

# Business Plan for a New Small USDA Inspected Meat Processing Plant to Serve Local Livestock Producers

Conducted for:

United States Department of Agriculture  
Rural Development

May 23, 2011

Conducted by:

**Food & Livestock**  

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## Section 1            Executive Summary

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This business plan represents a greenfield USDA-inspected generic multiple-species harvest and processing plant. Obviously, this plan will not fit all situations where new small processing plants are needed to service livestock produces across the U.S.; but this plan is designed to be a template that could be modified to fit certain situations. This generic meat processing plant is being planned to provide:

- a) fee-based meat processing services to livestock producers; and
- b) the manufacture of processed meats for sale to wholesale or retail customers.

The plant will be designed to process approximately 25 to 32 beef cattle per week and a similar amount of hogs and lambs (goats are interchangeable with lambs) through one to three days of harvest with the latter part of the week dedicated to boning, grinding, portion cutting, curing, sausage manufacture, cooking, and packaging. It is estimated that 7 to 11 full-time workers will be required to do the work.

The plant is assumed to be built in a rural district, inclusive of a 6,200 sq. ft. building, a dug well for water, a commercial septic system for wastewater treatment, and a compost station for decomposition of waste tissues from the plant. However, similar models can be adapted for the plant located in a municipality to use city services of water and sewer and for rendering to be picked up routinely by a commercial rendering company. The total cost of the building, infrastructure, and equipment is estimated at \$2.4 million. If a term loan would be used for 50 percent of the plant, property and equipment, plus working capital, the company would have to raise approximately \$1.9 million of equity capital.

Total income would be derived from a combination of sales of processing services, sales of processed beef and pork, and the sales of beef hides. Income for processing services was estimated by adding a constant percent margin above operating costs. In the third year of operation, the total cost of processing for each species per animal was predicted at:

Beef	\$279
Pork	\$99
Lamb	\$37
Cull cows	\$222

A financial model predicted the following three-year result:

	<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>
Revenue, \$000	508	942	1,188
EBITDA <sup>a</sup> , \$000	-19	274	430
Net income, \$000	-268	23	175
Return on Sales, %		2%	15%
Return on Equity, %		2%	12%

<sup>a</sup>. Earnings before interest, taxes, depreciation, amortization

These predicted financial returns would be representative of a successful, well-managed food business.

Due to short payment terms on most accounts receivables, the business does not need a line of credit to shore up the monthly cash position.

Custom processing costs were set at a margin above the individual species' processing costs resulting in good profit margins for processing each species. The following net margins were predicted:

<b>Species</b>	<b>annual #s</b>	<b>Net Margins (\$/hd)</b>
Beef cattle	1,200	<b>181</b>
Hogs	1,800	<b>59</b>
Lambs	480	<b>22</b>
Cull cows	360	<b>144</b>
	lbs	(\$/lb)
Plant owned processed beef	15,600	<b>2.98</b>
Plant owned processed pork	12,000	<b>1.18</b>

Maintaining margins is critical in this business and can be assured by

- Satisfying customers
- Producing good quality products
- Monitoring and managing yields
- Monitoring and managing expenses

## Section 2 Introduction

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Throughout the U.S. there seems to be diametrically opposing trends of decreasing numbers of USDA-inspected meat plants providing processing services to producers in contrast to an increasing number of livestock producers desiring to sell meat from their home-grown animals and poultry. Furthermore, there is an increased demand by consumers to buy locally grown foods. In a survey of Oregon and Washington livestock producers in 2005 (Martin and Lawson), 60% said they needed improved access to a USDA-inspected processing facility and 29% claimed this to be a challenge to their business.

It is intuitive to believe a deficiency in number of USDA-inspected plants providing processing services to small producers should lead to producers themselves becoming invested in processing facilities to ensure the availability of these services. However, many past attempts by groups of producers to own and run processing plants have resulted in financial failures. There is no one predominant reason why this occurs but inexperience, mismanagement, and production-driven, rather than a market-driven business, are common factors amongst failures. It takes experienced and skilled meat industry people to understand the nuances of the meat industry and to manage working capital demands of running a meat plant. A better business model is for a group of livestock producers to develop a working relationship with

- an existing USDA-inspected plant;
- a newly built USDA-inspected plant owned exclusively or in part by an experienced meat industry person; or
- assist an existing non-USDA inspected plant to upgrade facilities to become USDA inspected.

It may be good business for livestock producers to purchase shares in a meat plant but leave the day-to-day operations and financial management to someone experienced in running a meat business.

This business plan assumes the building of a new, efficient, USDA-inspected meat processing plant capable of harvesting several amenable species (cattle, hogs, lambs/goats) of livestock and boning, grinding, and further processing the meat into value-added products. This business plan accompanies a separate business plan that organizes a producer-owned marketing company growing livestock for and selling meat products from the plant.

## **Section 3 Marketing Plan**

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### **3.1 Target Markets**

The plant's primary income is selling processing services. This being the case, the primary customer is the livestock producer or a livestock producer-owned marketing company.

Secondary customers of the meat plant are direct customers purchasing processed meat products described in the next section. The possible venues for selling these processed meats are the plant itself (if it has some retail space within the plant) or other local retail or wholesale opportunities.

### **3.2 Products and Services Offered**

- USDA-inspected slaughter, boning, grinding, portion cutting, curing, processed meats manufacture, and packaging services.
- Sales of meat carcasses, sides, quarters and bundles.
- Plant-owned USDA-inspected processed meats:
  - Beef jerky
  - Beef snack sticks
  - Ground beef chubs
  - Pork ham
  - Pork bacon
  - Pork sausage

### **3.3 Product Volume and Growth Expectations**

Most small plants have a minimum of two people performing the harvesting and dressing procedures. There may be an extra person bringing up animals, working with offal, hides, heads, and waste tissues on the harvest floor. Many efficient harvest operations can process at a rate equal to or exceeding 0.8 beef animals per man-hour. Using two people harvesting and dressing the carcasses will usually result in 12 beef carcasses dressed and hanging in the carcass coolers in one day. In small operations, harvesting is usually done early in the week with the same processors boning and processing the end of the week.

For the purposes of this business plan, we'll assume beef will be harvested two days per week and the other species will be harvested in one to one and a half days with the remainder of the week dedicated to boning and further processing.

The plant also anticipates processing 500 to 600 lbs per week of beef and pork subprimals into further processed meats, which will be sold to the public.

It would be likely that processing begins in year one of the new plants with volumes of at least half of that described above with incremental growth every month. The harvest floor should accommodate twice the volume anticipated. The plant should be designed such that carcass coolers and refrigerated and frozen storage can be expanded if added capacity is needed in the future.

### **3.4 Marketing Budget and Requirements**

Print advertising in local newsprint would be advisable to let producers know of impending USDA-inspected processing services.

If plant-owned processed beef and pork is to be marketed through retail stores in the area, an attractive label should be produced for them. To enhance sales, point-of-purchase promotional literature and signage may also be necessary.

To develop and print labels and to conduct some initial “plant opening soon” advertising, an initial budget of \$10,000 with an annual budget of \$6,000 is assumed. One can get quite extravagant with label development and printing to where the budget could be at least doubled.

