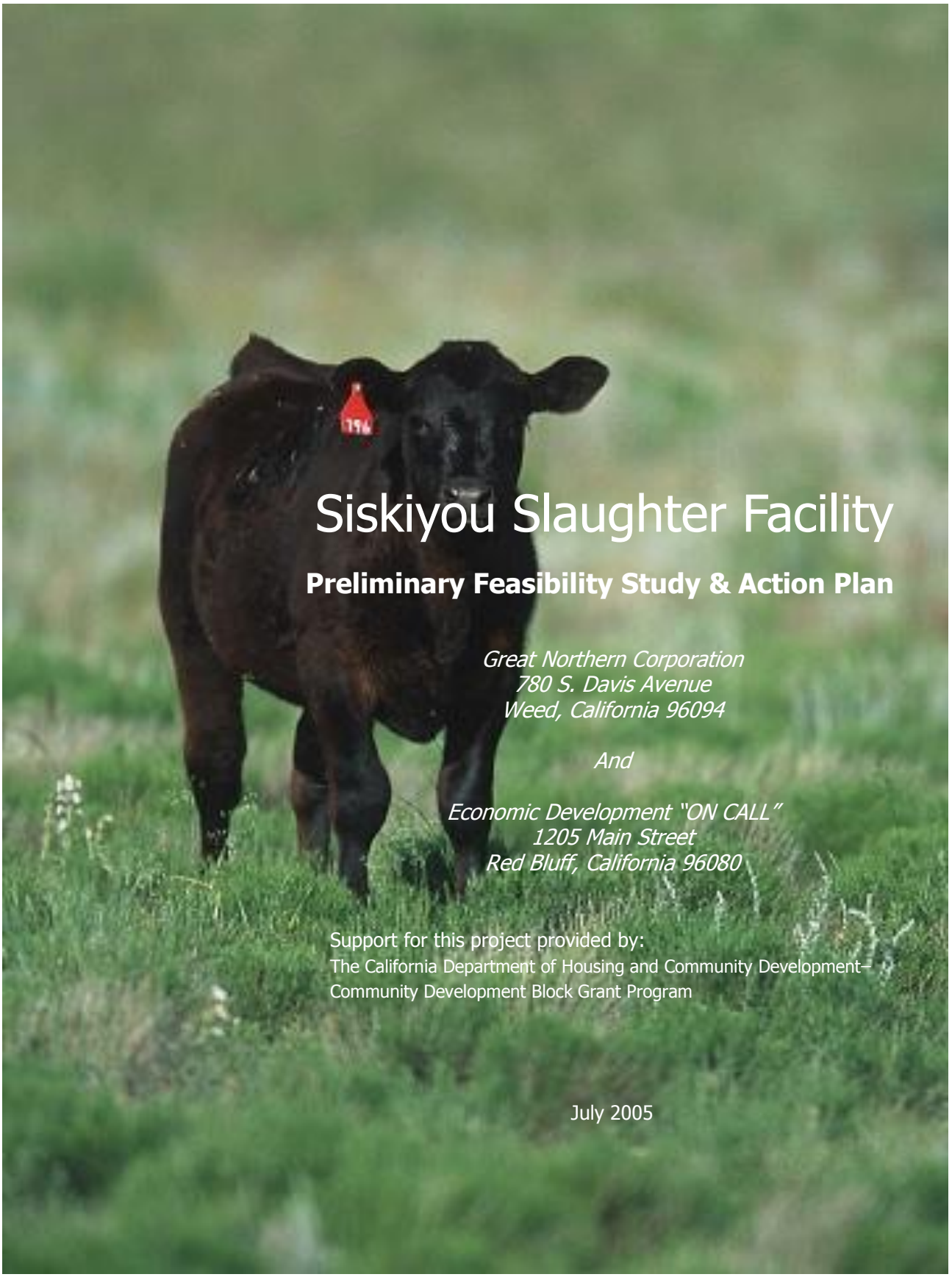

Siskiyou Slaughter Facility

Preliminary Feasibility Study & Action Plan

Great Northern Corporation
780 S. Davis Avenue
Weed, California 96094

And

Economic Development "ON CALL"
1205 Main Street
Red Bluff, California 96080

Support for this project provided by:
The California Department of Housing and Community Development–
Community Development Block Grant Program

