

Evaluating Market Weights in Today's Market Environment

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Low hog prices and high feed costs are pressuring producer margins and, as in past similar situations, there is a call for lowering market weights to reduce supply. Slaughter weight is a variable under the producer's control and, unlike the number of hogs coming to market, is one that can be adjusted in the short run. It also is a dilemma for producers. Lowering market weights does reduce supplies, but to have a price impact, a large number of producers must participate. A 5-pound reduction from 265 to 260 pounds is a 1.9 percent reduction in total pork supply. With all else equal, we might expect a 5-6 percent price increase from such a reduction in supply, about \$2.50/cwt in a \$50/cwt carcass market.

If producers are still selling hogs at the same weight they did when hogs were \$75/cwt carcass and corn was \$2/bushel, it is time to re-evaluate the optimal market weight. The most profitable weight at which to sell is when the additional cost of the next pound is equal to the revenue of that pound. This simple marketing rule is complicated by reality. In reality, the cost of adding weight increases at an increasing rate and changes with feed prices. In reality, adding weight may impact the lean premium and sort loss. If it does, that changes the price of all pounds, not just the added pounds. In reality, the price can change while you wait. At certain times of the year, odds favor increasing prices; at other times, falling prices are more likely.

The table below shows how to evaluate this market timing decision. A spreadsheet version also is available on the Iowa Pork Industry Center web site (www.ipic.iastate.edu/) where you can plug in your own numbers and evaluate the impact of selling hogs at lighter weights.

Expected return from selling hogs at a later date

	Case 1	Case 2	Case 3
A) Expected added weight	5	5	5
B) Current hog price (\$/live cwt)	\$37.00	\$37.00	\$37.00
C) Cost of added weight (\$/cwt)	\$40.00	\$40.00	\$40.00
D) Expected final weight (cwt)	2.65	2.65	2.65
E) Change in premium (\$/cwt)	0.00	\$0.00	\$0.00
F) Expected price change (\$/cwt)	\$0.50	-\$0.50	\$0.00
A*(B-C)+D*(E+F) = Change in return			
Expected return from selling later (\$/head)	\$1.18	-\$1.45	-\$0.15

In all three examples, the producer is planning to add 5 pounds of gain from 260 to 265 pounds, and the added cost of the gain is 40¢/pound. Feed efficiency at this weight is expected to be 4.0 and feed price is 10¢/pound. In this example the premium doesn't change. In Case 1 the current bid is \$37 and the price is expected to increase \$0.50/cwt during the 3-day wait. Under these conditions the producer would earn an extra \$1.18/head by adding the weight. Case 2 is similar except that the price is expected to fall \$.50/cwt and in this scenario, the producer would lose \$1.45/head by adding the weight and would be better off to sell now. Comparing Case 1 to Case 2 illustrates the risk of betting on a higher market.

Case 3 reflects a situation where the price doesn't change, but prices are less than the cost of added gain. The producer is better off selling rather than waiting. Given the current forecast for hog and feed prices, all producers should evaluate their marketing weights.