### **3.5 Storage and Distribution**

The meat processing plant should be designed to have adequate refrigerated and frozen storage capacity for their customer’s products. Refrigerated boxed storage should be adequate for up to 7 days beyond processing. Frozen storage is adequate for several weeks beyond processing.

Much of the plant-owned processed meats will be sold at the plant; however, products sold in other retail venues can be easily distributed using large coolers transported in a pickup truck unless a distribution company picks the products up at the plant.

### **3.6 Competition**

Due to the apparent need for more USDA-inspected meat processing plants to serve farmers, it is assumed there is little to no competition for USDA-inspected custom processing services in the region.

For customers that do not require USDA inspection, this plant would have competition from several regional custom-exempt small plants.

For processed meat items, most products produced outside the region that would be similar to those produced by this plant would be considered competition.

## **Section 4            Meat Processing Requirements**

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### **4.1    Byproducts/Waste Products**

The greatest liability to a new meat plant is disposal of waste products. Materials such as waste fat, most bones, blood, and inedible offal represent a significant percentage of the animal's carcass that must be disposed of. In the U.S., these are often picked up by rendering companies who process them into animal supplements. However, there are often no rendering companies close to these plants, which results in costly "pick-up" charges by companies many miles and in some cases, many states away. Therefore, the following is a discussion of various materials and their target market opportunity or disposal options.

#### **4.1.1    *Hides***

Fresh "green" hides would be picked up routinely by a hide company. The plant will have to manage hides to prevent their deterioration. Salt curing is the most effective method of preventing deterioration and increasing the flexibility of marketing hides to a variety of customers. Initially, hides will be laid out salted and stored in a facility adjacent to or in a subterranean portion of the plant.

#### **4.1.2    *Offal***

Initially, the tongue, liver, and oxtail from cattle and the heart and hocks from hogs will be cleaned, frozen, and packaged for specific customers. The remaining offal (kidney, lungs, stomach and some hearts) would be considered waste material for disposal.

#### **4.1.3    *Bones/ Fat/ Tissue***

The heads, hooves, bones, waste fat, and soft tissue of inedible offal will be disposed of utilizing the strategies outlined in the next section (Section 4.2).

#### **4.1.4    *Blood***

Fresh blood will be collected at the plant. Some of it can be collected in stainless steel receptacles and sold if the price justifies it. Some of the blood could be used by farms for fertilizer. However, most of the blood will be disposed of along with the other waste materials as discussed in the next section (Section 5.2).

#### **4.1.5    *Paunch***

Paunch is the material left in the rumen of cattle and lambs when the animal is harvested/slaughtered. This material can be used for fertilizer and can be fed back to animals as a small percentage of the diet. Also, this material can be disposed of in

the same manner as other waste materials discussed in the next section (Section 4.2)

## **4.2 Disposal of Waste Materials**

There are typically three options for disposal of waste tissues from a small meat plant:

- Pick up by a rendering company for a fee. The fees depend on volume and distance from the rendering plant. A common pricing strategy is to charge by volume (\$x per 55 gallon drum or barrel). Many rendering companies will take blood as well as bones, inedible organs, meat scraps, fat, hooves, and heads. Some companies will pick up hides and debit the value from the cost of the rendering pick-up.
- Incineration. There are commercially-available incinerators for burning all unwanted tissues. The disadvantage to this strategy is the energy cost to fuel the incinerator and the emission concerns from neighbors if the plant is located near other businesses or residences.
- Composting. Stockpiling waste tissues (fat, bones, inedible organs, heads, hooves, and blood) is becoming increasingly popular with small plants as rendering pick-up costs increase and composting experience improves.

A concrete pad is poured in a selected area close to the plant and often curbed to prevent run-off of leachate. Dry ground wood chips or other forms ground organic matter is required for mixing with the waste materials from the plant for proper microbial growth in the compost pile. The grinding of long bones and head bones is often necessary to reduce particle size. Inedible offal soft tissue, bones, inedible fat, blood and paunch will be added daily to the compost pile and covered with the ground organic matter and the piles turned with a loader at least once per week. After the compost has had adequate time to fully decompose, the resultant material can be used for organic fertilizer. Financial models in this business plan assume that composting will be the strategy used to dispose of waste materials. Due to state restrictions, small plants in California are not allowed to compost.

## **4.3 Treatment of Specified Risk Materials**

Due to issues with Bovine Spongiform Encephalomyelitis (BSE), the heads and small intestines of beef cattle (cows or cattle under 30 months) will not be sold for human consumption and will be composted. The only Specified Risk Materials (SRM's) of beef carcasses that need disposal are the spinal column and tonsils (when selling beef tongues). For beef cows over 30 months, the entire head, the vertebral bone, and dorsal

root ganglia must also be removed and disposed of. These materials will be composted or land-filled. Sheep heads should be handled in the same way as cow heads.

## **4.4 Effluent and Water Use**

### **4.4.1 Water use**

Beef will require approximately 300 – 450 gallons of water per animal carcass per day. Therefore, this is also the approximate volume of wastewater produced. The water should be potable, good quality (low nitrates and sulfates), and have high volume per gallon. Small stock uses less than 100 gallons per animal. If the source of water is an on-premise well, water tests for water quality should be conducted.

### **4.4.2 Wastewater**

The most sensitive and critical part of planning a new slaughter plant or expanding an existing plant is the effluent or wastewater system. All process wastewater (effluent) from the slaughter floor should pass through a screen to catch and separate solids. Screened effluent pumps and pipe system will convey screened process wastewater to the proposed effluent treatment system.

A five-day Biological Oxygen Demand (BOD) value is used to measure the level of treatment needed to discharge effluent safely. The BOD for all food-processing effluent is relatively high compared to other industries. A high BOD level indicates that effluent contains elevated amounts of dissolved and suspended solids, minerals and organic nutrients containing nitrogen and phosphorus. The following is assumed for a small multi-species plant:

- Average daily process flow of 2,500 gallons per day of wastewater based on a 7-day average. The peak daily flows = 6,000 gallons per day when harvesting cattle. It may be necessary to utilize a surge tank to collect daily wastewater effluent to be released at an even prescribed rate into a municipality or into the plant's own treatment system.
- Incoming BOD into treatment – maximum of 1,600 mg/l
- Total suspended solids – 300 to 500 mg/l
- Total nitrogen = 140 to 160 mg/l

The simplest strategy for handling effluent is accessing a municipal sewage line and allow the municipality to treat the effluent if there is the capacity to do so. If the municipal plant is not accessible or does not have the capacity, the plant will have to treat their own effluent. There are several options for the plant to treat its own effluent and a licensed wastewater engineer should be engaged to design a system specific for the plant and its own area of the country. For the purposes of this business plan, a commercial septic tank system and drain field will be the technology used to treat the wastewater.

## **4.5 Permits and Certifications**

### **4.5.1 HACCP**

This establishment will prepare a written Hazard Analysis Critical Control Point (HACCP) program and all the prerequisite programs that go along with it including Sanitation Standard Operating Procedures (SSOP) and Good Manufacturing Practices (GMP's). These programs should be written by someone that is HACCP certified.

### **4.5.2 Organic certification**

It is assumed that some of the customers of the plant will have organic certified animals and would like to merchandise the meat with certified organic labels. In order to accomplish this, the plant must also be third-party organic certified by a certifying agency approved by the USDA.

