

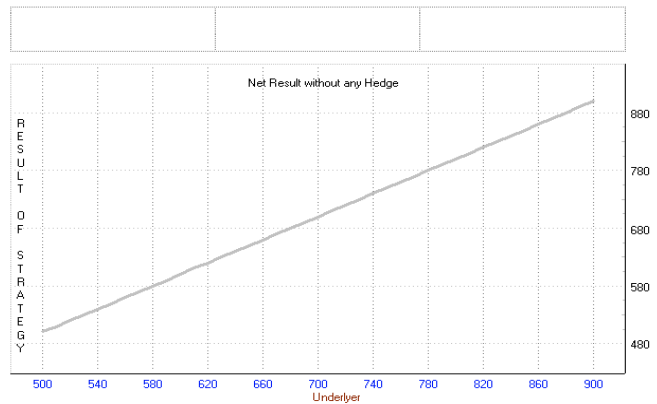
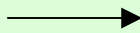
# HEDGE STRATEGIES

With the introduction of agriculture options on futures in the 1980's, producers have many hedging strategies at their disposal. As volatility has increased in recent years in many commodity markets, utilizing options might be a good alternative to simply hedging with futures.

The following charts display a range of underlying prices from left to right. The effective hedge value at each underlying price is displayed vertically with the scale at the right side of the chart. No commissions or fees are included. No basis is included. Hedges are calculated on a 1:1 ratio. All premium values are calculated at expiration.

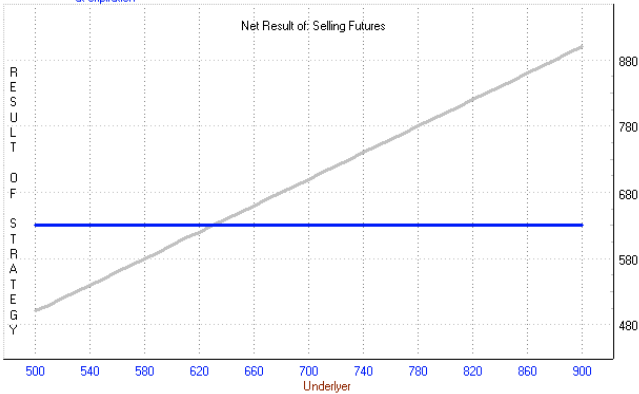
## NET RESULT WITHOUT ANY HEDGE

For reference, we have included this chart to show the result of not hedging. As the underlying cash price increases in value, the effective result increases also. Likewise, as the underlying cash price decreases in value, the effective result decreases. This line is included in all of the following charts as a reference against the various strategies.



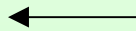
S 1 FUTURE Futr @ 630

at expiration



## NET RESULT OF SELLING FUTURES

Selling futures effectively locks in a price. Whether the underlying price increases or decreases the result of this strategy will remain constant. This strategy allows for a precise hedge and is best suited for less volatile markets.



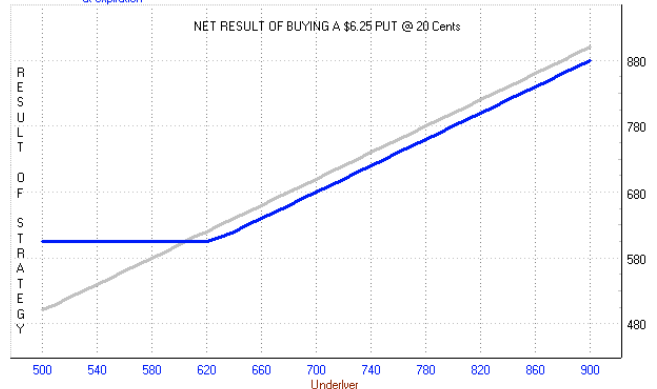
## NET RESULT OF BUYING A PUT

With the purchase of a put, you get the benefit of downside protection along with upside potential. As the underlying cash market increases in price, the loss from the put is limited to the premium paid. As the market decreases in price, the value of the put will increase depending on the selected strike price. This strategy is best suited for more volatile markets.



L 1 625 Put @ 20

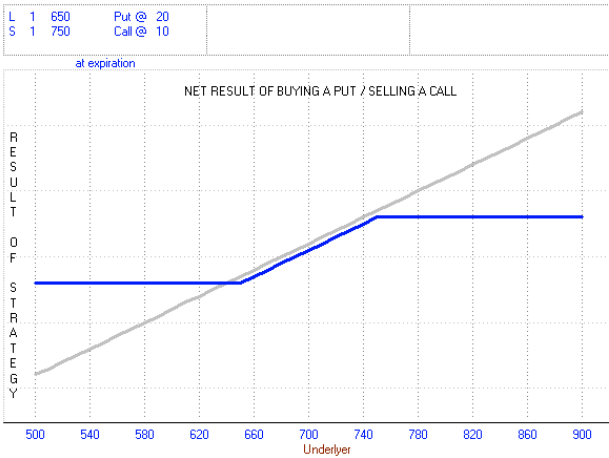
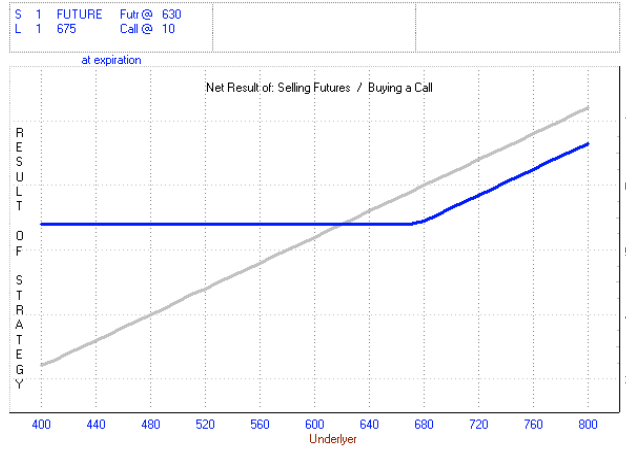
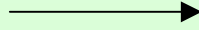
at expiration



## NET RESULT OF

### SELLING FUTURES AND BUYING A CALL

This strategy yields the same effect of buying a put. The strike price selected for the call determines the level of upside potential. As the market increases in value, the call premium will increase in value, offsetting the equity loss from the short futures position. This strategy is best suited for more volatile markets.



## NET RESULT OF

### BUYING A PUT AND SELLING A CALL

This strategy effectively creates a window of risk and reward. The reason for selecting this strategy is to reduce the net premium paid. The strike prices selected determine the effect of the hedge. This strategy is best suited for markets with moderate volatility.

