

# How Speculators Use Options

**Sue Goll**

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**Sue Goll, Agricultural Consultant**

# Long Cattle Futures

**You are a speculator and believe that cattle prices will go higher.  
Based on this belief, you buy cattle futures.**

**August 11                      Buy futures @ 106/cwt**

**August 14                      Sell futures @ 109/cwt**

**Result: \$3/cwt profit**

**What if prices instead fell**

**August 11                      Buy futures @ 106/cwt**

**August 12                      Sell futures @ 105/cwt**

**Result: \$1/cwt loss**

# Short Cattle Futures

**You are a speculator and believe that cattle prices will fall. Based on this belief, you sell cattle futures.**

**August 11                      Sell futures @ 106/cwt**

**August 13                      Buy futures @ 104/cwt**

**Result: \$2/cwt profit**

**What if prices instead rallied**

**August 11                      Sell futures @ 106/cwt**

**August 12                      Buy futures @ 107/cwt**

**Result: \$1/cwt loss**

# Selling Premium

**Speculator believes market will trade sideways or in a specific direction with decreasing volatility**

**To take advantage of such a market, an option is sold**

**Speculator expects to keep all or most of premium**

**Time decay works in favor of the position**

# Short Soybean Oil Put

**August 8**

**October soybean oil = 50.87**

**47 BOV put: 105 points (each point = \$6 per contract)**

**Assumptions:**

**Soybean oil will trade sideways to higher over the next 30 days.**

**Volatility will fall.**

**Action:**

**Sell 47 BOV put @ 110 pts.**

# Short Soybean Oil Put

Soybean Oil Futures: 50.00

Volatility unchanged

Date

Put Premium

8/22

103 pts.

9/5

62

9/12

39

9/18

17



# Long Straddle

**Position: Buy a put and buy a call in the same commodity, same expiration month and at the same strike**

**Total cost = premium paid**

**Greatest loss = premium paid**

**Anticipating a big move in either direction with increasing volatility**

**Speculators are buying volatility when they buy a straddle**

**Time decay works against the strategy**

# Long Lean Hog Straddle at expiration

Futures: 75.32 LHZ

Buy: 76.00 Dec lean hog call @ 385

76.00 Dec lean hog put @ 452

Total cost: 837/cwt

<u>Dec futures</u>	<u>Profit/Loss</u>
66.00	+163
67.63	0
76.00	-837
84.37	0
86.00	+163