## **4.6 Humane Handling and Stress on the Animals**

There are number of factors that cause stress in livestock such as handling, transport, weather conditions, and severe restrictive confinement. Severe stress increase the release of cortisone in the animal, which can cause a number of biochemical effects and can affect muscle pH, water holding capacity, meat color and texture. Therefore, it is important to reduce the stress as much as possible before harvesting these animals. Animals should not be overcrowded in trailers and pens when being penned or transported, Animal handling facilities, animal movement, and penning techniques prescribed by Dr. Temple Grandin should be considered at the packing plant.

## **4.7 Dry Aging**

Some customers require their beef to be dry aged as an important sales benefit. Dry aging is the traditional process of placing either an entire carcass or subprimal (without covering or packaging) in a refrigerated room for 14 to 21 days at 80 – 85% relative humidity and with an air velocity of 0.5 – 2.5 m/sec. In some cases, shrouds may be used to cover the carcass. In this business plan, if a customer desires beef to be dry aged, the carcasses will be routinely boned within 48 hours and the specific subprimal to be dry aged will be placed on either a rack or hung from the rails on a tree in the carcass hold cooler for the prescribed number of days. Financial models in this plan do not include dry aging of entire carcasses for extended periods of time. If this is desired by customers, an additional fee representing lost opportunity costs for tying up carcass rails for up to three weeks and increased time for boning carcasses due to a dryness of the meat should be demanded.

## Section 5 Meat Processing II. Meat Processing Plan

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### 5.1 Size and Scope

It is anticipated that labor will be utilized in such a way as a work crew will harvest the animals on a specific day early in the week and then the same crew will bone and fabricate the carcasses on separate days after the harvest is completed. The plant size will be designed for the number and type of animals processed, the size of the carcasses, and the length of time the carcasses need to be chilled before boning. For the purposes of this business plan, the following species and numbers processed per week will be used:

Table 5.1 Species and numbers of animals processed per week

<b>Species</b>	<b># Carcasses per week</b>	<b>Carcass chill time before boning, hrs</b>
Beef cattle	25 – 32	48
Hogs	30 – 40	24
Lambs/goats	10 - 20	24

### 5.2 Plant, Property, and Equipment

This business plan will use a 6,200 sq. ft. steel building inclusive of room sizes detailed in Section 5.2.1 in order to accommodate the number of animals and carcass chilling time shown in the table above.

### 5.2.1 Processing room sizes

Table 5.2.1 Room size estimates for the plant

	Sq. footage
Harvest floor	600
Inedible cooler	144
Carcass drip cooler (hot box)	320
Carcass aging cooler	550
Cutting/boning room	412
Packaging room	400
Blast freezer	160
Storage freezer	400
Storage cooler	600
Fresh sausage room (includes 64 sq. ft. cooler)	600
Spice room	72
Supply room	225
Storage (hooks, etc.)	100
Office, welfare, retail	900
Maintenance room (compressors, etc)	270
Hallway	304
<b>Total building</b>	<b>6,177</b>
Estimated building-only cost	\$150
	\$926,550

### 5.2.2 Equipment

The exact listing and cost of equipment is highly specific to the following:

- Location of the plant.
- Amount of used and new equipment available to be purchased .
- Amount of sophistication desired (i.e., removing hides off-rail using a cradle or on-rail with a mechanical hide-puller).

For the purposes of this business plan, the following equipment list will be used and the total cost representative of 90 percent new equipment purchases:

Table 5.2.2 Estimated equipment listing

<u>Department</u>	<u>Equipment</u>
Harvest	Restrainer
Harvest	Captive bolt stunner
Harvest	Hoist (bleeding)
Harvest	Beef cradle
Harvest	Hog cradle
Harvest	Hide pulling hoist
Harvest	Splitting saw
Harvest	Brisket saw

Harvest	Breaking saw
Harvest	Trolleys (beef and hogs)
Harvest	Trolley spreader
Harvest	Trolley rack
Harvest	Stainless steel stand (final rail)
Harvest	Gut buggy
Harvest	Offal cart
Harvest	Hydraulic lift for final rail
Harvest	High pressure hose
Harvest	Pressure pump
Harvest	Plastic barrels
Harvest	Head racking & washing
Harvest	Electronic rail scale
Harvest	Sterilizers
Harvest	S.S. desk
Coolers	2-way switches
Coolers	Railing
Coolers	Rail hangers
Coolers	Lactic acid sprayer
Fabrication	Stainless steel tables
Fabrication	Knives, steel, scabbard
Fabrication	Knife sharpener
Fabrication	Band saw
Further processing	Meat mixer/grinder
Further processing	Mixer
Further processing	Various totes and s.s. containers
Further processing	Portioner for grinder
Further processing	Stainless steel tables
Further processing	Sausage stuffer w/ linker
Further processing	Meat injectors
Further processing	Vacuum tumbler
Further processing	Bacon slicer
Further processing	2-truck smoker/cooker
Further processing	Portion weight scales
Packaging	Misc. freezer carts and baskets
Packaging	Roll stock packaging machine
Packaging	Chamber vacuum packaging machine
Packaging	Dip tank or steam tunnel
Packaging	Floor scale
Packaging	Scale labeler
Packaging	Box strapper
Packaging	Box scale labeler
Packaging	Ice machine
Shipping	Pallet jack
General plant	Hand wash sink
General plant	Rotary screen
General plant	Tools
General plant	Wall thermometers
General plant	Temperature recorder
General plant	Miscellaneous equipment

General plant	Blood tank
General plant	Paunch tanks
General plant	Hot water heater
General plant	Foamer
General plant	Pressure washer
General plant	Skid steer loader
General plant	Rendering totes
General plant	Pumps
Laboratory	Refrigerator
Laboratory	Incubator/counter
Laboratory	Scale
Welfare	Lockers
Welfare	Misc. employee kitchen equip.

This equipment listing with 90% new equipment is estimated at **\$450,000**.

### 5.2.3 Total plant and property costs

Table 5.2.3 Estimated Plant and Property capital costs of the project

	<b>Plant &amp; Property, (\$)</b>
Land (10 acres)	200,000
Building	926,550
Dirt work, roads, connections	150,000
Refrigeration	300,000
Hide building	60,000
Commercial septic tank & drain field	150,000
Concrete slab for compost	50,000
Animal receiving pens/concrete	100,000
<b>Total</b>	<b>1,936,550</b>

**Disclaimer:** The costs represented in Table 5.2.1, 5.2.2, and 5.2.3 are conceptual only based on company experience with similar-sized operations. These estimated costs have not been confirmed by an engineering or construction company.