July 2005

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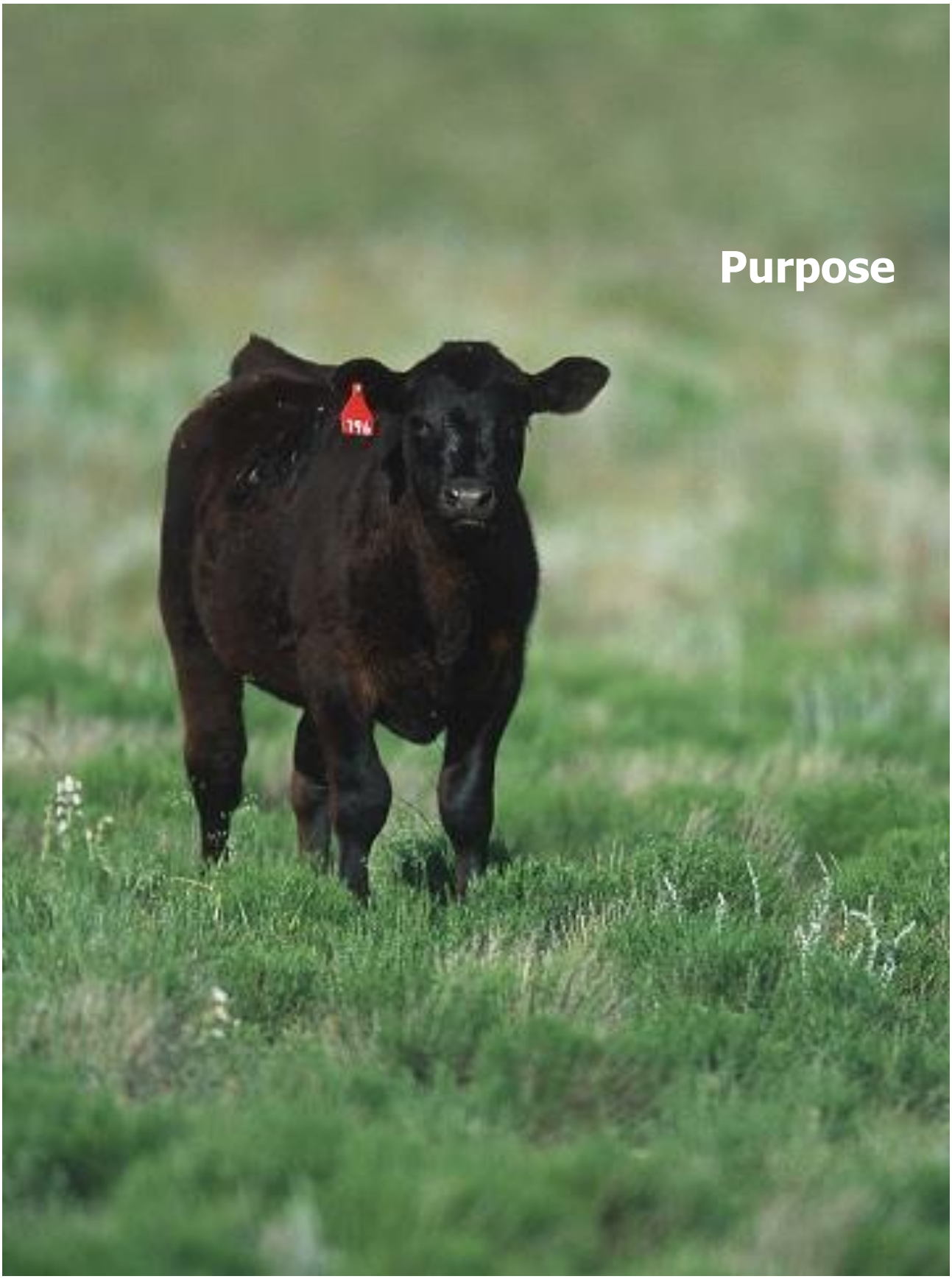

