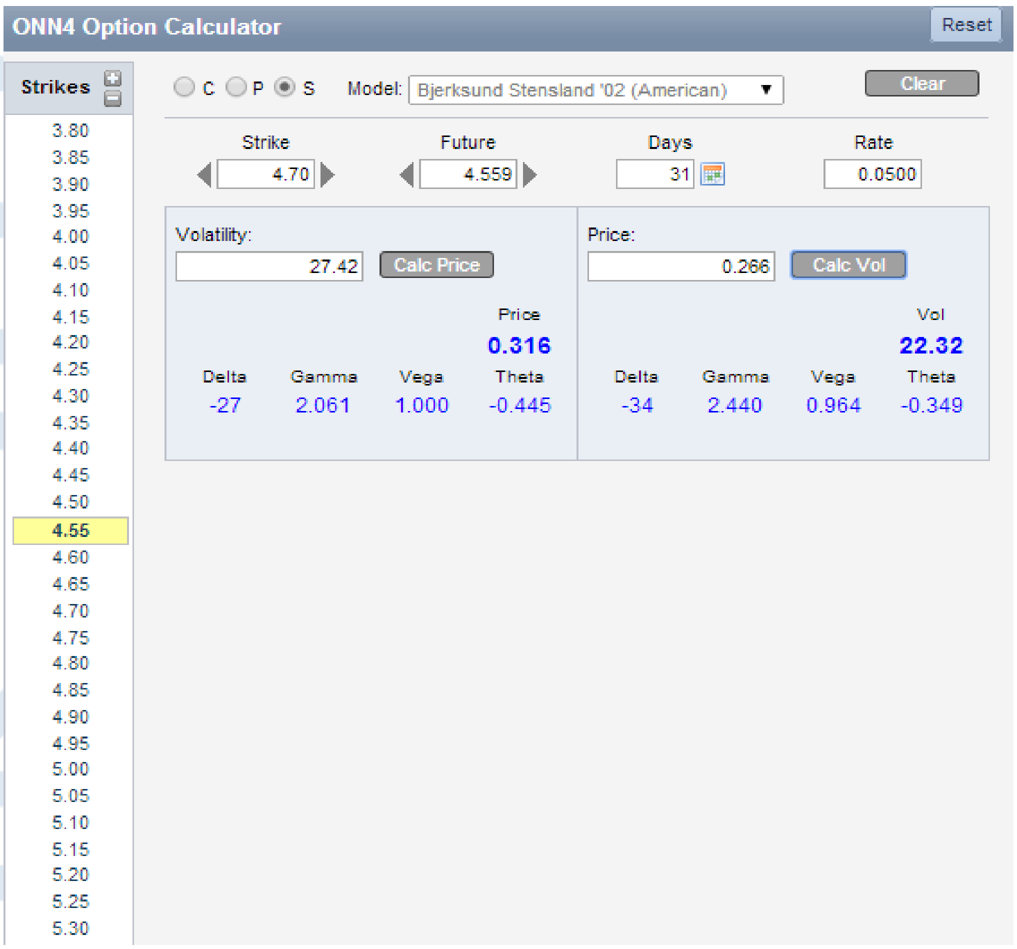


Figure 8- Simple Option Calculator

(Quik)Spread Builder » Build any (intra-month) spread and view breakeven charts and Greeks. Invert trade position with a single click. Hedge or a cover a trade. To build a spread, simply click the left or right arrows next to any textbox in the call or put columns. Once the desired position has been entered, click the Calculate button to view a summary (the Data tab) containing the overall position, total Greeks, current premium value and value of spread at different time intervals in the future as well as maximum and minimum profit and loss values. Click the Chart tab to view the position's breakeven chart and mini charts for all the Greek values. The New button will clear the position and the +/- button will invert the trade (turning a long position into a short and vice versa). On the same line as the Calculate button (and appearing after a position's values have been displayed) is the Hedge button. Clicking this button will add an underlying futures position that offsets the current Delta of the entered options allowing you to view both the outright position and the hedged position with the click of a button. A Clear button will be displayed (after clicking Hedge). Click this to remove the underlying futures position that the Hedge button inserted.

VOL TOOLS

Vol Charts » This page displays a volatility chart for currently selected expiration. Volatilities are implied from the most recent option (and future) settlement prices. Hover over any strike to view the strike and volatility value.