### 5.3 Expected Manning and Labor Expense

Table 5.3 Expected manning and labor expense

<b>Direct Labor</b>		<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>
# Direct plant workers		<b>5</b>	<b>7</b>	<b>8</b>
direct hourly rate, \$/hr		13.00	13.25	13.50
tax & benefits (30%)		16.90	17.23	17.55
direct labor costs/mo.		13,520	19,292	22,464
<b>Indirect Labor</b>		<b>Yr 1</b>	<b>Yr 2</b>	<b>Yr 3</b>
	<b>Number People</b>	Annual Salary	Annual Salary	Annual Salary
Plant manager	1	\$80,000	\$82,000	\$84,050
Quality Control/utility <sup>a</sup>	0	\$0	\$0	\$0
Clerical/data	1	\$35,000	\$35,875	\$36,772
Total	2	\$115,000	\$117,875	\$120,822
Number of all workers		<b>7</b>	<b>9</b>	<b>10</b>

<sup>a</sup>. Work carried out by manager or designee

## 5.4 Expected Processing Expense

Table 5.4 Processing expense<sup>a, b, c</sup>

	Beef	Pork	Lamb	Cull cows	Year 3				
	\$/hd	\$/hd	\$/hd	\$/hd	Beef	Pork	Lamb	Cull cows	Total
<b># Animals Processed/month</b>					100	150	40	30	
<b>Variable Expense</b>									
Total Packaging	25.00	7.50	6.50	17.50	2,500	1,125	260	525	4,410
Lab Fees	1.00	0.25	0.25	1.00	100	38	10	30	178
Inspection Overtime	5.00	1.00	1.00	5.00	500	150	40	150	840
Composting expense	5.00	1.00	1.00	5.00	500	150	40	150	840
<b>Total variable expense</b>	36.00	9.75	8.75	28.50	3,600	1,463	350	855	6,268
<b>Fixed Expense</b>	<b>Yr 1, /mo.</b>	<b>Yr 2/mo.</b>	<b>Yr 3/mo.</b>						
Supplies	1,500	2,000	2,500		1,363	750	63	325	2,500
Repair and Maintenance	1,500	2,000	2,500		1,363	750	63	325	2,500
Laundry - Linen Supplies	500	600	700		382	210	18	91	700
Insurance	2,000	2,250	2,500		1,363	750	63	325	2,500
Electricity	1,800	2,000	2,100		1,145	630	53	273	2,100
Gas	750	850	1,000		545	300	25	130	1,000
Water, sewer & garbage	100	110	120		65	36	3	16	120
Total Utilities	2,650	2,960	3,220		1,755	966	81	419	3,220
Misc. expense	500	500	500		273	150	13	65	500
Pest control	100	100	100		55	30	3	13	100
License and bonds	50	50	50		27	15	1	7	50
Subtotal	8,800	10,460	12,070		6,578	3,621	302	1,569	12,070
Payroll									
Direct labor - wages	13,520	19,292	22,464		12,243	6,739	562	2,920	22,464
Management	9,583	9,823	10,068		5,487	3,021	252	1,309	10,068
<b>Total fixed expense</b>					24,308	13,381	1,115	5,798	44,602
<b>Total expense, fixed + variable</b>					27,908	14,843	1,465	6,653	50,870
<b>Cost per beef, \$</b>					<b>279</b>				
<b>Cost per hog, \$</b>						<b>99</b>			
<b>Cost per lamb, \$</b>							<b>37</b>		
<b>Cost per cull cow, \$</b>								<b>222</b>	
<b>Cost per beef with margin</b>			65%		<b>460</b>				
<b>Cost per hog with margin</b>			60%			<b>158</b>			
<b>Cost per lamb with margin</b>			60%				<b>59</b>		
<b>Cost per cull cow with margin</b>			65%					<b>366</b>	

<sup>a</sup> Years 1 and 2 were not included due to space. They are available in accompanying financial models.

- b. To determine individual species' costs, total expenses were multiplied by a standard percentage of estimated time that a particular species will take to process in a given week.
- c. The actual cost of processing by species should guide the custom fees charged to customers. A margin should be added to the breakeven processing charges to determine the actual custom fees charged to customers.

## 5.5 Further Processing Yields, Costs, and Product Prices

Table 5.5 Further processing yields, costs, and prices

Species	Products Manufactured	Raw materials	Raw costs, \$/lb <sup>a</sup>	Finished weight, % <sup>b</sup>	Finished Yield, % <sup>c</sup>	Finished Price, \$/lb <sup>d</sup>	Processing Costs, \$/lb <sup>e</sup>
<b>Beef</b>	Beef jerky	Inside round		23			
	Cooked sausage	Lean trimmings		20			
	Ground beef chubs	Lean trimmings		57			
	<b>Total</b>		<b>\$ 1.60</b>	<b>100</b>	<b>73</b>	<b>\$ 8.50</b>	<b>\$ 3.33</b>
<b>Pork</b>	Ham	Leg		27			
	Fresh sausage	Leg & picnic		40			
	Bacon	Belly		33			
	<b>Total</b>		<b>\$ 1.16</b>	<b>100</b>	<b>79</b>	<b>\$ 3.50</b>	<b>\$ 0.85</b>

<sup>a</sup> composite cost using USDA 2010 subprimal averages

<sup>b</sup> percentages of finished product are somewhat arbitrary

<sup>c</sup> composite yield of finished weight divided by green weight

<sup>d</sup> composite wholesale price of individual product wholesale prices

<sup>e</sup> composite processing costs

## **Section 6                      Corporate and Management Plan**

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### **6.1      Organizational Structure**

There are several options to legally structure the meat processing business. The most likely options are a standard C corporation, Sub-chapter S corporation, or limited liability company (LLC). A typical C corporation is a simple structure which can accommodate many owners but has complications when solicitation for the selling of stock to those investors and requires securities registration. The latter two are the most logical because of elimination of double taxation. A business law firm in the area should be engaged to guide this process.

### **6.2      Governance and Management**

This business will be governed by the Board of Directors or Board of Governors, in the case of a LLC, made up of share-holders of the business. The Board will hire the plant manager to run the day-to-day operations of the plant.

Financial accounts will be kept on a daily basis by a plant employee or someone hired as a service provider. These accounts should be made available to the Board on a monthly or quarterly basis.

The plant manager has a large responsibility and has to oversee, and in most cases with a small plant, has to do many of the activities including:

- Financial oversight. Paying bills, managing cash flow, accounts payables and receivables, and working with lenders.
- Personnel management. Hires and manages all workers.
- Quality control. Oversees HAACP, sample collection, liaison with USDA FSIS.
- Processing operations. Manages all day-to-day processing activities and determines processing schedule.
- Customer service. The key contact for all customers.
- Regulatory compliance. Oversees all environmental and municipal permits and OSHA workforce safety compliance.

Obviously, the plant manger will get assistance from other employees or outside services for many of these activities; but is still responsible for oversight or management of the activity.

### **6.3 Issuance of Shares**

The share value and the number of shares issued are dependent on the total capital requirements and the total number of investors expected. In some cases the shares are held by a single individual or family and in other cases, they are held by several investors.

## **Section 7            Financial Plan**

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### **7.1    Development of Business Enterprise Model and Outcomes**

A business enterprise model was developed, which is able to simulate business outcomes across differing inputs. As in the case with any model, the financial predictions are only as good as the assumptions used.

#### **7.1.1    *Revenue expectations, raw material costs, cost of production assumptions***

- Revenue
  - Revenue from custom processing comes from a margin above processing costs (Table 5.3).
  - Revenue from processed meats was derived from Table 5.4.
- Prices paid for beef and pork subprimals came from USDA 2010 reported commodity prices.
- Processing expenses derived from FLPI data.
- Year 0 is representative of the plant construction year.
- The plant was depreciated for 30 years and the equipment for 7 years.
- Long term debt is financed at 10% interest for a term of 10 years.