Purpose

This project is funded through a Planning and Technical Assistance (PT/A) grant from the California Department of Housing and Community Development (HCD), Community Development Block Grant (CDBG) program. In June 2003, the City of Etna and the Great Northern Corporation (a local community/economic development organization) applied for and received a grant to investigate the feasibility of Siskiyou Beef, a new food processing facility in Siskiyou County. The intent of the study is to investigate key development considerations for a locally owned and operated slaughter facility including:

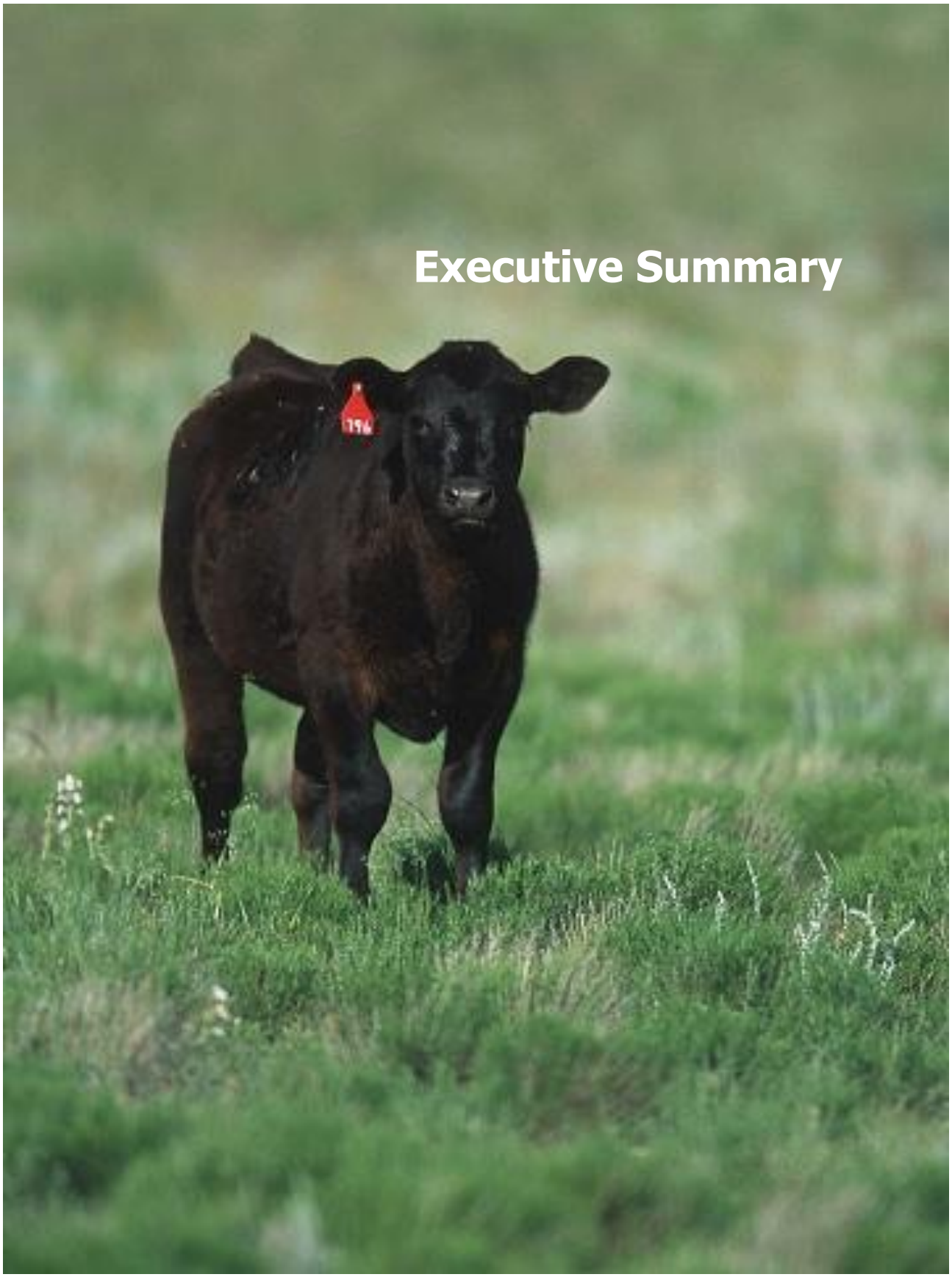
- Facility development and capitalization
- Environmental and permit issues
- Location and zoning
- Infrastructure needs
- Action plan to move the project forward

