

Monthly Returns from Finishing Feeder and Weaned Pigs

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Iowa Estimated Returns is a series of estimated monthly profits or losses to cattle and swine feeders. Returns are calculated using assumed feed rations, production methods and costs which reflect the Iowa production environment. Market prices for inputs and animals sold fluctuate with the current market conditions.

The Estimated Monthly Returns from Finishing Feeder Pigs is the estimated profit or loss to a producer that purchases feeder pigs and feeds them to a finished weight of 270 pounds. The traditional series that estimates returns to finishing 50 pound feeder pigs is now accompanied by a parallel series which follows returns to finishing weaned 12 pound feeder pigs. The following assumptions, market information sources and methodology are used to calculate the estimated returns. Unless identified as weaned the term feeder pig refers to a 50 pound animal.

Feeder pig finishing

Finishing feeder pigs usually occurs in an enclosed and automated facility. Feeder pigs are available for purchase in a range of weights. Two of the most common feeder pig sizes traded today are 50 pound pigs and weaned 10-12 pound pigs. Fifty pound feeder pigs are placed immediately in a finishing facility and gain approximately 1.55 pounds per day. Weaned pigs are placed in a nursery facility until they have grown to a weight of 50 pounds when they are resorted and placed in the finishing facility.

Feeding ration and cost

Feed rations do change during the finishing period and monthly intake increases as the hogs become larger. However, for each feeder pig finished it is assumed that about 9.3 bushels of corn, 87 pounds of soybean meal, and 32.5 pounds of dried distiller grains are fed. Weaned pigs will consume 10.2 bushels of corn, 120 pounds of soybean meal, and 32.5 pounds of supplement. Distiller grains make up only 5% of the assumed ration during the finishing period. Vitamin and mineral supplement makes up 2% of the assumed ration.

Feed costs are assessed each month based on the feed quantity consumed and monthly market price. The price of corn is assumed to be the mid-month price received by farmers, reported in the USDA *Agricultural Prices*, adjusted upward \$0.10 per bushel to reflect a purchase price. Soybean meal is valued each month according to the average Thursday midpoint price in Central Illinois as reported in USDA report GX_GR117. The cost of dried distiller grain is based in the average price in Iowa as reported weekly in USDA report SJ_GR225. In the event that Iowa prices are not reported during a particular month, the price of dried distiller grain in Central Illinois will be used.

Vitamins, minerals and purchase complete feeds are included at a cost of \$7.80 per feeder pigs and \$11.35 per weaned pig during finishing.

Operating and overhead costs

Animal health expenses include the cost of commonly used vaccines, parasite control and miscellaneous cost such as antibiotics and vet charges. The animal health or vet/med cost per feeder pig or weaned pig finished are \$3.99 and \$4.15 respectively. Death loss of feeder pigs during the finishing period is assumed be 3% and 6% for weaned pigs.

Labor requirements are assumed to be 0.08 hours per pig finished. At \$22 per hour, benefits included, the labor cost per 50 pound pig finished is \$2.75 per head. Weaned pig finishing requires 0.125 hours of labor for a cost of \$3.67 per head. Administrative costs are estimated to be \$1.50 per feeder pig finished and \$2 per weaned pig finished.

Some of the other production costs include manure handling, feed delivery and utilities. Manure handling costs are based on a custom handling price of \$0.01 per gallon. Each feeder pig finished is expected to produce 190 gallons of manure for a cost of \$1.90 per head. Utilities are charged at a rate of \$1.57 per animal finished. Weaned pig finishing is expected to cost \$2 for manure handling and \$2.57 for utilities per head. Custom feed mixing, grinding and delivery is charged at rate of \$10 per ton of feed.

Interest costs are assessed on feeder pig purchases, feed, labor and other variable input costs. Interest on the pig purchase cost is access over the duration of the feeding period. Interest on inputs costs is calculated as the product of one half of the production cost, full pig purchase price and the current operating interest rate when the pigs were delivered. Interest costs are based on the operating loan rate reported by the Chicago Federal Reserve Bank, available on their website.

Transportation costs include the expense of trucking finished hogs 100 miles to a packing facility. Trucking costs are calculated from a base per mile trucking fee of \$2.50 per loaded mile and an addition fuel surcharge when the price of road diesel fuel exceeds a threshold of \$1.20 per gallon. Fuel surcharges per mile are 20% of the cost of a gallon of diesel above the \$1.20 threshold price. The price of Midwest No. 2 over-the-road diesel is obtained from historic price database on the U.S. Department of Energy web site. Transportation costs per head are determined under the assumption that a truck is filled by 148 finished hogs. The minimum transportation cost per hog is \$1.68 per head.

Facility costs include the cost of all buildings and equipment needed for farrow to finish operations. Also included are the costs of repair and maintenance, taxes and insurance. Buildings are expected to last 25 year and equipment 10 years. Fifty pound feeder pigs are placed in 9600 space finishing facilities with an estimated value of \$1.9 million with a 70/30 building to equipment cost split. For a weaned pig finishing operation the cost of a 4000 head nursery is added. The estimated cost of the nursery is slightly less than \$450,000 with a 65/35 split between the cost of the building and the equipment. Annual repair costs are estimated to 1.5% of original value. Depreciation is amortized according

to useful life. Property insurance and tax are assessed at 0.5% and 0.7% respectively. Cost of annual land value or “rent” and initial site preparation with utility connection are assessed at \$0.09 per animal sold. The final estimated fixed cost per head finished is \$6.82 for feeder pigs and \$8.45 for weaned pigs.

Purchase price

Feeder pigs are purchased for the price reported in the National Direct Feeder Pig Report. Fifty pound pigs are valued at the average delivered price paid for lots of 750 head or more. Weaned pigs are valued at the average price paid for delivered SEW 10 pound pigs in lots of 750 head or more.

Sale price

Finished hogs, weighing 270 pounds, are sold for the average weekly price paid in Iowa-So. Minnesota as determined by Livestock Market Information Service based on USDA report LM_HG 204. The average market hog price is multiplied by 74% to make the conversion to live hog price. Cull hogs are assumed to make up 3% of the market hog volume and are discounted 45% on a per head basis. Final sale values are adjusted by 98.4% in order to account for light weight cull hogs.