# Long Corn Straddle

**Futures: 5.1825 CZ**

**Buy 5.20 Call @ .41 1/8**

**Buy 5.20 Put @ .42 7/8**

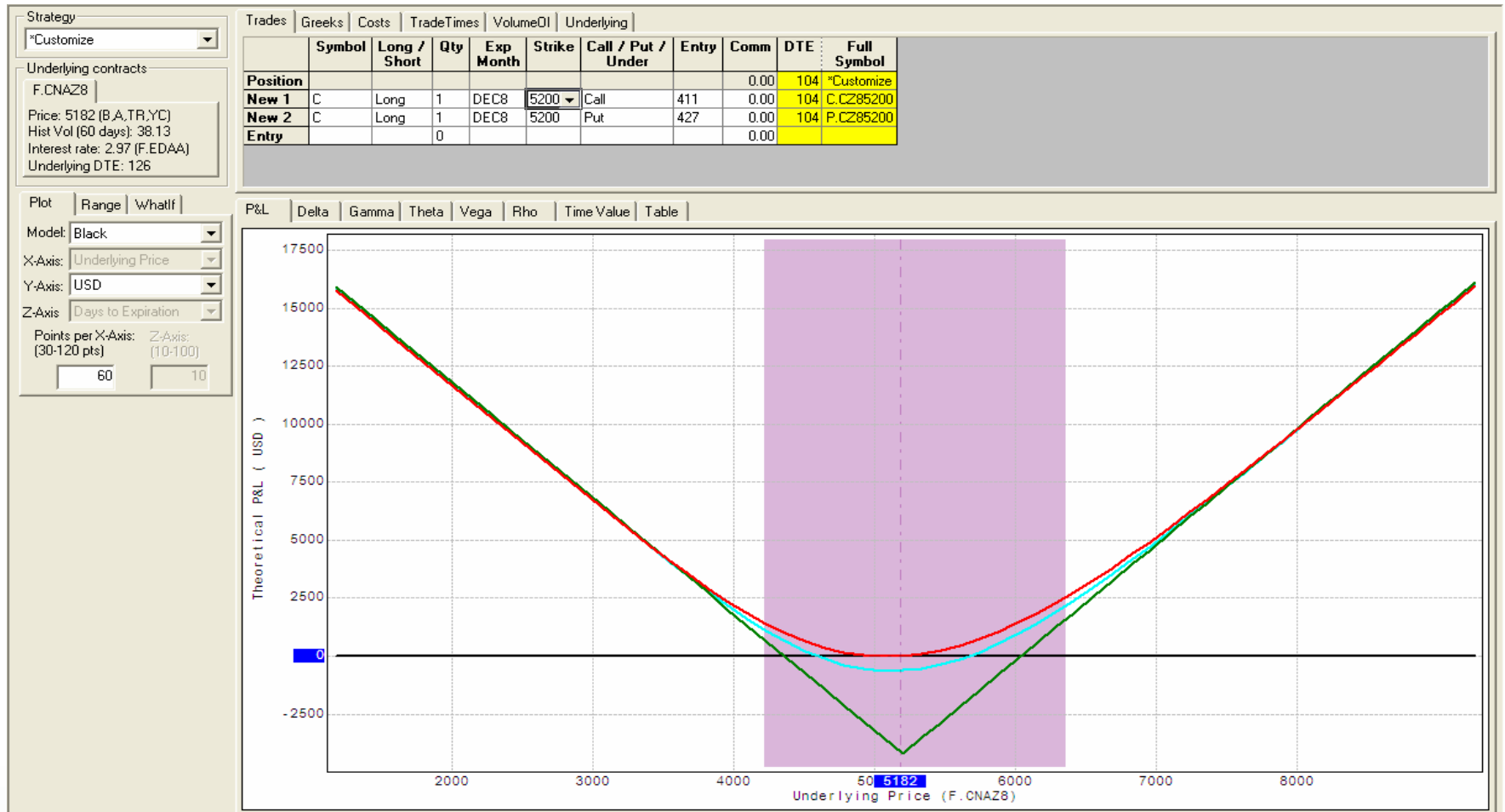
**Total Cost: .84 cents**

**Breakevens : 6.04 & 4.36**

**Profit: If corn goes higher or lower by more than .84 and/or volatility increases**

# Long Corn Straddle

## price changes, no change in volatility

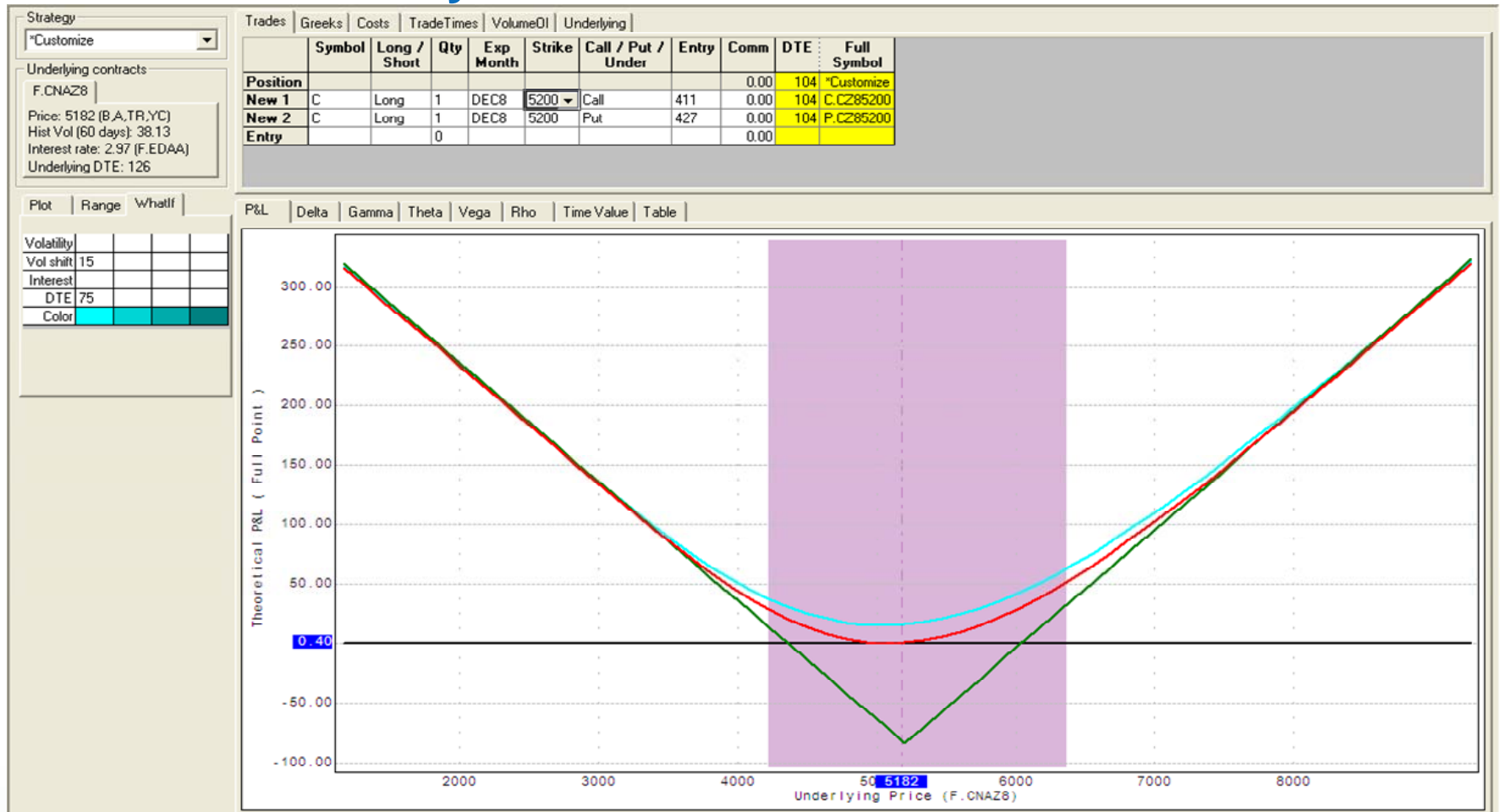


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Sat Aug 09 2008 13:53:53

# Long Corn Straddle

## Increased volatility



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Sat Aug 09 2008 14:09:48

# Short Straddle

**Position: Sell a put and sell a call in the same commodity, same expiration month and at the same strike**

**Total gain = premium earned**

**Loss potential is high & theoretically unlimited**

**Anticipating little movement in either direction with decreasing volatility**

**Speculator is selling volatility**

**Time decay works in favor of the strategy**

# Short Soybean Meal Straddle at expiration

Futures: \$313 SMZ

Sell: December 310 meal call @ 24.75

December 310 meal put @ 28.05

Premium earned: \$52.80/ton

<u>Dec futures</u>	<u>Profit/Loss</u>
200	-57.20
257.2	0
310	+52.80
362.80	0
385	-22.20