### **7.2    Finance Statements**

Table 7.2.1 Monthly income statement and cash flows of 1<sup>st</sup> year in operation

	Mo 1	Mo 2	Mo 3	Mo 4	Mo 5	Mo 6	Mo 7	Mo 8	Mo 9	Mo 10	Mo 11	Mo 12	Total
<b>Revenue</b>													
Custom beef	4,605	6,907	9,210	11,512	11,512	13,815	18,420	20,722	23,024	25,327	27,629	32,234	204,917
Custom pork	3,167	4,750	6,333	7,916	7,916	9,500	11,083	12,666	12,666	12,666	14,250	14,250	117,163
Custom lamb	586	586	1,172	1,465	1,465	1,758	1,758	1,758	2,051	2,051	2,051	2,051	18,753
Custom cull cow	1,830	1,830	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	3,659	40,253
Plant owned processed beef	5,950	6,800	7,650	7,650	7,650	7,650	7,650	7,650	8,500	8,500	8,500	8,500	92,650
Plant owned processed pork	1,750	2,100	2,450	2,450	2,450	2,450	2,450	2,450	2,800	2,800	2,800	2,800	29,750
Beef hides	215	220	430	435	435	440	450	455	460	465	470	480	4,955
<b>Total revenue</b>	<b>18,102</b>	<b>23,193</b>	<b>30,904</b>	<b>35,088</b>	<b>35,088</b>	<b>39,272</b>	<b>45,470</b>	<b>49,361</b>	<b>53,161</b>	<b>55,468</b>	<b>59,359</b>	<b>63,974</b>	<b>508,440</b>
<b>Cost of goods sold</b>													
Meat bought for processing													
Beef subprimals	1,534	1,753	1,973	1,973	1,973	1,973	1,973	1,973	2,192	2,192	2,192	2,192	23,890
Pork subprimals	734	881	1,028	1,028	1,028	1,028	1,028	1,028	1,175	1,175	1,175	1,175	12,481
Processing costs - Beef	2,331	2,664	2,997	2,997	2,997	2,997	2,997	2,997	3,330	3,330	3,330	3,330	36,297
Processing costs - Pork	425	510	595	595	595	595	595	595	680	680	680	680	7,225
<b>Total cost of goods sold</b>	<b>5,024</b>	<b>5,808</b>	<b>6,592</b>	<b>6,592</b>	<b>6,592</b>	<b>6,592</b>	<b>6,592</b>	<b>6,592</b>	<b>7,376</b>	<b>7,376</b>	<b>7,376</b>	<b>7,376</b>	<b>79,893</b>
<b>Gross Margin</b>	<b>13,078</b>	<b>17,384</b>	<b>24,312</b>	<b>28,496</b>	<b>28,496</b>	<b>32,679</b>	<b>38,877</b>	<b>42,768</b>	<b>45,785</b>	<b>48,092</b>	<b>51,983</b>	<b>56,598</b>	<b>428,547</b>
<b>Expenses</b>													
Plant direct labor	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	13,520	162,240
Plant direct costs	11,414	11,414	11,414	11,414	11,414	11,414	11,414	11,414	11,414	11,414	11,414	11,414	136,970
<b>G &amp; A</b>													
Property taxes	210	210	210	210	210	210	210	210	210	210	210	210	2,520
Office supplies	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Professional fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounting fees	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Meals and entertainment	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Marketing costs	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Brokerage @ 4.5%- x% of volume	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin. Labor	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	9,583	115,000

Office/utilities/phone	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Postage	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Travel expenses	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Miscellaneous expense	100	100	100	100	100	100	100	100	100	100	100	100	1,200
<b>Total operating expenses</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>37,327</b>	<b>447,930</b>
<b>EBITDA</b>	<b>(24,250)</b>	<b>(19,943)</b>	<b>(13,016)</b>	<b>(8,832)</b>	<b>(8,832)</b>	<b>(4,648)</b>	<b>1,550</b>	<b>5,441</b>	<b>8,457</b>	<b>10,765</b>	<b>14,655</b>	<b>19,270</b>	<b>(19,383)</b>
Interest expense	9,895	9,846	9,796	9,746	9,695	9,644	9,593	9,541	9,488	9,436	9,382	9,329	115,389
Depreciation expense	10,736	10,800	10,865	10,930	10,996	11,063	11,131	11,199	11,268	11,339	11,409	11,481	133,218
<b>Net income (loss)</b>	<b>\$ (44,881)</b>	<b>\$ (40,589)</b>	<b>\$ (33,676)</b>	<b>\$ (29,508)</b>	<b>\$ (29,523)</b>	<b>\$ (25,355)</b>	<b>\$ (19,173)</b>	<b>\$ (15,299)</b>	<b>\$ (12,300)</b>	<b>\$ (10,009)</b>	<b>\$ (6,136)</b>	<b>\$ (1,540)</b>	<b>\$ (267,990)</b>
	<b>Mo 1</b>	<b>Mo 2</b>	<b>Mo 3</b>	<b>Mo 4</b>	<b>Mo 5</b>	<b>Mo 6</b>	<b>Mo 7</b>	<b>Mo 8</b>	<b>Mo 9</b>	<b>Mo 10</b>	<b>Mo 11</b>	<b>Mo 12</b>	<b>Total</b>
<b>Statement of Cash Flows</b>													
Net income (loss)	\$ (44,881)	\$ (40,589)	\$ (33,676)	\$ (29,508)	\$ (29,523)	\$ (25,355)	\$ (19,173)	\$ (15,299)	\$ (12,300)	\$ (10,009)	\$ (6,136)	\$ (1,540)	\$ (267,990)
Depreciation	10,736	10,800	10,865	10,930	10,996	11,063	11,131	11,199	11,268	11,339	11,409	11,481	133,218
Changes in operating assets and liabilities:													
Accounts receivable	(18,102)	(5,091)	(7,711)	(4,184)	-	(4,184)	(6,198)	(3,891)	(3,800)	(2,307)	(3,891)	(4,615)	(63,974)
Inventory	(261)	(261)	-	-	-	-	-	(261)	-	-	-	-	(784)
Accounts payable	11,926	131	87	-	-	-	-	44	87	-	-	-	12,274
Net cash used in operating activ.	(40,582)	(35,010)	(30,436)	(22,761)	(18,527)	(18,476)	(14,241)	(8,208)	(4,745)	(978)	1,382	5,327	(187,256)
<b>Investing activities</b>													
PPE purchases	(5,357)	(5,421)	(5,485)	(5,551)	(5,617)	(5,684)	(5,751)	(5,820)	(5,889)	(5,959)	(6,030)	(6,102)	(68,666)
<b>Financing activities</b>													
Loan principal payments	(5,874)	(5,924)	(5,973)	(6,024)	(6,074)	(6,125)	(6,177)	(6,229)	(6,281)	(6,334)	(6,387)	(6,441)	(73,841)
Line of credit, net	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' distributions	-	-	-	-	-	-	-	-	-	-	-	-	-
	(5,874)	(5,924)	(5,973)	(6,024)	(6,074)	(6,125)	(6,177)	(6,229)	(6,281)	(6,334)	(6,387)	(6,441)	(73,841)
Net increase (decrease) in cash	(51,814)	(46,355)	(41,895)	(34,336)	(30,218)	(30,285)	(26,169)	(20,257)	(16,915)	(13,271)	(11,035)	(7,216)	(329,764)
Cash at beginning of period	370,000	318,186	271,832	229,937	195,602	165,384	135,099	108,930	88,673	71,758	58,487	47,452	370,000
Cash at end of period	\$ 318,186	\$ 271,832	\$ 229,937	\$ 195,602	\$ 165,384	\$ 135,099	\$ 108,930	\$ 88,673	\$ 71,758	\$ 58,487	\$ 47,452	\$ 40,236	\$ 40,236

