

Frequency of Profitable Hedging Opportunities for Lean Hogs, 2005-2014

Lean hog futures hedging offers an opportunity for producers to lock-in a selling price prior to when the hogs are sold to the packer. This expanded pricing window offers a greater opportunity to protect a profitable price than relying solely on the cash market the day of sale. For the 120 months in 2005-2014 futures offered a breakeven hedge or better 67 percent of the days prior to sale. Selling in the cash market at sale was breakeven or better only 58 percent of the time.

This simple analysis compares estimated cost of production to the basis adjusted daily futures prices over a 10-month time period prior to the marketing date to determine the frequency of days that a profit could have been hedged during the 2005-2014 time period.

Method

Daily closing prices for CME Lean Hog futures contracts expire beginning February 2005 through December 2014 were used. The futures price for each contract was adjusted by the estimated basis for the first half of each calendar month. Estimated basis was the simple average of the previous 3-year basis for each period. The daily expected hedge price was calculated as futures price + expected basis. The estimated cost of production for a selling month was based on the Iowa State University Estimated Returns for farrow to finish swine production. Hedging profit is determined by comparing daily expected hedge price to the estimated cost of production. The process was repeated for each trading day in the ten months prior to marketing.

Results

Breakeven selling price could be hedged 67 percent of the time during the ten months prior to marketing when averaged over all contracts and years (figure 1). The graph also indicates the percent of time that a return of \$X/cwt carcass weight or better can be hedged plotted in \$1/cwt increments. For example, a return of -\$4/cwt or more can be hedged 80 percent and a return of +\$4/cwt or more can be hedged 30 percent.

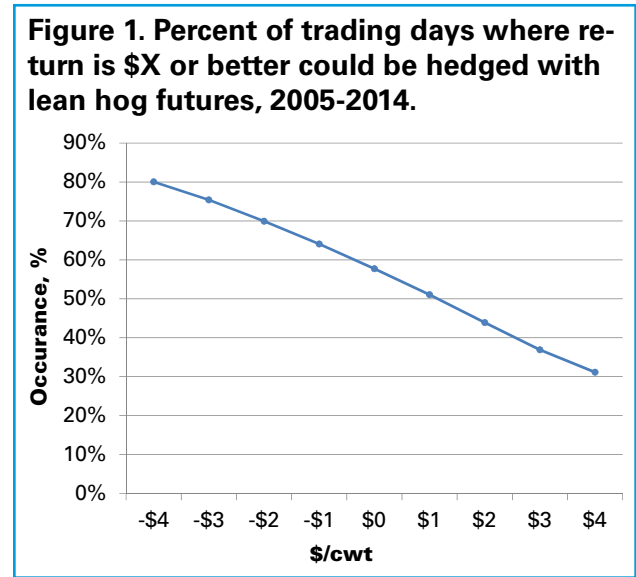
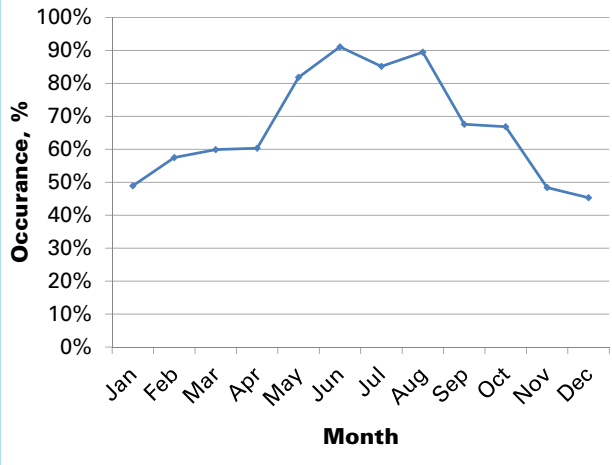


Figure 2 shows the average percent of time that breakeven or better can be hedged by selling month. Given the seasonality of hog prices it is not surprising that there is a higher probability of hedging breakeven or better in the summer months than in the fall and winter.

Figure 2. Percent of trading days where possible to hedge breakeven or better by month, 2005-2014



Discussion

While history is not a predictor of the future, this analysis indicates that pork producers could hedge breakeven or better approximately two-thirds of the trading days during the ten months prior to marketing. There is more opportunity to hedge breakeven or better in the summer than fall or winter. Producers can also use this information to evaluate hedging opportunities. For example, a hedge of \$4/cwt (\$8/head for a 200 pound carcass) has only occurred 30 percent of the time. If it is offered it may be worth taking. Likewise, a loss of \$4/cwt or better can be hedged 80 percent of the time. The odds favor a better opportunity before the hogs reach market weight.

Figure 3. Percent of years out of ten that selling in cash market was breakeven or better, by sales month.

Month	Percent
January	30
February	60
March	60
April	60
May	70
June	80
July	80
August	80
September	60
October	50
November	30
December	30
Average	58

During this period the cash market was profitable only 58 percent of the time compared to futures that offered a breakeven or better hedge 67 percent of the time. Figure 3 indicates the percent of time selling in the cash market was breakeven or better during 2005-2014. March and April odds were similar between the cash market and hedging. The cash market was profitable more often for February sales than was hedging. However, in the remaining nine months a futures hedge offered a profit a higher percent of the time than did the cash market.

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