

Cost of Production Forecast – U.S. vs. Canada Comparison

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■ Introduction

The cost of production is a key driver for the success of a commodity business; specifically, this presentation will address the business of pork production and identify competitive advantages and disadvantages of Canadian production compared to the U.S. systems.

The pork production chain can be classified into the following categories:

- Hog production
- Processing fresh meat
- Marketing of fresh meat

When comparing U.S. vs. Canadian production we will first define what is an ideal pork production system. The ideal production system optimizes revenue with cost effective manufacturing at both the farms and the processing plants.

■ The Ideal Pork Production System

Hog Production

Feed represents 60% of the hog production cost and 40% of the total cost of final pork products. Three pounds of feed are required to produce a pound of meat. Location of the mill should be near the feed source and location of the farm should be near the mill. Transporting meat to market is more cost efficient than hauling ingredients to feed mills or hauling feed to barns.

Breeding/gestation/farrowing barns, nursery barns and finishing barns should be clustered as near to each other as possible to minimize transportation costs of live hogs.

Barns should be in an area with a strong labour force. Production efficiency is a key driver for keeping per unit costs down.

The ideal pork production system includes facilities located in an area that is not too densely populated with hogs as this provides the ability to maintain a healthy herd.

Manure is a valuable resource that is utilized effectively for crop production. Ideally hog production is in a sustainable environment where these nutrients can be managed in a cost effective manner.

Processing

Processing plants need to be located in the area of the pig production to minimize transportation costs of the live pigs. Transportation of live pigs is a most inefficient use of transportation resources and the distance needs to be kept to a minimum. Transporting meat to market is more cost efficient than hauling live pigs to the processing plant.

Processing plants should be located in an area with a strong labour force. Having the sufficient number of employees is important but more important is having access to qualified employees because production efficiency is a key driver for keeping per unit costs down.

An operationally efficient plant is one that has the ability to customize products to the customer's specifications while capable of harvesting the entire hog. There is an appropriate market for every part of the hog and waste should be minimal.

Processing plants that deal with the variability of the pigs allow "all-in/all-out" hog barns to be emptied, thus eliminating pig selection with a narrow weight window at barn level and maximizing the size of the pig to its genetic and economic capabilities.

Asset utilization is maximized with a large-scale double shift plant that utilizes economies of scale and processes for the majority of the day.

Marketing, Warehousing and Transportation

Ideal marketing, warehousing and transportation is recognizing and having access to the market with the best return for each part of the hog. This includes domestic and international markets for maximizing your sales returns.

Effective distribution facilities and an expedient transportation network to your customer are essential. This means access by truck, train, or ocean vessel as necessary to deliver product to the customer in a timely manner.

■ Key Areas to Success and the Challenges We Face

Feed Costs

Feed is the single largest cost in pork production. The most influential factor in the success or failure of a pork production system is the availability of feed at competitive pricing. Include the rising cost of fuel and feed becomes expensive; production facilities must be located near a feed source. Bio-fuel companies are competing with the swine industry for corn and have caused corn prices to reach an all-time high. The price of feed has pushed our overall production costs to levels of negative margins; with demand steady the only solution is a reduction in the hog supply. This liquidation has been seen worldwide. We estimate that if our cost structure increases by 30% then the price of pork would need to increase by 30%, which will require a reduction in supply of approximately 7-10%.

Transportation/Fuel

Hog production requires a lot of fuel. Transportation is an influencing expense. Ingredients are delivered to the feed mills, feed is delivered to the barns, pigs are transported from barn to barn, pigs are delivered to a processing plant and the pork is delivered to the customer. Minimizing transportation costs is crucial to an efficient pork production system.

Labour

The largest influence on overall productivity is labour. Labour costs represent approximately 15% of the total cost structure for pork production. While rates affect cost, overall productivity is the larger contributing factor. Take into consideration the number of pigs per sow; two less pigs per sow increase your total cost by \$2.70 per pig. A 0.1 increase in feed conversion will increase your costs by \$2.60 per pig. A decrease in yield at the plant of 1% will decrease your revenue by \$2.0 per hog. These are affected not by the wage

of the employee but the quality of the employee. Experienced staff directly impacts the cost per pig.

Asset Utilization

Pork production is very asset intensive and it is crucial to insure every asset is being used to its maximum capability. For bio-security purposes it is common in North America for three site hog production. While this nurtures a healthy barn environment it lowers utilization of barn assets. There is the additional expense of washing time in nursery and finisher barns and unutilized space in the finish barn during the period of marketing. We estimate that 12-15% of hog production assets are underutilized. Processing facilities are being underutilized if they function only during a single shift, even with down time for cleanup and repairs a processing plant can be in operation for 16 hours a day.

■ **Conclusion: Competitive Advantages Canada vs. U.S.**

Category	Superior		Advantage
	Canada	USA	
Hog Production			
Sow Production	X		Productivity and Health
Grow Finish		X	Facility Costs, Asset Utilization, Bigger Pigs
Grow Finish	X		Feed, Health
Genetic	--	--	Neutral
Processing			
Labour		X	Hispanic Work Force
Labour	X		Canadian Immigration Policy
Asset Utilization		X	More Double Shifts
Economies of Scale		X	Bigger Plants
Customer Focus	X		Smaller Plants; Able to Provide Customized Product
Marketing			
Market Access		X	Larger Domestic Market
Market Access	X		Strong International Reputation
Transportation		X	Box Cars, Larger World Consumer