# Short Corn Straddle

**Futures: 5.1825 CZ**

**Sell 5.20 Call @ .41 1/8**

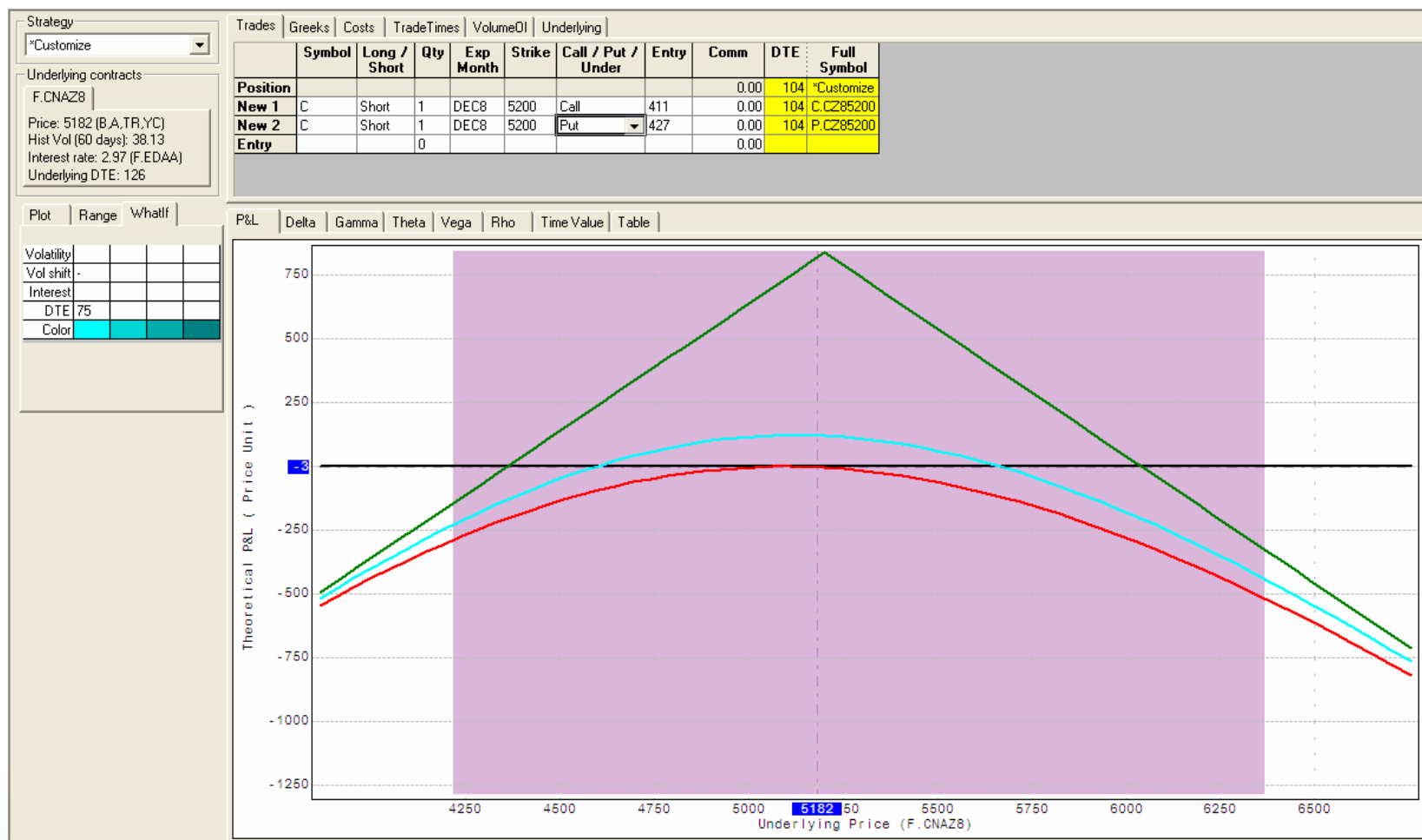
**Sell 5.20 Put @ .42 7/8**

**Premium earned: .84 cents**

**Profit: If corn remains stable and/or volatility decreases**



# Short Corn Straddle

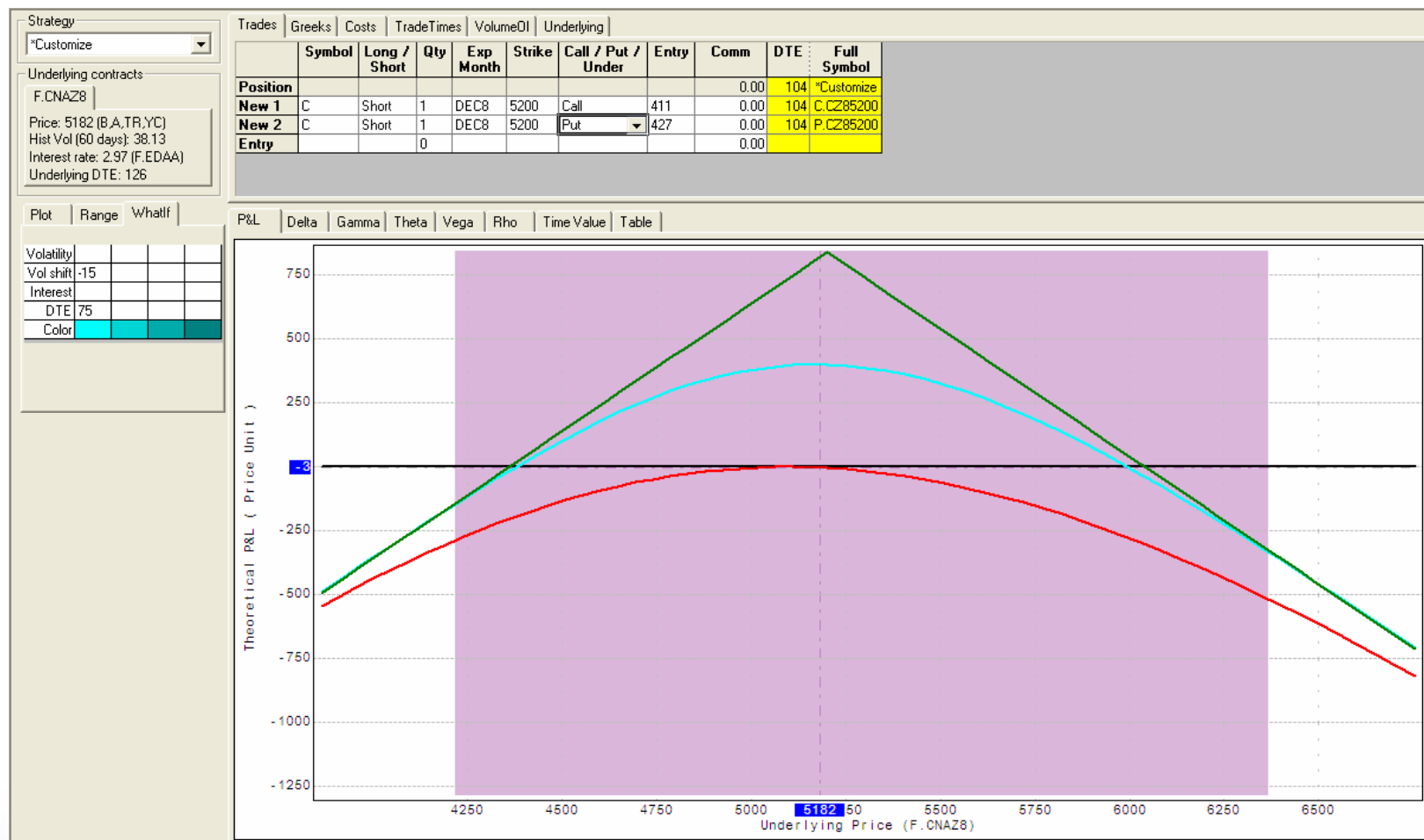


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# Short Corn Straddle

## Decreasing volatility



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# Long Strangle

**Position: Buy an out-of the money call and out-of-the money put in the same commodity and delivery month**

**Total cost: Premium paid**

**Greatest loss: Premium Paid**

**Anticipating big move in price in either direction and increased volatility**

**Speculators are buying volatility when they buy strangles**

**Time decay works against the strategy**

**A strangle works the same as a straddle but has a lower cost**

**The reduction in premium has a price—a need for a greater move in price**

# Long Bean Strangle at expiration

**Futures:** 11.80 SX

**Buy:** 12.60 call @ 59 cents  
11.00 put @ 53 cents

