

HOW TO USE THE TEMPLATE

This template is designed to help test the feasibility of establishing a small-scale, low-tech, mixed species slaughterhouse and processing facility. The template assumes that the facility will provide services only, not sale of product. While it can provide a “back-of-the-envelope” assessment, it should not be sole tool used in your determination. “Small-scale” is defined as a facility that can process up to approximately 2,000 animals or 1,200 beef equivalents annually.

The workbook template has four separate worksheets, each of which permits some input of data. The input cells are colored blue. If you wish to change data or formulas in any other cells, you will need to unlock the worksheet (select Tools/Protection/Unprotect Sheet).

Revenue & Direct Costs

- a) The calculations on this worksheet are based on one shift. You can modify the number of shifts on the Profit/Loss worksheet.
- b) Full shift capacity is assumed to be 3 FTE person crew or 6,000 hrs/yr. As you input production and labor assumptions monitor the labor/capacity information to be sure you are matching staff to production.

Start-up Costs, Loans & Depreciation

- a) Up to 2 long-term loans can be estimated on this worksheet. Working capital loans will be entered on the Cash Flow.
- b) Depreciation is calculated as straight line, using IRS asset life guidelines.

Operating (Indirect) Costs

Combined Profit & Loss and Cash Flow Projections

- a) Enter the number of shifts per year (between 0-2) to calculate revenues and direct costs for different levels of production.
- b) Use the Ending Cash Balance on the Cash Flow to determine whether you need to take out a line of credit (working capital) loan in a given year. The worksheet assumes that a working capital loan will be repaid in full with interest in the following year.
- c) All calculations are made in current dollars. It is assumed that any increase in costs will result in a corresponding increase in fees charged.

Profile of facility used in sample:

Organization: Farmer-owned cooperative

Facility: rented with 10 year lease, separate slaughter and processing facilities.

Capital sources: grants, loans and owner equity

Capital uses: building improvements, equipment

Animals processed: beef, sheep, hogs

Labor: Manager and 2 assistants per shift. In addition to managerial duties manager is also a cutter, and all crew members do both slaughter and processing. Admin labor is 1 half-time scheduler/bookkeeper.

See [Cash Flow Template References & Assumptions](#) to identify data sources and calculations for the sample facility.

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Revenue & Direct Costs

Revenue Assumptions	% of production fee	unit	quantity/ shift/year	revenue/ shift/year
Slaughter (beef)		\$52.00 hd	400	\$20,800
Slaughter (sheep/goat)		\$28.00 hd	220	\$6,160
Slaughter (pig)		\$30.00 hd	400	\$12,000
Processing (beef)		\$0.70 lb	220,000	\$154,000
Processing (sheep/goat)		\$0.70 lb	9240	\$6,468
Processing (pig)		\$0.70 lb	84000	\$58,800
Beef patty charges	8.00%	\$0.20 lb	220,000	\$3,520
Sausage charges		lb	84000	\$0
Other processing				\$0
Drop (hides)		\$17.00 steer	400	\$6,800
Total Revenue/Shift/Year				\$268,548

Production Assumptions for 1 Shift				
rate	unit	quantity	hang wt	beef equiv
9	hrs/animal	400	550	400
2.5	hrs/animal	220	42	61
3	hrs/animal	400	210	133
Total		1020		594

Direct Costs

Labor (FTE = 2000 hrs/year)	% FTE	#hrs	rate	annual cost
Manager/Cutter	100%	2000	\$25	\$50,000
Asst Mgr/Cutter	0%	0	\$19	\$0
Assistant Cutters	200%	4000	\$14	\$56,000
Other	0%	0		\$0
Total		6000		\$106,000
Employer taxes & workers comp			15%	\$15,900
Employee benefits			15%	\$15,900
Total Annual Direct Labor Cost				\$137,800
Supplies		unit	rate	
		hd	\$7	\$7,140
Waste		beef equ	\$4	\$2,378
Laundry		month	\$100	\$1,200
Total Direct Costs				\$148,518

Labor/Capacity:

5350 total hours production needed per shift
 2000 hrs/yr per cutter available
 3 # full-time cutter
 6000 100% efficiency
 0.89 % production efficiency per shift

Operating (non-production) Costs

Admin Labor (FTE = 2000 hrs/year)	% FTE	#hrs	rate	annual cost
Scheduler/Bookkeeper	50%	1000	\$19	\$19,000
Other	0%	0		\$0
Other	0%	0		\$0
Total		1000		\$19,000
Employer taxes & workers comp			15%	\$2,850
Employee benefits			15%	\$2,850
Total Admin Labor Cost				\$24,700

