

# CRASH COURSE: Meat processing 101

## Small Plant Economics (3 of 4)

We often hear from farmers that processors are (1) too few in number, (2) too far away, and (3) too busy when producers need them. But processors tell us that farmers (1) don't bring them enough business, year-round, to hire (and keep) skilled workers, (2) don't come at their scheduled time or bring fewer or different animals than planned, and (3) don't pick up finished product on time, using up valuable cooler space.

Both are right: these are big challenges. Why don't we have more processors? How can processors be profitable... or simply break even? As a small processor explains:

*It takes significant infrastructure to run this business – you need significant, steady volume to support it. Producers need to find good processors and reward them with business so they can continue to invest in the infrastructure – not just buildings and equipment but also our highly skilled employees – to keep delivering excellent quality products.*

The processing business is complex and high risk, with thin profit margins. A simple new facility often costs \$1 million or more (~\$300/sq ft on average). To justify the investment, a prospective processor and financial backers must be confident that the processor will be profitable.

To do this, the processor must have significant, sustained demand for processing services: enough farmers and ranchers who commit to bringing enough livestock, consistently over the year, paying what that processing actually costs.

Throughput, revenue, and services offered are all interconnected: the more throughput, the more revenue. The more revenue, the more (and more sophisticated) services a processor can provide.

### Niche Meat Processor Assistance Network



NICHE MEAT PROCESSOR  
ASSISTANCE NETWORK

A national network and information hub for small-scale meat and poultry processors and the farmers and ranchers who depend on them to get their product to market. [www.nichemeatprocessing.org](http://www.nichemeatprocessing.org)



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These three examples – based on real processors – show the level of service three different plants can offer, based on how much livestock they process.

## Very Small Custom-Exempt

- 2,000 Sq. Ft. facility
- Slaughters/cuts beef, pork, sheep, goat
- Limited sausage making, smoking, curing services
- All raw meats packaged in butcher paper and frozen
- Option for some vacuum packaging for cooked sausages
- No scale labeling (applying labels with actual weight to packages or cases)
- 4 FTE employees

## Small Inspected

- 4,000 Sq. Ft. facility
- USDA or State-inspected; maybe also custom-exempt
- Slaughters/cuts beef, pork, sheep, goat
- Sausage making, smoking and curing services
- All raw meats packaged in butcher paper and frozen
- Vacuum pack cooked sausage, boneless cured meats
- Very basic scale labeling
- 10 FTE employees

## Regional Inspected

- 15,000 Sq. Ft. facility
- All products USDA-inspected
- Regular 3rd-party audits (GMPs, food safety, animal welfare, certified organic)
- QA dep't monitors sanitation, product safety, quality, shelf life via microbial testing, sensory evaluation
- Slaughters/cuts beef, pork
- Sausage making, smoking and curing services, exact weight retail portions
- Exact weight portion cutting of steaks and roasts
- All raw and cooked meats are vacuum packaged fresh or frozen, usually Thermoformed roll stock for retail sale
- Complex scale labeling for pieces, cases
- 4-color preprinted labels applied uniformly to packages
- Most product boxed, palletized to ship
- 60 FTE employees
- Offers health insurance & retirement benefits

As you can see, to provide the level of services that many are interested in for marketing high-quality products (i.e., value-added processing, portion cutting, full-color labels) a plant needs significant throughput to justify that level of investment. Very small plants can often only provide very basic services. Specialized equipment and skilled labor are expensive: to provide a wider range of services a plant needs a significant, steady stream of livestock to afford the necessary machinery and personnel.

Expenses	Very Small	Small	Regional
Raw materials/ingredients/packaging	\$50,000	\$120,000	\$700,000
Labor (all inclusive)	\$110,000	\$300,000	\$2,800,000
Office-related overhead	\$1,000	\$4,000	\$25,000
Processing-related overhead	\$30,000	\$61,000	\$450,000
Other overhead	\$20,000	\$32,000	\$150,000
Loan Interest	\$10,000	\$25,000	\$165,000
Depreciation	\$10,000	\$23,000	\$152,000
Total expenses	\$231,000	\$565,000	\$4,442,000
# Beef revenue equivalent per year for break even	462	1130	8884
# Beef revenue equivalent per year for cash flow	442	1084	8580

Now you know the basics. Ready to go deeper? Go to [www.nichemeatprocessing.org](http://www.nichemeatprocessing.org). Click on *Planning a New Facility or Expansion* to learn more about small-scale processing plant economics. Check out *NMPAN Research* for more on current challenges and innovative solutions related to small-scale meat and poultry processing for local markets.