Capturing Old-Crop Premium For New Crop Production

In the spirit of W.C. Fields' five reasons for not drinking water, let us now praise corn: you can neither distill fine mountain-hollow busthead nor slop hogs without it. But it has the annoying quality of only increasing in price when nobody has it.

This is often evident in the spread between old-crop July and new-crop December prices. At the time of this writing, (March 26, 1996) July is trading at a $0.67 premium over December. This spread reflects the low carryover of corn stocks and the anticipation of large plantings. Is there any way for a farmer to capture some of this spread for his new crop in the field?

Trade Structure

Let's assume that you anticipate a crop of 250,000 bushels, equivalent to 50 CBT corn contracts (NOTE FROM THE LAWYERS: Your actual trade size may vary). The trade will then have two parts: first, a short July component of 500,000 bu., and second, a long December component of 250,000 bu. This long crop/short 2x July/Long December combination locks in the current July price level against the long cash crop and the current July - December spread.

The short July wing is a "synthetic put" consisting of:

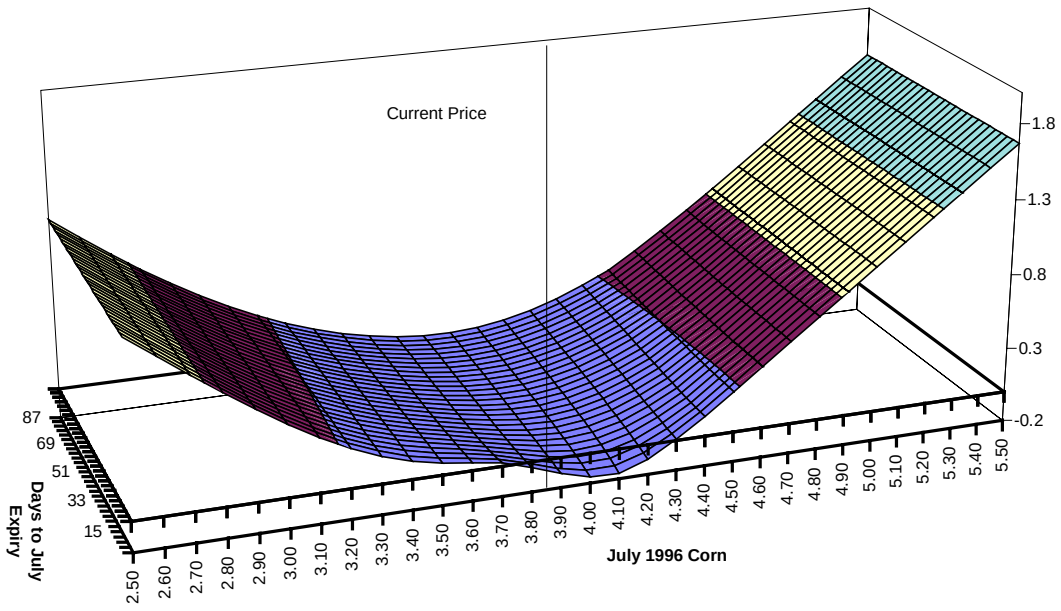
Buy 144 July $4.10 calls and sell 144 July futures with the call @ $0.0825 and July @ $3.8425

The long December wing is a "calendar call spread" consisting of:

Buy 120 Dec $$2.90 calls @ $0.375 and sell 50 July $3.70 calls @ $0.23

The combined profit profiles of these two trades, not surprisingly, has a very shallow straddle-like shape. This is shown in the graph below across a range of July corn price and time remaining to the expiration of the July options.

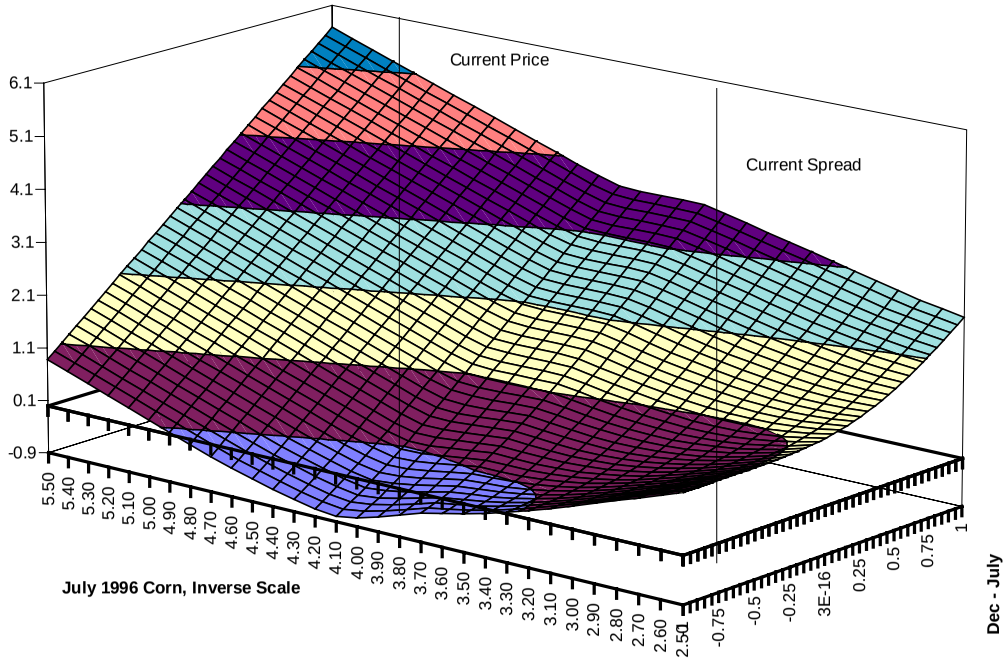
This trade has several interesting attributes. First, the "worst-case" loss at July expiration at the current July - December spread and at current December volatility is on the order of $0.17 per bushel. Second, this loss occurs at $4.10 per bushel, a gain of nearly $0.25 from current levels. Third, the profit profile of the trade benefits from any closing of the July - December spread. This is shown in the second graph, which depicts the combined profit at expiration over a large range of intermonth spreads.



This is shown in the next set of graphs. The first looks at the combined spread across a range of December prices and July - December spread at the time of July option expiration. The second adds the cash market gain of new crop corn to this set of numbers to produce a total basis picture.

The disadvantages of this trade include its high cash outlay at initiation, close to $0.91 per bushel, and the fact that a new trade must be emplaced to hedge December once the July options expire.

Gain On Combined Spread



Net Basis Gain