

SLAUGHTERHOUSE CASH FLOW TEMPLATE

REFERENCES & ASSUMPTIONS

Revenue & Direct Costs

Revenue Assumptions

Flat Kill Fee per Head

\$52/head = average flat kill fee for beef cattle (9 facilities)¹

\$26/head = average flat kill fee for lambs (6 facilities)²

Some facilities have a variable kill fee based on hanging weight which was not included in the average.

Additional references include:

Hudson Valley, NY³ \$31/beef, \$25/hog, \$20/lamb (or other)

Liberty, NY⁴ \$40/beef, \$30/veal, \$20/hog, \$18/lamb

Processing Fees⁵

Cryovac/lb = \$.75

Paper Wrapping/lb = \$.55

3:1 assumed ratio cryo to paper wrapping⁶

Fee/lb with 3:1 ratio = \$.70

No labeling fee is included, but two of the 13 facilities surveyed charge labeling fees averaging \$.17/label.

Beef Patty Charges

8% = percent of hanging weight (beef only) further fabricated into patties⁷.

Sausage Charges

Sample does not include sausage fabrication but this could be another possible source of revenue. Equipment list would need to be adjusted accordingly.

Drop Income

Beef Cattle = \$17/head⁸

This is a highly volatile variable, dependent on the hide market. Conversations in 2009 suggest that drop is an expense for operators rather than an income stream and should be noted under costs for waste, but prior contacts suggested that \$17/head was a low estimate for drop income⁹, and that additional income may be captured from edible offal which comprises 2-3% of a carcass by weight¹⁰.

¹An informal survey of thirteen USDA-inspected livestock slaughter and meat processing facilities in the Northeast (MA, CT, VT, NH, NY) was performed by Barbara Goodchild in December, 2007. *Kill-Processing Costs*, B. Goodchild, December 2007. (available upon request)

² Ibid.

³ *Meat Processing Facility Feasibility Study*, Hudson Valley Livestock Marketing Task Force, Shepstone Management Company, January 2000.

⁴ Sullivan County Division of Community & Economic Development, *Liberty NY Revenue Projection*, 2006.

⁵ Goodchild, 2007.

⁶ Based on farmer-direct marketer estimates.

⁷ Ibid.

⁸ Shepstone, 2000.

⁹ One industry expert estimates that for an average steer (1,100 lbs), the hide would comprise 7% of carcass weight (77 lbs), and hide prices range between \$.60 - \$1.25/lb (equaling revenue of \$46-\$96/head for the hide alone). This revenue source might depend on meeting a minimum volume to capture a particular market for hides.

¹⁰ Additional estimates are provided in Stafford Springs Meat Processing Plant Assessment & Business Plan (ProAnd Associates, 2000).

Direct Costs

Labor

Full time is calculated at 2000 hrs/yr to allow for time off.

Hourly rates (\$25 manager/lead cutter, \$19 assistant manager/cutter, \$14 assistant cutter) were estimated in collaboration with an experienced butcher employed in western Massachusetts.

Benefits are calculated at 15% of salary for this sample. Employer taxes include Social Security and Medicare, estimated FUTA/SUTA and MA 2008 workers compensation rate for butchers. Benefits assume employer contribution to health insurance and/or other employee benefits such as retirement. However, while the sample cash flow assumes that increases in costs will be balanced out by price increases for services, health insurance costs increase very rapidly, and 15% of salary may be insufficient to cover benefits for employees with lower salaries¹¹.

Annual merit increases are not assumed, other methods of performance rewards could be considered (e.g. profit sharing).

Supplies

All species = \$7/head¹²

More detailed estimates could be distinguished by species or an average cost per “animal unit”¹³, since the amount of cryovac packaging needed to process the cuts of a large steer than a small lamb¹⁴.

Waste

Cattle = \$4/head^{15 16}

Other estimates range from \$25/head (cattle) to \$.035/lb hanging weight.

Laundry

Placeholder only – needs local estimates.

Production Assumptions

Rate

Labor required for kill and processing per animal¹⁷:

9 hrs/steer

2.5 hrs/small ruminant

2.5 hrs/hog (assuming skinning)

Alternative estimates suggest a higher efficiency rate at approximately 7.8 hrs/steer and 1.75 hrs for lambs/goats/hogs¹⁸. Productivity could be enhanced by installing high-tech equipment.

Beef equivalents are calculated using relative processing times for different species.

¹¹ Community Action Brattleboro Area (CABA) notes that health insurance rates can increase between 12-15% per year.

¹² Estimated from \$5.50/head (Sleeping Lion, 2005).

¹³ One “Animal Unit” or “beef equivalent” is generally the equivalent of one mature cattle. Other species ratios depend on the factor being calculated (e.g. amount of labor required for slaughter and processing, pasture required, etc.).