Many times public agencies are criticized for spending considerable time and resources to complete feasibility studies. For example, a number of people have probably heard the complaint that "this is just another study that will sit on the shelf." However, conducting a feasibility study is sound business practice. If one examines successful businesses, they will discover that they did not go into a new business venture without first thoroughly examining all of the issues and assessing the probability of business success. Here are common reasons to conduct this or any feasibility study:

- Give focus to the project and outline alternatives.
- Narrows business alternatives.
- Surfaces new opportunities through the investigative process.
- Identifies reasons not to proceed.
- Enhances the probability of success by addressing and mitigating factors early on in the project.
- Provides quality information for decision making.
- Helps to increase investment in the company.
- Provides documentation that the business venture was thoroughly investigated.
- Helps in securing funding from lending institutions and other monetary sources.

A feasibility study is a critical step in the business assessment process. When implemented properly, it may be the soundest developed investment for the value added to the meat industry in Siskiyou County. However, this is not a business plan. The separate roles of the feasibility study and the business plan are frequently misunderstood. The feasibility study provides an investigating function. It addresses the question of "Is this a viable business venture?" The business plan provides a planning function and outlines the actions needed to take the proposal from "idea" to "reality." This study helps to narrow the scope of the project and identify the best business scenario(s).

Executive Summary



Livestock production has a long and significant history in Siskiyou County. However, to remain competitive in today's global economy, local livestock producers are exploring new value added opportunities and niche markets that hold a promising future; such as natural, grass and organic products, and marketing through upscale restaurants or specialty stores. The key to entering these markets is to produce enough products of consistency and quality to meet demands. In June of 2003, the City of Etna and the Great Northern Corporation received a grant to investigate the feasibility of a new meat processing facility in Siskiyou County. The intent of the grant and subsequent study was to investigate the development and improvement of the food processing infrastructure to increase locally processed meat available to stores, restaurants, and individual consumers.

The processing of meat for resale is much different then slaughtering the occasional animal for personal consumption. Before a grower can legally offer domestic meat and meat products for sale, the animal must be slaughtered in a facility inspected by the U.S. Department of Agriculture. Food safety and sanitization are important in the design and construction of a USDA approved meat processing facility.

Research indicates that processing facilities operate on an economy of scale basis. National statistics demonstrate that "small and very small slaughterhouses" (under 20,000 square feet) with federal certification are on the decline[1]. Since 1998, when approximately 12,200 small and very small plants were operating under the meat and poultry inspection of the USDA, 1,500 (13%) have been lost. When considering building or operating such a facility, key considerations include access to raw materials, low cost electric power, and plenty of clean water.

