

Hedging Canola Using Futures and Options

The basic idea behind hedging is to create profits on paper to offset losses incurred if the market drops before the canola is sold. In this way, hedging ‘fixes’ the price of the crop without actually selling it, and ‘protects’ the value of the crop from the market falling.

Because it can be complicated and time-consuming, some farmers simply bear the risk of canola prices falling instead of hedging. Many analysts and farm marketing advisors advocate selling the crop well once, as opposed to getting caught up trading futures and options, for this reason. The ‘incremental selling’ approach, which involves staging sales of the crop over the course of the year, is popular and doesn’t require hedging.

But sometimes the cash contracting mechanisms available through buyers like crushers and grain companies aren’t quite right for an individual farm. This can create problems because it’s always more important to meet the risk management goals of the farm than to sell strictly according to a particular buyers’ terms.

Luckily, the risk profile of virtually all the different cash contracts available can be replicated by combining a farm’s cash position with futures and options. Sometimes this is necessary to fully capture canola’s market potential.

For example, suppose the basis is expected to narrow but the futures look to be topping? A farmer with that view of the market would want to lock in the futures portion of the cash price but leave the basis open. His or her grain company of choice might not offer that option.

This is where the futures and options markets come in. The best course of action in this case would be to avoid selling into the cash market for now, and instead ‘short’ the market on paper. This can be done either by buying put options or by selling the futures outright.

Hedging With Futures – An Example

Suppose Farmer Grey has 60 tonnes of canola in the bin in March, which she wants to sell by the end of April. The May futures are at \$395, and look to be topping, but the basis is still \$45 under. All of her marketing advisors are telling her it’s going to narrow in before May.

So instead of selling the canola for $(\$395 - \$45)$ \$350 per tonne, Farmer Grey sells three May futures contracts. By mid-April, the basis narrowed in to \$35 under and the futures dropped to \$365, so she sells the canola in the cash market (for spot delivery) and is paid \$330 per tonne. At the same time she lifts the hedge, i.e. buys back the futures position, earning an additional profit of \$30 per tonne.

Adding the futures profits to the price the canola was actually sold at gives a net value of \$360 per tonne. So, the grower made \$10 per tonne more than he or she would have by simply selling it in March.

Note here that the advantage of hedging is the difference in the basis. The futures portion of the cash price was 'fixed' via the short hedge and as such, profits in the futures position exactly offset losses on the cash side.

Hedging With Options – An Example

The same risk management profile can be established using put options in lieu of futures.

Suppose that instead of selling futures, Farmer Grey had spent \$20 per tonne on three \$390-strike put options. She still waited until May to actually sell the canola, at \$330 per tonne.

With the futures market having dropped to \$365 per tonne, \$390-strike put options would be worth at least \$25 per tonne, creating the potential for \$5-10 per tonne in profits when they're sold back. Add this to the cash price the canola was sold at and Farmer Grey's net price would come out to (\$330+\$10) about \$340 per tonne.

Even though the net price ends up being lower in this example than when the hedging was done with futures, don't forget the main advantage of hedging with options: paper losses are limited to the cost of the option. Had the market rallied in this example, the options strategy would have worked better.

Suppose that instead of dropping as the farmer expected, the May futures rose to \$440 per tonne before the canola was sold. The cash value of the crop would have risen to \$395 per tonne, or \$405 if the basis still narrowed in by \$10, but there would be \$55 or \$3,300 worth of losses in the short futures position.

The margin calls that accompany losses in futures market positions can be difficult to manage for farmers, which is why most prefer to hedge using options. If they go in the money all the better but if not, there is a cap on the losses that will be incurred.

In this example, where the futures market rallies, the cost of the hedge would have been just \$20 per tonne if puts were used instead of the \$45 per tonne loss if the farmer had sold futures.

Summary

Hedging works because cash, futures and options prices move together. A long position in one can be offset by a short position in the other allowing for the canola price for future delivery to be 'locked in' ahead of time. If prices drop before the canola is sold, lowering the value of the cash commodity, profits in the short hedge go up because the futures or options position may be liquidated creating a net gain.

The mechanics of hedging with options works exactly like hedging with futures. The only difference is that the offsetting position to the cash is held in options instead of in futures. Buying call options or selling put options creates a long position in the market; buying put options or selling call options creates a short.

The main advantage of trading options over futures is that the position is created for a fixed amount of money – the cost of the options. There are no margin calls.

In trading futures on the other hand, a farmer could lose a lot of money if the market moves in the wrong direction. The theory behind selling futures to offset cash market risk is sound but the margin calls that come as prices rise do little to make a farmer feel good about the rising value of the cash commodity.

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