**Total cost:** 1.12 cents

<u>Nov futures</u>	<u>Profit/Loss</u>
--------------------	--------------------

9.00	+.88
9.88	0
11.00	-1.12
12.60	-1.12
13.72	0
14.50	+.78

# Long Wheat Strangle

**Futures: 7.9025**

**Buy 8.30 call @  $.53 \frac{1}{4}$**

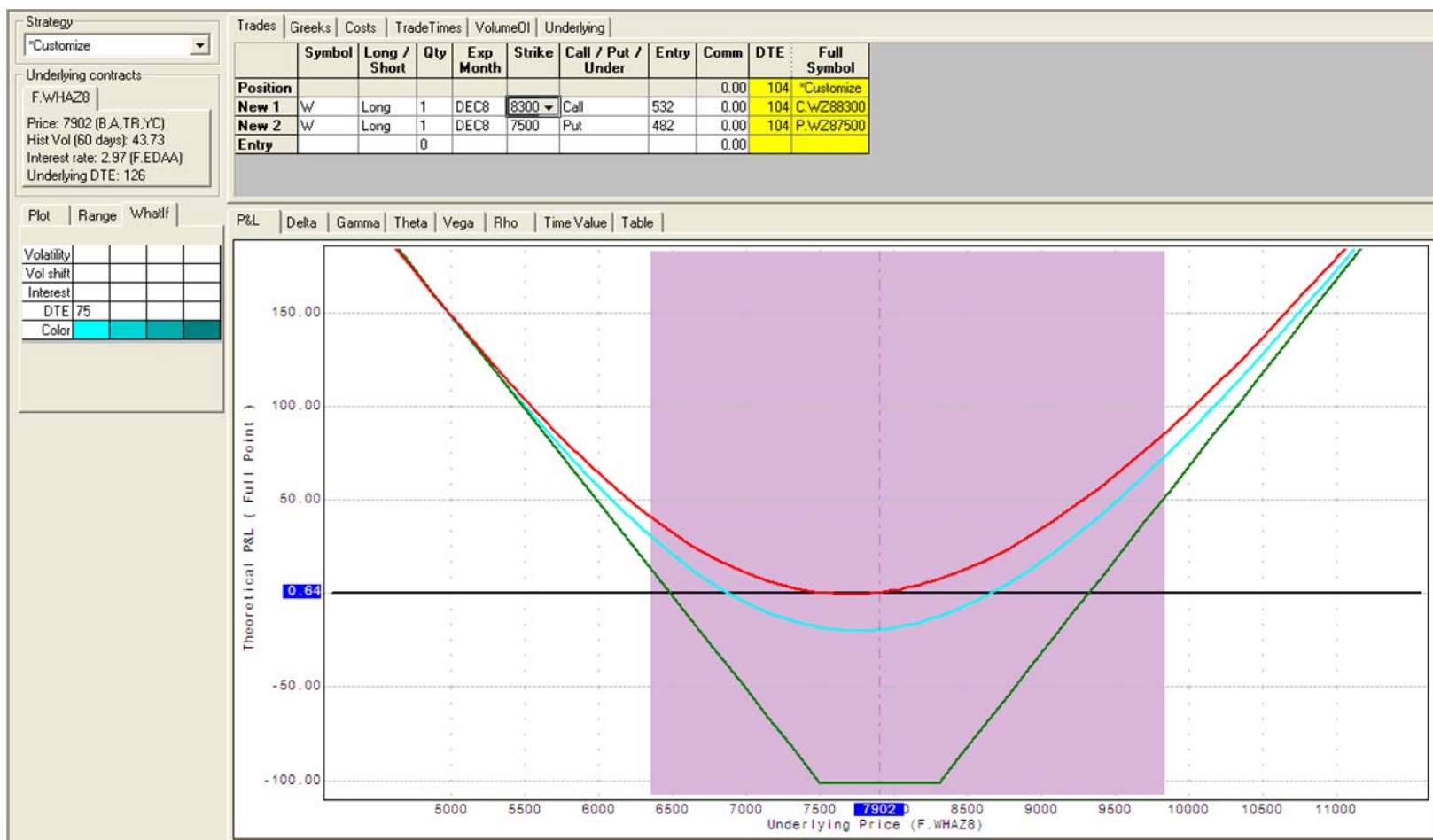
**Buy 7.50 put @  $.48 \frac{1}{4}$**

**Total cost:  $1.01 \frac{1}{2}$**

**Breakevens:  $9.31 \frac{1}{2}$  &  $6.48 \frac{1}{2}$**

**Profit: If wheat goes higher or lower by more than  $1.01 \frac{1}{2}$  and/or volatility increases**

# Long Wheat Strangle

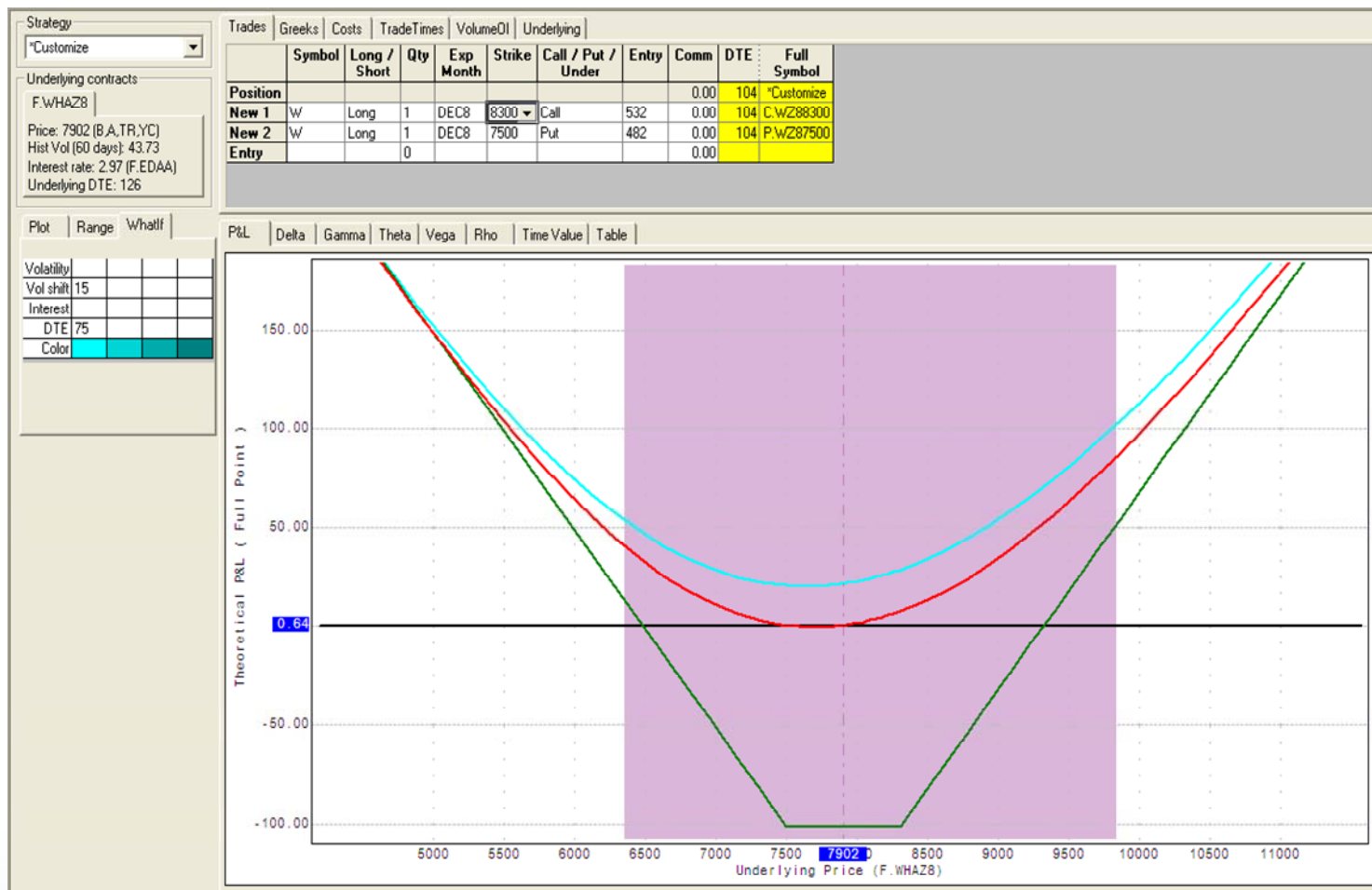


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# Long Wheat Strangle

## With increased volatility



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# Short Strangle

**Position: Sell an out-of-the money call and an out-of-the money put in the same commodity and expiration month**

**Total gain = premium earned**

**Loss potential is high & theoretically unlimited**

**Anticipating little movement in either direction with decreasing volatility**

**Speculator is selling volatility**

**Time decay works in favor of the strategy**

**Strangle gives the seller a wider margin of safety than the short straddle but earns less premium**



## Short Live Cattle Strangle

### At expiration

Dec futures: 107.50 LCZ

Sell: 110.00 Dec live cattle call for 300

105 Dec live cattle put for 292 cents

Premium earned: 592

<u>Dec futures</u>	<u>Profit/Loss</u>
--------------------	--------------------

98.00	-108
-------	------

99.08	0
-------	---

107.5	+592
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115.92	0
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117.00	-108
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# Short Wheat Strangle