When considering the objectives of this study and Community Development Block Grant funding in general, the construction of a "state of the art" multi species killing plant would create the highest opportunity for investment and job creation. From an economic development standpoint, a facility of small/moderate size (10,000 -20,000 square feet) could generate anywhere from thirty to fifty local jobs and require an investment of $3,000,000 – $5,000,000 depending on land costs and processing options. Unfortunately, the risk, high cost of capitalization, and skepticism from local growers ruled this scenario out early in the process.

[1] Steve Krut, Executive Director of the American Association of Meat Processors (AAMP)

A second option to increasing local meat processing capacity is the purchase of a prefabricated slaughterhouse designed to process several classes of livestock and game. One such facility is in operation on a reservation in South Dakota. These mobile slaughterhouses require special needs, including hot and cold water, drains, carcass hanging rails, refrigeration units, and hoists. They are also designed to meet USDA regulations and feature a machine room, air-conditioning, a potable water tank, a bleeding chamber, a telescopic beam and liquid waste storage tanks. The average daily capacity is about 45 head of beef, and the facility employs approximately ten indivduals.

From a supply side, interviews with producers revealed that most commercial growers are happy with their present production arrangement with Harris Ranch. Most producers are not willing to risk interruption of this arrangement. Equally important is the consideration of seed capital. A prefabricated facility represents a great deal of investment capital ($1.5 million) to be raised for the initial purchase and for operating costs. Again, the feasibility and risk for this type of facility, even with grant funds, are questionable.

A third option would be a small Mobile Slaughter Unit (MSU). Smaller than a prefabricated facility, MSUs were developed to process chickens, turkeys, sheep, deer, and buffalo in third world countries. The facilities are gaining popularity around the globe. However, only a few are currently operating in the U.S. In August of 2004, California's first and only MSU was christened in Parkfield, California. The fabrication facility is home base for the MSU which travels to ranches where the kill occurs. Similar to the prefabricated facility, it is self-contained and can operate at a remote site for two days. After processing, the dressed carcasses are then transported to a fabrication facility for dry-aging, fabrication and packaging. The MSU became the choice among smaller growers who felt that further consideration of a mobile unit held the best chance to bring the concept to fruition.

Unfortunately, many growers are operating under the assumption that a MSU requires less "Red Tape" in terms of permit and regulatory requirements and "on farm composting" is/would be allowed in Siskiyou County. However, unlike the MSU operating in the San Juan Islands of Washington, California does not allow for composting of animal products. More important, these state regulations are not expected to change in the foreseeable future. Consequently, *the Mobile Slaughter Unit is not a stand-alone*

facility. It must be supported by a fixed site (USDA inspected fabrication and packaging facility) complete with waste water disposal designed to meet California Water Quality Standards.

Development capital will be required to fund the construction or purchase of an MSU and fixed facility (further processing and storage areas). The operating entity will also be required to provide a percentage of startup funds in the form of working capital and or equipment. Research indicates that such a facility will require approximatley $600,000 for purchasing the MSU and renovating an existing building to serve as the fabrication facility.

A management team for the development of this project could include the talent from local organizations like the local Resource Conservation and Development District, Great Northern Corporation, Siskiyou EDC, the Farm Bureau, Cattlemen's Association, and other business and farm agencies. These particular agencies provide a valuable resource when it comes to management experience, identifying resources, and lobbying for support. A "champion" is needed to take the project to the next level. It will be their role to solicit support from growers to provide equity investment for grant match requirements, working capital, and fund marketing/advertising activities. Considering this alternative, growers, community and economic development representatives, and leaders of the agricultural/livestock industry sectors should explore this concept in further detail by accomplishing the following tasks:

Further Business Planning

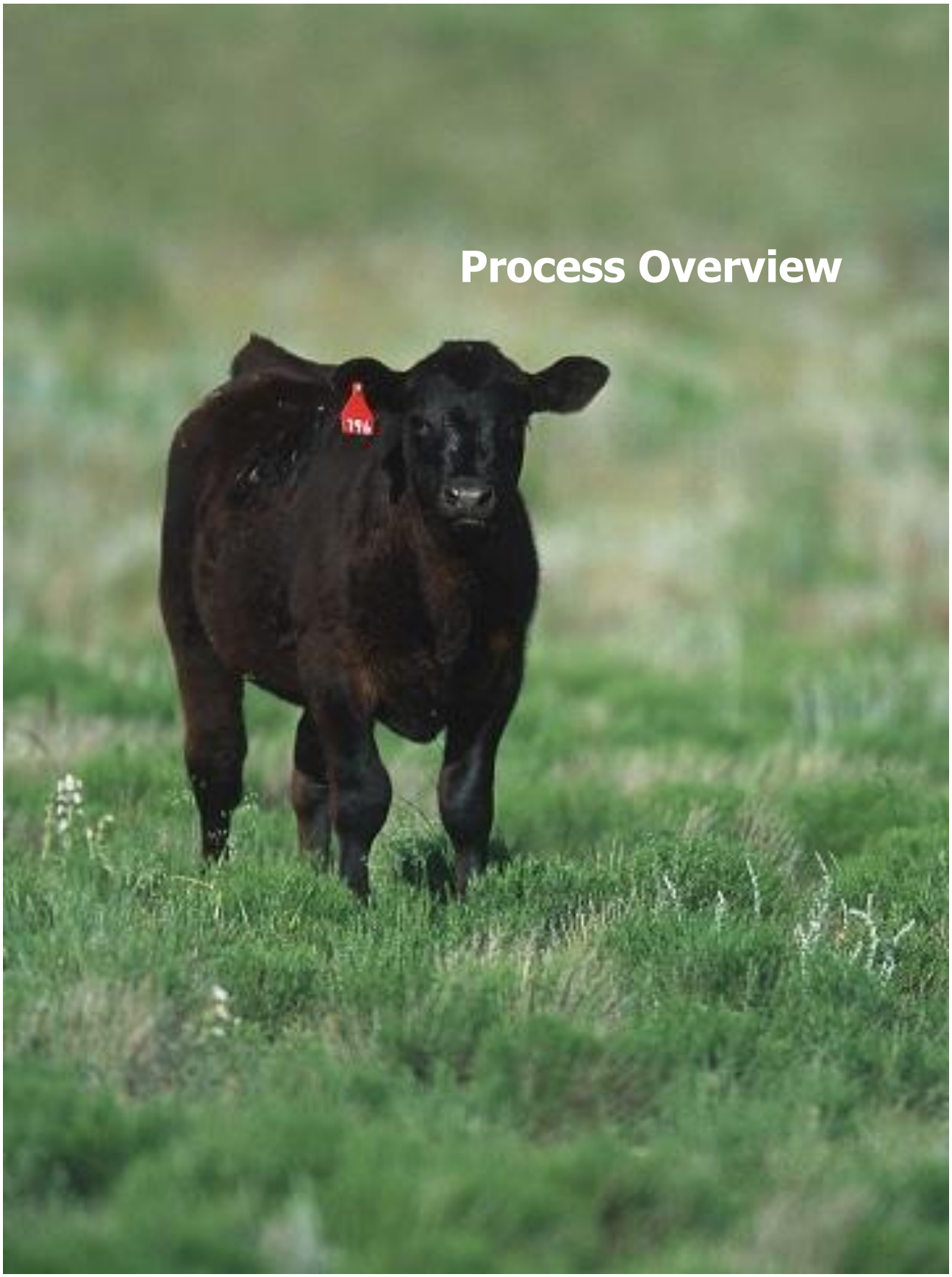
- Draw up an organizational chart of the enterprise.
- Prepare the operational plan (business plan) for the first year of activities.
- Negotiate contracts for the supply of necessary products and services (inputs) and, as required, sales or marketing contracts.
- Devise and implement an ad hoc accounting system.
- Define the duties and responsibilities of each position.
- Refine financial figures and budgets.

