

RESEARCH BRIEF

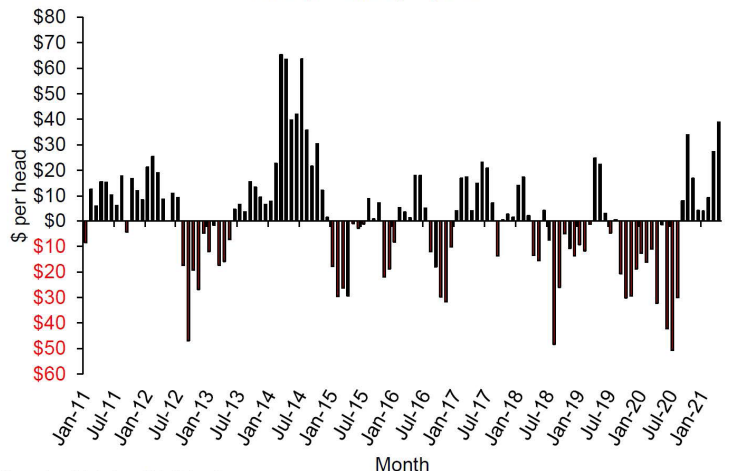
SWINE



OPTIMAL MARKET WEIGHT: ARE YOU GETTING THE MOST OUT OF YOUR PIGS?

Hot summer temps are usually associated with hot hog prices. The pork market forecast is exceptionally hot this summer due to high demand and lack of pigs. June to August lean hog futures are trading around \$110-115 per cwt. This means great profitability for producers. The Iowa State Estimated Return to Wean to Finish Sheet showed profitability per pig at \$38.77 for pigs sold in April. The calculation used \$101.73 as the carcass price and 270 lbs as market weight. As we all know, with this exceptionally good market price for hogs, there should be incentives to increase market weight to achieve best profitability per pig. Now the questions are: What is the optimal market weight? Are we achieving it? How much profit are we leaving on the table? What to do about it?

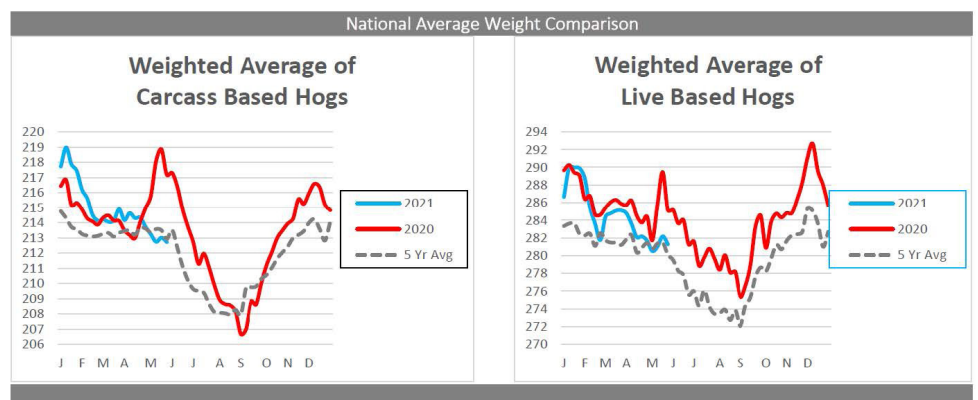
Estimated Returns to Wean to Finish, Iowa
January-11 through April-21



First, let us estimate the optimal weight. The way to roughly estimate optimal weight is to compare the revenue you will get for putting on 1 additional lb of weight against the feed cost. To calculate the feed cost for the additional weight, we will need to know the feed efficiency of the hogs in the late finisher phase. According to a PIC growth curve, the feed conversion ratio is around 3.5 lb of feed per lb of gain during the late finisher phase. With current corn price around \$6.2 per bushel, DDGS at \$210 per ton, soybean meal at \$400 per ton, the last phase finisher feed will cost the producer around \$240 per ton or \$0.12 per lb of feed. Therefore, it will cost the producer \$0.12/lb feed times 3.5 lb of feed = \$0.42 to put on 1 additional lb of live weight. The live weight price today is \$0.84 per lb which is much larger than the cost of feed. Therefore, with current market conditions, the more weight producers can put on finisher pigs, the higher profitability producers will enjoy, with a return of \$0.42 for every lb of additional live weight. The upper end limitation will be the discount scheduled by the packer for super heavy pigs. However, most packers are not discounting until hog live weight exceeds 310 lbs. Therefore, we can conclude that with current market conditions producers should feed to a higher weight (up to 310 lbs) to achieve best profitability.