**Futures: 7.9025**

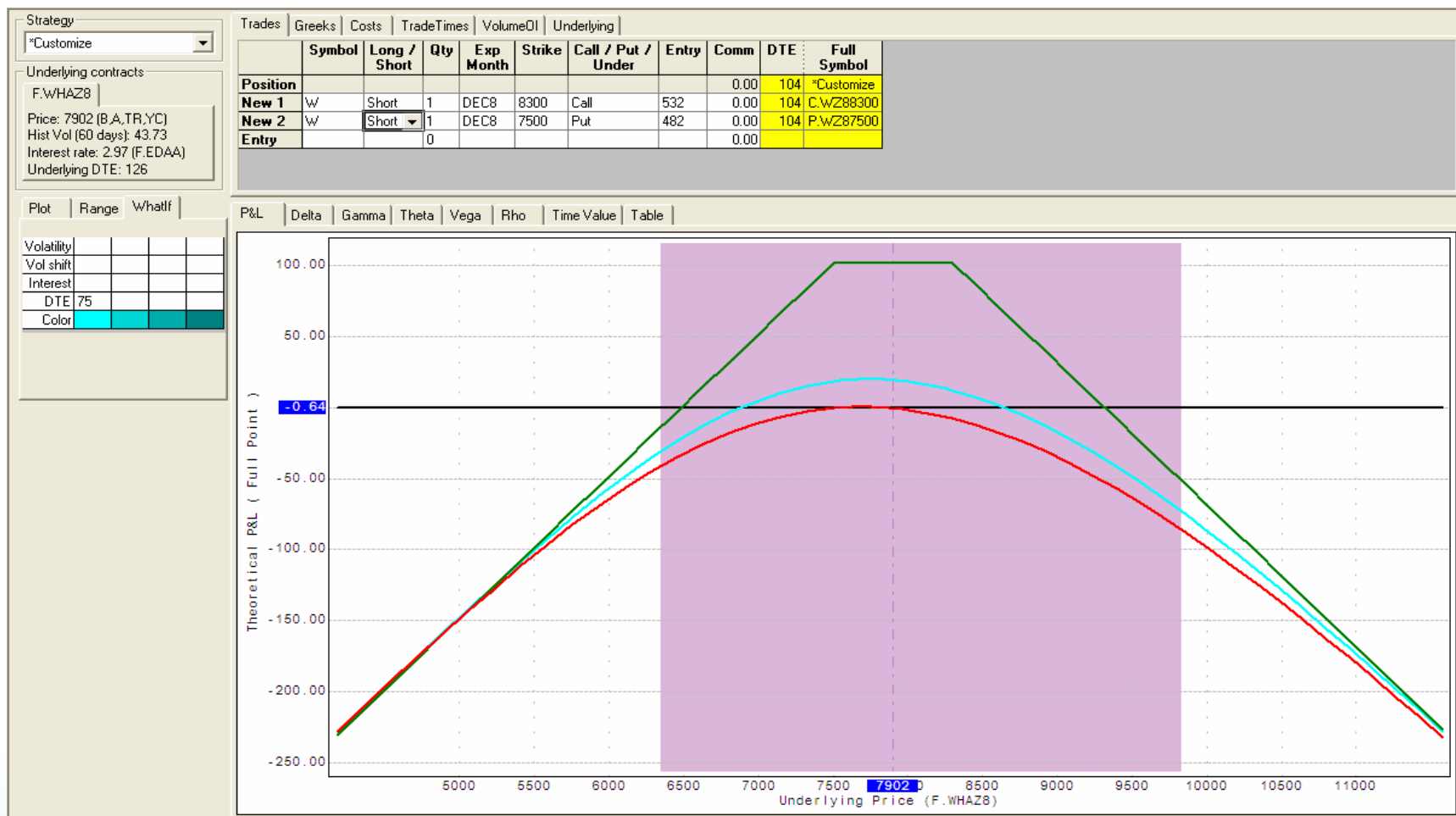
**Sell 8.30 call @ .53  $\frac{1}{4}$**

**Sell 7.50 put @ .48  $\frac{1}{4}$**

**Premium earned: 1.01  $\frac{1}{2}$**

**Profit: If wheat price is stable and/or volatility decreases.**

# Short Wheat Strangle

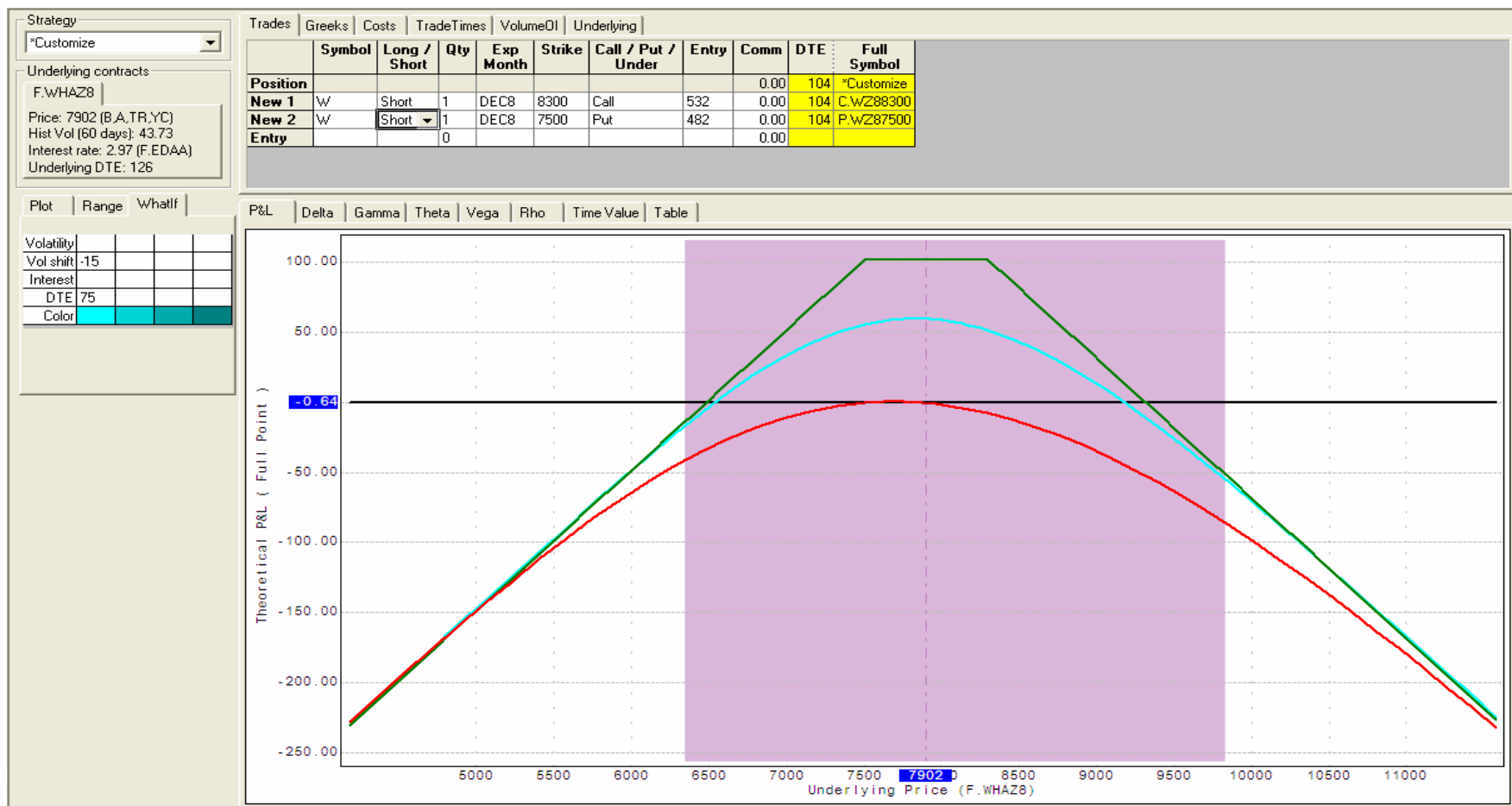


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# Short Wheat Strangle

## Decreasing Volatility



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# Delta

The measurement of movement in an options premium relative to a move in the price of the underlying futures. A call's delta is quoted as a positive number and a put's as a negative number.

As the underlying futures price moves, so will the delta. An “at-the-money” option will move approximately one half the value of a futures move. An option “deep-in-the-money” will have a delta near or equal to 1.00 (-1.00). An option “out-of-the-money” will have a delta approaching zero as it continues to move in that direction.

# Trading in a Price Range

**You believe that wheat prices will trade in a range and volatility will remain stable.**

**Strategy:**

**Buy futures**

**Buy puts**

**Projected range:**

**WH: 7.91**

**WH: 30 cents range for next 90 days**

**\$7.80 - 8.10**

# August 8

## Action:

**Buy 100 March wheat 7.80 puts @ 72 cents**

**delta = 38**

**Buy 38 March wheat futures @ 7.91**

**Will manage position by periodically adjusting futures to the option delta**

# August 15

March wheat = \$7.85

March 7.80 put = 84 cents

delta = 42

**Action:**

**Buy 4 March futures @ \$7.85**



# August 25

**March wheat = \$8.00**

**March 7.80 put = 75 cents**

**delta = 40**

**Action:**

**Sell 2 March wheat @ \$8.00**

# September 5

March wheat = \$7.80

March 7.80 put = 81 cents

delta = 45

Action:

Buy 5 March wheat @ \$7.80

# September 25

March wheat = \$8.10

March 7.80 put = 64 cents

delta = 38

**Action:**

**Sell 7 March futures @ \$8.10**

# October 1

**March wheat = \$7.95**

**March 7.80 put = 70 cents**

**Action:**

**Exit trade**

**Sell 100 March 7.80 puts @ 70 cents**

**Sell 38 March wheat @ \$7.95**

# Futures Activity

## Buy:

38 @ 7.91

4 @ 7.85

5 @ 7.80

average buy

**\$7.8925**

## Sell:

2 @ 8.00

7 @ 8.10

38 @ 7.95

average sell

**\$7.975**

# Total Profit

## Futures:

- Average purchase price:  $7.89 \frac{1}{4}$
- Average sale price:  $7.97 \frac{1}{2}$
- Net gain:  $8 \frac{1}{4}$  cents per bu.