Table 7.2.2 Monthly income statement and cash flows of 2<sup>nd</sup> year in operation

	Mo 13	Mo 14	Mo 15	Mo 16	Mo 17	Mo 18	Mo 19	Mo 20	Mo 21	Mo 22	Mo 23	Mo 24	Total
<b>Revenue</b>													
Custom beef	32,234	34,537	36,839	36,839	36,839	36,839	36,839	36,839	36,839	39,141	39,141	39,141	442,068
Custom pork	15,833	17,416	18,999	18,999	18,999	18,999	18,999	18,999	18,999	18,999	18,999	18,999	223,242
Custom lamb	2,051	2,051	2,051	2,051	2,051	2,051	2,051	2,051	2,051	2,051	2,051	2,051	24,613
Custom cull cow	7,319	7,319	7,319	7,319	7,319	7,319	7,319	7,319	7,319	7,319	7,319	7,319	87,824
Plant-owned processed beef	8,500	9,350	9,350	9,350	9,350	9,350	9,350	10,200	10,200	10,200	10,200	10,200	115,600
Plant-owned processed pork	2,800	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	37,450
Beef hides	890	895	900	900	900	900	900	900	900	905	905	905	10,800
<b>Total revenue</b>	<b>69,627</b>	<b>74,717</b>	<b>78,608</b>	<b>78,608</b>	<b>78,608</b>	<b>78,608</b>	<b>78,608</b>	<b>79,458</b>	<b>79,458</b>	<b>81,766</b>	<b>81,766</b>	<b>81,766</b>	<b>941,598</b>
<b>Cost of goods sold</b>													
Meat bought for processing													
Beef subprimals	2,192	2,411	2,411	2,411	2,411	2,411	2,411	2,630	2,630	2,630	2,630	2,630	29,808
Pork subprimals	1,175	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	1,322	15,711
Processing costs - Beef	3,330	3,663	3,663	3,663	3,663	3,663	3,663	3,996	3,996	3,996	3,996	3,996	45,288
Processing costs - Pork	680	765	765	765	765	765	765	765	765	765	765	765	9,095
<b>Total cost of goods sold</b>	<b>7,376</b>	<b>8,160</b>	<b>8,160</b>	<b>8,160</b>	<b>8,160</b>	<b>8,160</b>	<b>8,160</b>	<b>8,713</b>	<b>8,713</b>	<b>8,713</b>	<b>8,713</b>	<b>8,713</b>	<b>99,903</b>
<b>Gross Margin</b>	<b>62,250</b>	<b>66,557</b>	<b>70,448</b>	<b>70,448</b>	<b>70,448</b>	<b>70,448</b>	<b>70,448</b>	<b>70,745</b>	<b>70,745</b>	<b>73,053</b>	<b>73,053</b>	<b>73,053</b>	<b>841,695</b>
<b>Expenses</b>													
Direct plant labor	19,292	19,292	19,292	19,292	19,292	19,292	19,292	19,292	19,292	19,292	19,292	19,292	231,504
Direct plant costs	15,362	15,362	15,362	15,362	15,362	15,362	15,362	15,362	15,362	15,362	15,362	15,362	184,343
G & A													
Property taxes	210	210	210	210	210	210	210	210	210	210	210	210	2,520
Office supplies	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Professional fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounting fees	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Meals and entertainment	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Marketing fixed costs	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Brokerage @ 4.5%- x% of volume	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin. Labor	9,823	9,823	9,823	9,823	9,823	9,823	9,823	9,823	9,823	9,823	9,823	9,823	117,875

Office/utilities/phone	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Postage	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Travel expenses	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Miscellaneous expense	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Total operating expenses	47,287	47,287	47,287	47,287	47,287	47,287	47,287	47,287	47,287	47,287	47,287	47,287	567,442
EBITDA	14,963	19,270	23,161	23,161	23,161	23,161	23,161	23,459	23,459	25,766	25,766	25,766	274,254
Interest expense	9,274	9,220	9,165	9,109	9,053	8,997	8,940	8,883	8,825	8,766	8,708	8,648	107,589
Depreciation expense	11,554	11,627	11,702	11,777	11,853	11,930	12,008	12,087	12,167	12,248	12,330	12,412	143,696
Net income (loss)	\$ (5,865)	\$ (1,577)	\$ 2,294	\$ 2,274	\$ 2,254	\$ 2,234	\$ 2,213	\$ 2,489	\$ 2,467	\$ 4,752	\$ 4,729	\$ 4,705	\$ 22,969
	<b>Mo 13</b>	<b>Mo 14</b>	<b>Mo 15</b>	<b>Mo 16</b>	<b>Mo 17</b>	<b>Mo 18</b>	<b>Mo 19</b>	<b>Mo 20</b>	<b>Mo 21</b>	<b>Mo 22</b>	<b>Mo 23</b>	<b>Mo 24</b>	<b>Total</b>
<b>Statement of Cash Flows</b>													
Net income (loss)	\$ (5,865)	\$ (1,577)	\$ 2,294	\$ 2,274	\$ 2,254	\$ 2,234	\$ 2,213	\$ 2,489	\$ 2,467	\$ 4,752	\$ 4,729	\$ 4,705	\$ 22,969
Depreciation	11,554	11,627	11,702	11,777	11,853	11,930	12,008	12,087	12,167	12,248	12,330	12,412	143,696
Changes in operating assets and liabilities:													
Accounts receivable	(5,653)	(5,091)	(3,891)	-	-	-	-	(850)	-	(2,307)	-	-	(17,791)
Inventory	(261)	-	-	-	-	-	(184)	-	-	-	-	(261)	(707)
Accounts payable	3,991	87	-	-	-	-	31	61	-	-	-	44	4,214
Net cash used in operating activities	3,766	5,047	10,105	14,051	14,107	14,164	14,067	13,787	14,634	14,692	17,059	16,900	152,380
<b>Investing activities</b>													
PPE purchases	(6,175)	(6,248)	(6,322)	(6,398)	(6,474)	(6,551)	(6,629)	(6,708)	(6,788)	(6,869)	(6,950)	(7,033)	(79,144)
<b>Financing activities</b>													
Loan principal payments	(6,495)	(6,549)	(6,604)	(6,660)	(6,716)	(6,772)	(6,829)	(6,887)	(6,944)	(7,003)	(7,062)	(7,121)	(81,642)
Line of credit, net	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' distributions	-	-	-	-	-	-	-	-	-	-	-	-	-
	(6,495)	(6,549)	(6,604)	(6,660)	(6,716)	(6,772)	(6,829)	(6,887)	(6,944)	(7,003)	(7,062)	(7,121)	(81,642)
Net increase (decrease) in cash	(8,903)	(7,751)	(2,822)	994	918	841	609	193	902	821	3,047	2,746	(8,406)
Cash at beginning of period	40,236	31,333	23,583	20,761	21,755	22,673	23,513	24,123	24,315	25,217	26,038	29,085	40,236
Cash at end of period	\$ 31,333	\$ 23,583	\$ 20,761	\$ 21,755	\$ 22,673	\$ 23,513	\$ 24,123	\$ 24,315	\$ 25,217	\$ 26,038	\$ 29,085	\$ 31,831	\$ 31,831