Other Operating Costs	#months	rate	annual cost
Transportation/trucking	12	\$500	\$6,000
Utilities	12	\$1,000	\$12,000
Telephone/Office Expense	12	\$200	\$2,400
Rent	12	\$5,000	\$60,000
Insurance	12	\$1,250	\$15,000
Property Taxes	12		\$0
Professional fees	12	\$125	\$1,500

Start-up Capital Costs, Loans & Depreciation

Start-up Capital Costs	#Years Depr.		Non-capital Start-up Costs	
Property acquisition:			Recruitment	\$300
Land	0		Training	\$5,000
Buildings	27.5		HACCP	\$5,000
Construction costs:			SSOP development	\$1,000
New construction	27.5		Legal	\$3,000
Building Improvements	15	\$120,000	Accounting	\$1,500
Equipment purchases	7	\$180,000	Label set-up	\$200
Contingency			Misc. small equip.	\$3,000
Total Capital Costs		\$300,000	Total Non-capital Start-up Costs	\$19,000

Financing & Equity		
Grants		\$200,000 <i>Caution: grants may be treated as income</i>
Owner Capital		\$30,000
Loan #1		\$70,000
Loan #2		\$0
Total Financing & Equity		\$300,000

NOTE: Working capital loans are entered on Total Operating Worksheet - See Instructions

Loans	Loan #1	\$70,000	Loan #2	\$0	Total Loans	\$70,000
	Interest Rate	10%	Interest Rate	0%		
	Term (#Yrs)	7	Term (#Yrs)	1		
	Ann. Debt Serv.	(\$14,378.38)	Ann. Debt Serv.	\$0.00		

Loan #1 Schedule	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
interest	\$7,000	\$6,262	\$5,451	\$4,558	\$3,576	\$2,495	\$1,307	\$0	\$0	\$0
principal	\$7,378	\$8,116	\$8,928	\$9,821	\$10,803	\$11,883	\$13,071	0	0	0
loan balance	\$62,622	\$54,505	\$45,578	\$35,757	\$24,954	\$13,071	\$0	\$0	\$0	\$0

Loan #2 Schedule	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
interest	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
principal	\$0	0	0	0	0	0	0	0	0	0
loan balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Annual Interest	\$7,000	\$6,262	\$5,451	\$4,558	\$3,576	\$2,495	\$1,307	\$0	\$0	\$0
Total Annual Principal	\$7,378	\$8,116	\$8,928	\$9,821	\$10,803	\$11,883	\$13,071	\$0	\$0	\$0

Depreciation										
Buildings	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Improvements	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000	\$8,000
Equipment	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714	\$25,714
Total Depreciation	\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$8,000	\$8,000	\$8,000