- $8.25 \times \$50 \times 47 \text{ contracts} = \$19,387.50 \text{ profit}$

## Options :

### Bought @ 72, sold @ 70 cents

- Net loss: 2 cents per bu.
- $2 \times \$50 \times 100 \text{ contracts} = \$10,000 \text{ loss}$

**Net gain \$9,387.50**

# Potential Problems

1. Volatility decreasing
2. Time decay

- Need to manage this strategy - adjusting futures position to delta.
- Adjust position based on your parameters
- Balance between opportunity and brokerage fee

# Sue speaks on a wide variety of subjects including:

## Ag Cash Markets

- World Markets Fundamentals
- Processing
- Grain Flow/Transportation
- Cash Grain Trade
- Grain Merchandising Tools
- Grain Contracts
- Ag Policy
- Major Market Reports
- USDA Supply & Demand Report Analysis

## Futures & Options Markets, Hedging

- History & Development of Futures
- Futures Organization & Regulation
- Clearing & Margining Process
- Hedging Fundamentals & Basis Trading
- Spreads
- Hedging & Spread Applications for the Merchandiser
- Market Analysis
- Options
- Options Applications, both introductory and advanced

**Sue Goll, Agricultural Consultant**



**Sue Goll is an agricultural consultant with over 25 years of experience as a cash grain merchandiser and futures industry participant. She worked at A.E. Staley for over six years as a grain merchandiser, trading beans, meal and corn out of Des Moines, Iowa, and Lafayette, Indiana.**

**While in Lafayette, Sue oversaw grain merchandising, truck and rail logistics and originated corn for two wet milling plants. She also handled offsetting hedge and spread strategies for the Lafayette futures position.**

**Sue spent the next two years as a farm market advisor for a farm advisory firm assisting producers in marketing their crops.**

**She joined the Chicago Board of Trade in 1989. During her six years with the exchange, Sue traveled worldwide teaching the use of agricultural futures and options markets. Additionally, she specialized in the development of educational materials and booklets for the commercial hedger.**

**Sue has been self-employed as a consultant since 1995. In this capacity, she works with domestic and foreign businesses teaching cash/physical market fundamentals, the practical use of futures and options, and writing technical materials.**

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**E-Livestock Real-Time Quotes:** [www.cmegroup.com/elivestockquotes](http://www.cmegroup.com/elivestockquotes)

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