Table 7.2.3 Monthly income statement and cash flows for the 3<sup>rd</sup> year in operation

	Mo 25	Mo 26	Mo 27	Mo 28	Mo 29	Mo 30	Mo 31	Mo 32	Mo 33	Mo 34	Mo 35	Mo 36	Total
<b>Revenue</b>													
Custom beef	46,049	46,049	46,049	46,049	46,049	46,049	46,049	46,049	46,049	46,049	46,049	46,049	552,585
Custom pork	23,749	23,749	23,749	23,749	23,749	23,749	23,749	23,749	23,749	23,749	23,749	23,749	284,990
Custom lamb	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	2,344	28,129
Custom cull cow	10,978	10,978	10,978	10,978	10,978	10,978	10,978	10,978	10,978	10,978	10,978	10,978	131,736
Plant owned processed beef	11,050	11,050	11,050	11,050	11,050	11,050	11,050	11,050	11,050	11,050	11,050	11,050	132,600
Plant owned processed pork	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	3,500	42,000
Beef hides	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330	1,330	15,960
<b>Total revenue</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>99,000</b>	<b>1,188,001</b>
<b>Cost of goods sold</b>													
Meat bought for processing													
Beef subprimals	2,849	2,849	2,849	2,849	2,849	2,849	2,849	2,849	2,849	2,849	2,849	2,849	34,192
Pork subprimals	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	1,468	17,620
Processing expense - Beef	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	4,329	51,948
Processing expense - Pork	850	850	850	850	850	850	850	850	850	850	850	850	10,200
<b>Total cost of goods sold</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>9,497</b>	<b>113,960</b>
<b>Gross Margin</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>89,503</b>	<b>1,074,041</b>
<b>Operating Expenses</b>													
Direct plant labor	22,464	22,464	22,464	22,464	22,464	22,464	22,464	22,464	22,464	22,464	22,464	22,464	269,568
Plant direct costs	18,338	18,338	18,338	18,338	18,338	18,338	18,338	18,338	18,338	18,338	18,338	18,338	220,050
G & A													
Property taxes	210	210	210	210	210	210	210	210	210	210	210	210	2,520
Office supplies	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Professional fees	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounting fees	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Meals and entertainment	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Marketing fixed costs	500	500	500	500	500	500	500	500	500	500	500	500	6,000
Brokerage @ 4.5%- x% of volume	-	-	-	-	-	-	-	-	-	-	-	-	-
Admin. Labor	10,068	10,068	10,068	10,068	10,068	10,068	10,068	10,068	10,068	10,068	10,068	10,068	120,822
Office/utilities/phone	500	500	500	500	500	500	500	500	500	500	500	500	6,000

Postage	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Travel expenses	200	200	200	200	200	200	200	200	200	200	200	200	2,400
Miscellaneous expense	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Total operating expenses	53,680	53,680	53,680	53,680	53,680	53,680	53,680	53,680	53,680	53,680	53,680	53,680	644,160
EBITDA	35,823	35,823	35,823	35,823	35,823	35,823	35,823	35,823	35,823	35,823	35,823	35,823	429,881
Interest expense	8,588	8,528	8,467	8,406	8,344	8,282	8,219	8,155	8,091	8,027	7,962	7,896	98,965
Depreciation expense	12,496	12,581	12,667	12,753	12,841	12,930	13,020	13,111	13,203	13,296	13,390	13,486	155,773
Net income (loss)	\$ 14,739	\$ 14,714	\$ 14,690	\$ 14,664	\$ 14,638	\$ 14,612	\$ 14,585	\$ 14,557	\$ 14,529	\$ 14,501	\$ 14,472	\$ 14,442	\$ 175,143
	<b>Mo 25</b>	<b>Mo 26</b>	<b>Mo 27</b>	<b>Mo 28</b>	<b>Mo 29</b>	<b>Mo 30</b>	<b>Mo 31</b>	<b>Mo 32</b>	<b>Mo 33</b>	<b>Mo 34</b>	<b>Mo 35</b>	<b>Mo 36</b>	<b>Total</b>
<b>Statement of Cash Flows</b>													
Net income (loss)	\$ 14,739	\$ 14,714	\$ 14,690	\$ 14,664	\$ 14,638	\$ 14,612	\$ 14,585	\$ 14,557	\$ 14,529	\$ 14,501	\$ 14,472	\$ 14,442	\$ 175,143
Depreciation	12,496	12,581	12,667	12,753	12,841	12,930	13,020	13,111	13,203	13,296	13,390	13,486	155,773
Changes in operating assets and liabilities:													
Accounts receivable	(17,234)	-	-	-	-	-	-	-	-	-	-	-	(17,234)
Inventory	-	-	-	-	-	-	-	-	-	-	-	-	-
Accounts payable	3,063	-	-	-	-	-	-	-	-	-	-	-	3,063
Net cash used in operating activities	13,063	27,295	27,356	27,418	27,479	27,542	27,605	27,668	27,732	27,797	27,862	27,927	316,744
<b>Investing activities</b>													
PPE purchases	(7,117)	(7,202)	(7,287)	(7,374)	(7,462)	(7,551)	(7,641)	(7,731)	(7,824)	(7,917)	(8,011)	(8,106)	(91,221)
<b>Financing activities</b>													
Loan principal payments	(7,181)	(7,241)	(7,302)	(7,363)	(7,425)	(7,488)	(7,551)	(7,614)	(7,678)	(7,742)	(7,808)	(7,873)	(90,266)
Line of credit, net	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' contributions	-	-	-	-	-	-	-	-	-	-	-	-	-
Members' distributions	-	-	-	-	-	-	-	-	-	-	-	-	-
Net increase (decrease) in cash	(7,181)	(7,241)	(7,302)	(7,363)	(7,425)	(7,488)	(7,551)	(7,614)	(7,678)	(7,742)	(7,808)	(7,873)	(90,266)
Cash at beginning of period	31,831	30,596	43,449	56,216	68,896	81,489	93,992	106,406	118,729	130,959	143,097	155,140	31,831
Cash at end of period	\$ 30,596	\$ 43,449	\$ 56,216	\$ 68,896	\$ 81,489	\$ 93,992	\$ 106,406	\$ 118,729	\$ 130,959	\$ 143,097	\$ 155,140	\$ 167,088	\$ 167,088