Profit & Loss and Cash Flow Projections

Gross Revenue		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	#shifts/year	0.5	1	2	2	2	2	2	2	2	2
Slaughter (beef)		\$10,400	\$20,800	\$41,600	\$41,600	\$41,600	\$41,600	\$41,600	\$41,600	\$41,600	\$41,600
Slaughter (sheep/goat)		\$3,080	\$6,160	\$12,320	\$12,320	\$12,320	\$12,320	\$12,320	\$12,320	\$12,320	\$12,320
Slaughter (pig)		\$6,000	\$12,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000	\$24,000
Processing (beef)		\$77,000	\$154,000	\$308,000	\$308,000	\$308,000	\$308,000	\$308,000	\$308,000	\$308,000	\$308,000
Processing (sheep/goat)		\$3,234	\$6,468	\$12,936	\$12,936	\$12,936	\$12,936	\$12,936	\$12,936	\$12,936	\$12,936
Processing (pig)		\$29,400	\$58,800	\$117,600	\$117,600	\$117,600	\$117,600	\$117,600	\$117,600	\$117,600	\$117,600
Beef patties		\$1,760	\$3,520	\$7,040	\$7,040	\$7,040	\$7,040	\$7,040	\$7,040	\$7,040	\$7,040
Sausage		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other processing		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Drop (hides)		\$3,400	\$6,800	\$13,600	\$13,600	\$13,600	\$13,600	\$13,600	\$13,600	\$13,600	\$13,600
Total Gross Revenue		\$134,274	\$268,548	\$537,096	\$537,096	\$537,096	\$537,096	\$537,096	\$537,096	\$537,096	\$537,096
Less Direct Costs											
Labor - Direct		\$68,900	\$137,800	\$275,600	\$275,600	\$275,600	\$275,600	\$275,600	\$275,600	\$275,600	\$275,600
Supplies		\$3,570	\$7,140	\$14,280	\$14,280	\$14,280	\$14,280	\$14,280	\$14,280	\$14,280	\$14,280
Waste Removal		\$1,189	\$2,378	\$4,756	\$4,756	\$4,756	\$4,756	\$4,756	\$4,756	\$4,756	\$4,756
Laundry		\$600	\$1,200	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400
Net Revenue		\$60,615	\$121,230	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460
Other Income:											
Total Revenue		\$60,615	\$121,230	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460
Operating Costs											
Labor - Admin		\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700	\$24,700
Transportation/trucking		\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000	\$6,000
Utilities		\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000	\$12,000
Telephone/Office Expense		\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400	\$2,400
Rent		\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000	\$60,000
Insurance		\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000	\$15,000
Property Taxes		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Professional fees		\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Maint./contingency (% of total income)	7%	\$4,243	\$8,486	\$16,972	\$16,972	\$16,972	\$16,972	\$16,972	\$16,972	\$16,972	\$16,972
Interest on term debt		\$7,000	\$6,262	\$5,451	\$4,558	\$3,576	\$2,495	\$1,307	\$0	\$0	\$0
Interest on line of credit (%)	10%	////	\$11,000	\$14,000	\$2,500	\$0	\$0	\$0	\$0	\$0	\$0
Start Up Costs		\$19,000	////	////	////	////	////	////	////	////	////
Total Operating Costs		\$151,843	\$147,348	\$158,023	\$145,630	\$142,148	\$141,068	\$139,879	\$138,572	\$138,572	\$138,572
Net Operating Income Before Depreciation		-\$91,228	-\$26,118	\$84,438	\$96,830	\$100,313	\$101,393	\$102,581	\$103,888	\$103,888	\$103,888
Depreciation		\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$33,714	\$8,000	\$8,000	\$8,000
Profit before Taxes (NBT)		-\$124,942	-\$59,832	\$50,723	\$63,116	\$66,598	\$67,679	\$68,867	\$95,888	\$95,888	\$95,888
Income Taxes (%)	40%	\$0	\$0	\$20,289	\$25,246	\$26,639	\$27,071	\$27,547	\$38,355	\$38,355	\$38,355
Profit after Taxes (NAT)		-\$124,942	-\$59,832	\$30,434	\$37,870	\$39,959	\$40,607	\$41,320	\$57,533	\$57,533	\$57,533

\$178,014

Annual Cash Flow		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Beginning Cash Balance		0	\$11,394	\$7,159	\$9,155	\$26,984	\$69,875	\$112,010	\$153,313	\$190,079	\$226,846
Cash In During the Year											
Owners Capital		\$30,000									
Grants		\$200,000									
Term loans		\$70,000									
Working Capital Line of credit		\$110,000	140,000	25,000							
Operating Income		\$60,615	\$121,230	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460
Other cash in											
Total Cash In		\$470,615	\$261,230	\$267,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460	\$242,460
Cash Out During the Year											
Capital Expenditures		\$300,000									
Repayment of loan principal		\$7,378	\$8,116	\$8,928	\$9,821	\$10,803	\$11,883	\$13,071	\$0	\$0	\$0
Repayment of credit line principal	////		\$110,000	\$140,000	\$25,000	\$0	\$0	\$0	\$0	\$0	\$0
Operating Expenses (before depr & taxes)		\$151,843	\$147,348	\$158,023	\$145,630	\$142,148	\$141,068	\$139,879	\$138,572	\$138,572	\$138,572
Income Taxes paid		\$0	\$0	\$20,289	\$25,246	\$26,639	\$27,071	\$27,547	\$38,355	\$38,355	\$38,355
Owner's withdrawals					\$18,935	\$19,979	\$20,304	\$20,660	\$28,766	\$28,766	\$28,766
Other cash out											
Total Cash Out		\$459,221	\$265,465	\$327,240	\$224,632	\$199,569	\$200,326	\$201,157	\$205,694	\$205,694	\$205,694
Ending Cash Balance		\$11,394	\$7,159	\$9,155	\$26,984	\$69,875	\$112,010	\$153,313	\$190,079	\$226,846	\$263,612