¹⁴ The Hudson Valley feasibility study included estimates that supplies equal 5% of basic slaughter/processing costs (Shepstone, 2000).

¹⁵ Estimate provided by composting facility per 55-gallon drum (estimated to be sufficient for the waste from one “beef equivalent”).

¹⁶ “Waste removal costs are also expected to be \$4 per beef and \$2 per hog or other animal” (Shepstone, 2000, p. 6-6).

¹⁷ Estimates provided by expert butcher for a relatively low-tech line, including flexibility for time to transport meat between proximate slaughter and processing facilities.

¹⁸ Informal estimates provided by Ed Jackson, VT Agency of Agriculture.

Quantity

594 animal units (beef equivalents in terms of processing time) equals 89% staff efficiency for a 3-person crew at 50 weeks/year¹⁹

400 cattle, 220 small ruminants, 400 hogs = 1.8:1:1.8 ratio species mix²⁰

Note: cooling facilities also need to match processing capacity

Average Hanging Weight Per Head

Beef cattle = 550 lb/head²¹

Pigs = 210 (average dressed weight)²²

Lambs = 42 (average dressed weight)²³

Labor/Capacity

Assumes 3 cutters/shift required. By monitoring total hours production needed per shift (hrs/animal/species x quantity/species) can match production to staff capacity. Because in sample facility the manager who is also a cutter will have other duties, the 89% production efficiency is adequate.

Operating Costs

Scheduler/Bookkeeper

Estimate. See Direct Costs for employer taxes and benefits assumptions

Transportation

Estimate includes trailering between separate but proximate slaughter and processing facilities, and travel related to administration (e.g. supply pick-up).

Utilities

Estimates are placed in “Admin Costs” as an operating expense, but may be more accurate if typical utility usage (electricity, other fuel or energy costs, water, septic, etc.) for the facility can be separated out from a per head usage rate under “Direct Costs”.²⁴

Other estimates include \$700/month for processing activities only²⁵.

Office Expenses

Estimate

Rent

Figure provided by potential landlord.

Insurance

Estimate²⁶

Property Taxes

Sample facility will be rented and property taxes paid by the landlord.

Professional Fees

Estimate for tax preparation and related services

¹⁹ Additional down time should be calculated for sick time and holidays.

²⁰ The survey suggests that the available input is more like a 3.5:5:1 ratio, but MA state data suggests that more hogs are available than the survey captured. Cattle and hogs appear to generate higher revenues and having a lower proportion of small ruminants makes the cash flow project work.

²¹ Ibid.

²² *Slaughterhouse Feasibility Report – Pride of Vermont*, Sleeping Lion Associates, April 2005.

²³ Ibid.

²⁴ Shepstone estimated \$6,000/yr plus \$4/beef and \$2/hog (Shepstone, 2000).

²⁵ Sleeping Lion, 2005.

²⁶ Shepstone estimates \$15,187 annually for Stage 1 capacity (438 cattle, 625 hogs). Sleeping Lion Associates estimates \$8,000 annually, and Roche estimates \$2,100 annually for property insurance alone.

Start-up Capital Costs, Loans & Depreciation

Start-up Capital Costs

Assumes leasehold improvements and equipment purchase.

Non-capital Start-up Costs²⁷

Sample assumes non-capital start-up costs will be incurred and deducted in first year of operation. Consult with a tax attorney about deductibility of start-up cost items.

Total Operating Projections

Inflation is not noted – the template assumes that revenues (processing fees) will be adjusted to balance out cost increases.

Shifts/year

Revenue and direct costs are based on one shift per year and can be adjusted by increasing or decreasing the number of shifts. Template assumes the facility reaches capacity at 2 shifts in the third year.

Other Income

Anticipated non-production income can be entered here. Consult with a tax attorney to find out if any grant funds you receive are taxable.

Interest on Line of Credit

This rate will be applied to the working capital line of credit amount entered in the previous year.

Income Taxes

Sample % is based on combined 2007 federal and MA state rates for cooperative businesses.

Working Capital Line of Credit

Working capital loan amounts were entered after seeing whether there was a negative cash balance at year end. The template assumes that a line of credit drawn in one year will be repaid in full with interest in the following year. This may be adjusted for a 3-year monthly cash flow where the line of credit can be adjusted as needed throughout the year.

Owners Withdrawals

In the sample, owners withdrew 50% of profits on an annual basis, starting in the first year of positive cash flow, and leave the remainder in the business for future investment in the plant.

²⁷ Estimates from Roche were used as a baseline. Roche, Jonathan. *Cost Analysis: A Meat Processing Facility in Western Massachusetts*, October 2001.