ARE WE ACHIEVING THE OPTIMAL MARKET WEIGHT?

According to USDA data listed below, May 23 weekly national average live weight was at 281.3 lbs. The answer is simply no. How much profit are we leaving on the table? Using 310 lbs as the optimal market weight, producers have 28.7 lbs of weight left on the table. As we calculated above, the return on every lb of additional live weight at a \$0.42 margin over feed cost would mean that producers are potentially leaving about \$12 per pig margin on the table.



Charts courtesy: USDA Livestock, Poultry, and Grain Market News Des Moines, Iowa



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WHAT TO DO ABOUT IT?

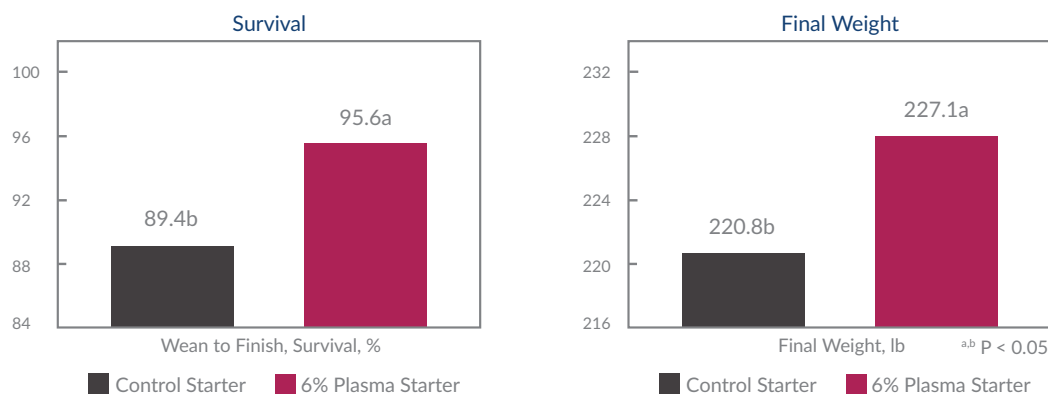
We will not close a 28.7 lb gap with a simple fix. However, there are effective strategies to push market weight higher.

First, the easiest way to increase market weight is to leave pigs in the barn longer. However, most producers may have a contract with packers to supply pigs on weekly basis. Therefore, it is not feasible to suddenly stop supplying pigs and leave pigs in the barns longer to catch up on weight.

Second, modifying the nutritional program could help with weight gain. A higher energy dense diet for grow-finish pigs, especially during summer months, can increase weight gain. However, nutritionists need to balance the cost of a high-density diet versus the savings from using lower energy dense diets. Added animal fat or vegetable oils are used to increase diet density. However, price of these ingredients is relatively high now too.

Nursery pig nutrition could also play an important role in achieving your target market weight. It is especially true if the nursery feed program has a positive impact on the health of the herd. Pujols et al (2016) reported that the inclusion of 6% plasma in the starter diet fed during the first two weeks after weaning improved growth and survival during the entire wean to finish period. The authors observed an additional 6.3 lbs of final market weight and 6% less mortality. Compared to making changes in the finishing feed, the cost per pig investment during the nursery phase is relatively small on a per pig basis because of the very small amount of feed (about 5.5 lb per pig) consumed during the initial 2 weeks after weaning.

PLASMA STARTER FEED HAS LONG-TERM EFFECTS ON SURVIVAL TO MARKET WEIGHT



Survival increased 6% and final weight increased by 6.3 lb for pigs fed plasma in starter diet

Overall, current market conditions call for heavier market weights to gain more margins for producers. However, producers are not fully capturing these margins and are potentially leaving up to \$12 per head profit on the table. Nutritionists will have to implement cost effective ways to improve weight gain to capture more profit for producers. Inclusion of validated technology, like use of plasma in nursery feed programs, helps get pigs started eating and thriving right after weaning which can have a long-term beneficial impact on both weight gain and survival of pigs to market weight. A focused investment in early life growth and health using validated nursery feed programs can contribute to higher profitability per market hog sold, particularly under current market conditions.



Estimated Returns to Wean to Finish, Iowa: Lee Schultz, Iowa State University; National Average Weight Comparison: USDA Livestock, Poultry, and Grain Market News Des Moines, Iowa; Plasma in Starter Feed has Long-Term Effects on Survival to Market Weight: Pujols et al., 2016 PHM 2(4)11-11