Table 7.2.4 Annual balance sheet

	Year 0	Year 1	Year 2	Year 3
<b>Assets</b>				
Current Assets				
Cash	\$ 370,000	\$ 40,236	\$ 31,831	\$ 167,088
Accounts receivable-trade	-	63,974	81,766	99,000
Inventories	2,268	3,052	3,759	3,759
	<u>372,268</u>	<u>107,263</u>	<u>117,355</u>	<u>269,847</u>
Property and equipment	2,386,550	2,455,216	2,534,361	2,625,582
Accumulated depreciation	-	(133,218)	(276,914)	(432,687)
	<u>2,386,550</u>	<u>2,321,998</u>	<u>2,257,447</u>	<u>2,192,895</u>
Total assets	<u>\$ 2,758,818</u>	<u>\$ 2,429,261</u>	<u>\$ 2,374,802</u>	<u>\$ 2,462,742</u>
<b>Liabilities and Members' Capital</b>				
Liabilities				
Accounts payable	-	12,274	16,488	19,551
Line of credit	-	-	-	-
Loan	1,193,275	1,119,434	1,037,792	947,526
	<u>1,193,275</u>	<u>1,131,708</u>	<u>1,054,280</u>	<u>967,077</u>
Members' Capital				
Members' contributions	1,859,454	1,859,454	1,859,454	1,859,454
Members' distributions	-	-	-	-
Retained earnings (deficit)	(293,911)	(561,901)	(538,932)	(363,789)
	<u>1,565,543</u>	<u>1,297,553</u>	<u>1,320,522</u>	<u>1,495,665</u>
Total liabilities and members' capital	<u>\$ 2,758,818</u>	<u>\$ 2,429,261</u>	<u>\$ 2,374,802</u>	<u>\$ 2,462,742</u>

Table 7.2.5 Annual financial summary

	Year 0	Year 1	Year 2	Year 3
<b>Revenue</b>				
Custom beef		204,917	442,068	552,585
Custom pork		117,163	223,242	284,990
Custom lamb		18,753	24,613	28,129
Custom cull cow		40,253	87,824	131,736
Processed beef		92,650	115,600	132,600
Processed pork		29,750	37,450	42,000
Beef hides		4,955	10,800	15,960
Total revenue	-	508,440	941,598	1,188,001
<b>Cost of goods sold</b>				
Meat for processing				
Beef subprimals		23,890	29,808	34,192
Pork subprimals		12,481	15,711	17,620
Processing expense - Beef		17,004	21,216	24,336
Processing Expense - Pork		7,225	9,095	10,200
Total freight				
Total cost of goods sold	-	60,600	75,831	86,348
Gross Margin	-	447,840	865,767	1,101,653
Expenses				
Direct Plant Labor		162,240	231,504	269,568
Plant direct costs		136,970	184,343	220,050
G & A				
Property taxes		2,520	2,520	2,520
Office supplies		1,200	1,200	1,200
Professional fees	120,800	-	-	-
Accounting fees	10,000	12,000	12,000	12,000
Meals and entertainment		1,200	1,200	1,200
Marketing costs	10,000	6,000	6,000	6,000
Brokerage @ 4.5%		-	-	-
Admin. Labor	9,583	115,000	117,875	120,822
Office/utilities/phone	3,000	6,000	6,000	6,000
Postage		1,200	1,200	1,200
Travel expenses	1,200	2,400	2,400	2,400
Miscellaneous expense	20,000	1,200	1,200	1,200
Total operating expenses	174,583	447,930	567,442	644,160
<b>EBITDA</b>	<b>(174,583)</b>	<b>(19,383)</b>	<b>274,254</b>	<b>429,881</b>
Interest expense	119,328	115,389	107,589	98,965
Depreciation expense	-	133,218	143,696	155,773
<b>Net income (loss)</b>	<b>\$ (293,911)</b>	<b>\$ (267,990)</b>	<b>\$ 22,969</b>	<b>\$ 175,143</b>
<b>Financing activities</b>				
Loan proceeds	1,193,275			
Loan principal payments	-	(73,841)	(81,642)	(90,266)

Table 7.2.6 Financial ratios

	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>
Profit margin on Sales	-52.71%	2.44%	14.74%
Return on Assets (ROA)	-10.02%	0.87%	6.74%
Return on Equity (ROE)	-18.11%	1.59%	12.36%

Table 7.2.7 Net margin (adjusted for processing costs) by livestock category (3<sup>rd</sup> year)

<b>Species</b>	<b>annual #s</b>	<b>Gross Margins (\$/hd)</b>	<b>Net Margins (\$/hd)</b>
Beef cattle	1,200	460	<b>181</b>
Hogs	1,800	158	<b>59</b>
Lambs	480	59	<b>22</b>
Cull cows	360	366	<b>144</b>
	lbs	(\$/lb)	(\$/lb)
Plant owned proc. beef	15,600	6.31	<b>2.98</b>
Plant owned proc. pork	12,000	2.03	<b>1.18</b>

### 7.3 Financial Summary

Due to the inefficiencies of starting up a new plant with labor in training and slower plant throughput, net income was negative (Table 7.2.1 and 7.2.5) in the first year of operation. However, the model shows the second and third years as profitable with the third year's earnings before interest, depreciation, taxes and amortization (EBITDA) and net income at \$430,000 and \$175,000, respectively (Table 7.2.3 and 7.2.5).

Due to short payment terms on most accounts receivables, the business does not need a line of credit to shore up the monthly cash position (Table 7.2.5).

The predicted return on sales, return on assets, and return on equity is excellent and representative of well-managed and successful food processing businesses at 15%, 7% and 12%, respectively in year 3 (Table 7.2.6).

Custom processing fees were set at a margin above the individual species' processing costs resulting in good margins from processing of each individual each species (Table 7.2.7). The plant's own processed beef also generates margins at \$3 per pound. The margins for processed pork are low compared to beef largely because the sales prices are low. These processed pork margins could be improved by raising prices of processed pork items.

Maintaining margins is critical in this business and can be assured by

- Satisfying customers
- Producing good quality products
- Monitoring yields
- Monitoring and managing expenses

## Section 8 Core Competencies and Risk Factors

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### 8.1 Core Competencies

The following core competencies are necessary for this meat processing company to be successful:

- The successful hiring, training and supervision of the Plant Manager and other plant employees.
- High quality workmanship with meat processing.
- Well-designed food safety programs and successful monitoring.
- Disciplined control of overhead costs.
- Good record-keeping, cost-of-production analysis, and sales analysis.
- High level service to customers.
- High level attention to food safety quality.
- Business flexibility to make changes to take advantage of opportunities or correct problems.

### 8.2 Risk Factors

Possible risk factors that could be a barrier to entry or could undermine positive earnings include the following:

- Incidents of positive *E. coli* 0157:H7, Listeria, or salmonella tests resulting in recalled products and loss of customer confidence.
- Inability to raise sufficient capital to construct the building and to finance operating expenses.
- Poor relationship with USDA FSIS resulting in excessive NR's and possible production delays.
- Loss of customers due to unhappy producer customers or retail or food service customers spreading negative comments.

## **Section 9            Literature Cited and Credits**

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### **Literature Cited**

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### **Credits**

Thanks are extended to Susan Brown of Curry County Economic and Community Development for administering grant funding necessary to fund this business plan. Appreciation is extended to Tracy Christian, CPA, for reviewing and assisting with the financial models and assumptions in this plan as well as Aaron Baustad, both associates with Food and Livestock Planning, Inc. for determining the size of processing rooms necessary for the project.

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