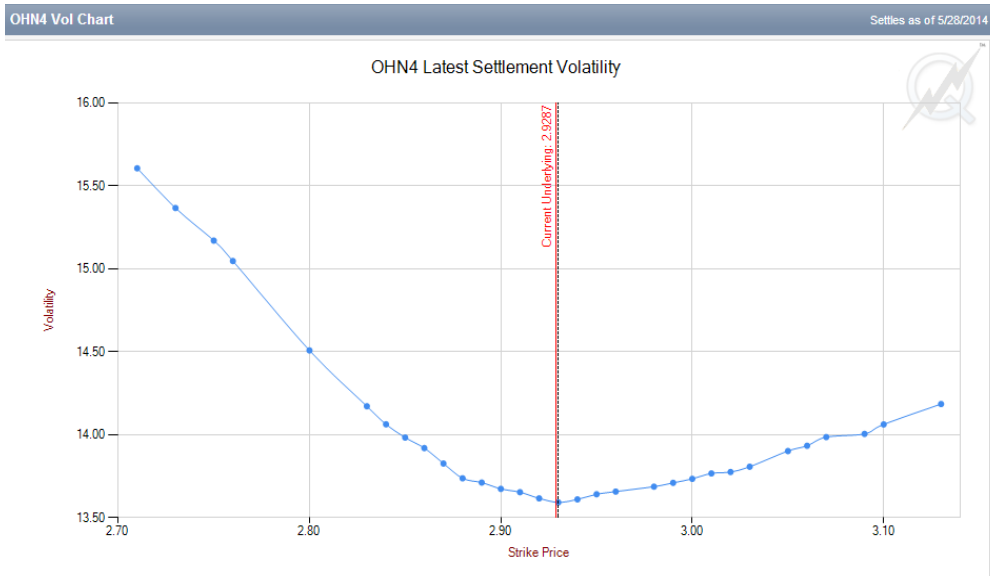
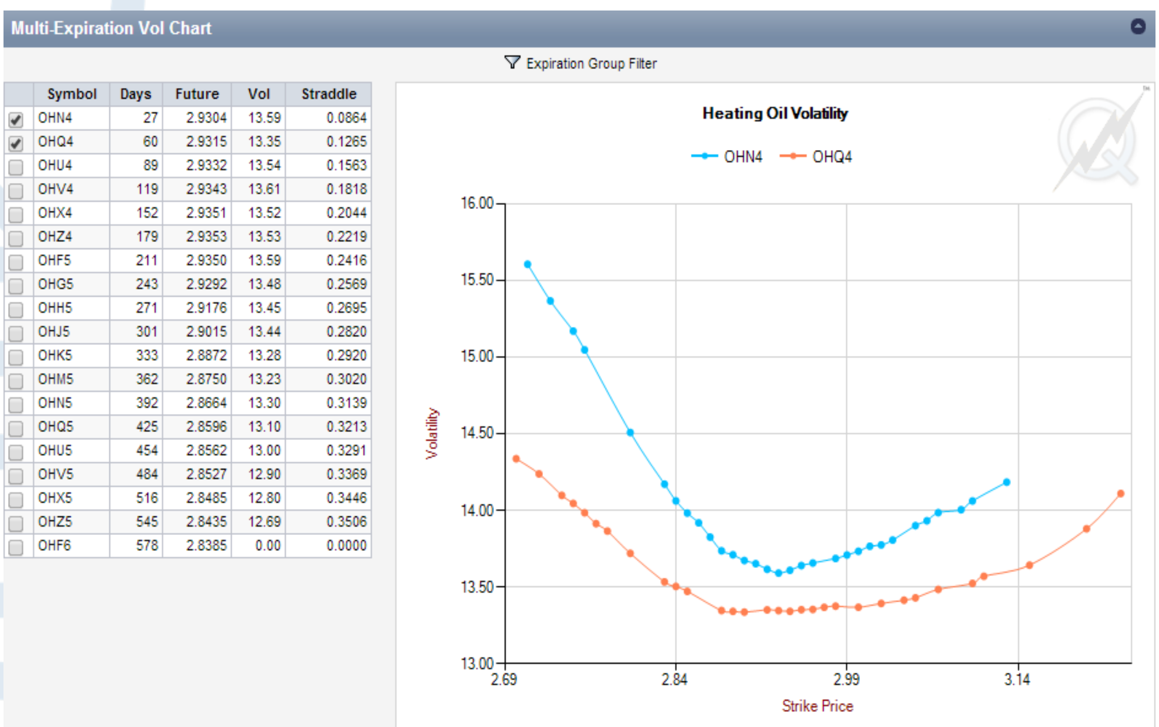


Figure 9- Heating Oil Vol Chart

Multi-Expiration Vol Chart » Plot and compare multiple volatility curves on a single chart. Check any box on the expiration list to the left to display that expirations current implied volatility curve. Product groups with a larger number of expirations (like Eurodollars) or some other logical option grouping (like Corn) will also have an Expiration Group Filter link displayed on the center of this page. Click the filter link to limit or expand which groups of expirations will be displayed.



	Symbol	Days	Future	Vol	Straddle
✓	OHN4	27	2.9304	13.59	0.0864
✓	OHQ4	60	2.9315	13.35	0.1265
	OHU4	89	2.9332	13.54	0.1563
	OHV4	119	2.9343	13.61	0.1818
	OHX4	152	2.9351	13.52	0.2044
	OHZ4	179	2.9353	13.53	0.2219
	OHF5	211	2.9350	13.59	0.2416
	OHG5	243	2.9292	13.48	0.2569
	OHH5	271	2.9176	13.45	0.2695
	OHJ5	301	2.9015	13.44	0.2820
	OHK5	333	2.8872	13.28	0.2920
	OHM5	362	2.8750	13.23	0.3020
	OHN5	392	2.8664	13.30	0.3139
	OHQ5	425	2.8596	13.10	0.3213
	OHU5	454	2.8562	13.00	0.3291
	OHV5	484	2.8527	12.90	0.3369
	OHX5	516	2.8485	12.80	0.3446
	OHZ5	545	2.8435	12.69	0.3506
	OHF6	578	2.8385	0.00	0.0000

Figure 10- Heating Oil Multi-Expiration Vol Chart

RESOURCE INFORMATION

To view the QuikStrike product list, click here.

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