Capital Formation

- Determine the value of the membership share to become a member.

- Evaluate the value of the share capital on start-up and during the first three years of operation (in terms of the expected growth in the number of members).
- Prepare the preferred share by-laws (if applicable).
- Prepare the loan by-laws (if applicable).
- Draw up the overall financing plan for the first three years of operation.
- Draw up the business plan.
- Negotiate the capital contribution of external financial partners (if necessary) venture capital corporations, private funds, or public investment programs.
- Apply for a government start-up grant (if they are available and if required).
- Negotiate medium term credit or bank loans and a line of credit.

Process Overview



The processing of meat for resale differs greatly than slaughtering the occasional animal for personal consumption. Before a grower can legally offer domestic meat and meat products for sale, the animal must be slaughtered in a facility inspected by the United States Department of Agriculture (USDA). In addition, products processed from USDA-inspected carcasses must be handled in a facility inspected by county, state, or USDA inspectors *(see Exhibit A.1 USDA Reg. - 416)*. Farm slaughter occurs when the producer or a mobile slaughterer harvests the animals where they are raised and the meat is eaten by the producer, members of the producer's household and/or the producer's employees and non-paying guests *and* does not require state or federal inspection. A producer cannot legally:

- Sell a live animal and allow the new owner to slaughter it on the ranch.
- Slaughter an animal himself and then sell the meat.
- Sell a live animal and then slaughter it on the ranch for the new owner.

A producer can however:

- Sell a live animal and have it leave the ranch live. After it leaves, the rancher is not liable for the slaughter method/technique.
- Sell live animals and build a California Department of Food and Agriculture (CDFA)-licensed custom livestock slaughterhouse, or direct the buyer to a CDFA-licensed custom livestock slaughterhouse; or USDA inspected slaughterhouse that can do the harvesting for the purchaser.

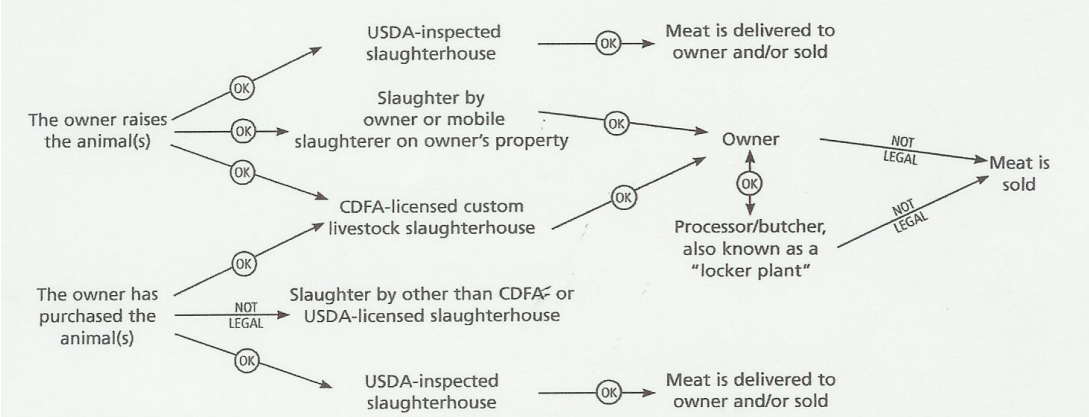


Figure 1: Schematic diagram for livestock slaughter transactions in California. Federal inspection is provided by the USDA Food Safety and Inspection Service (indicated here as USDA), and state inspection is provided by the California Department of Food and Agriculture (CDFA), Meat and Poultry Inspection Branch.

Source: University of California Division of Agriculture & Natural Resources Pub. 8146

Industry Overview

Industry Information

The recruitment or development of any company requires a closer look at the industry sector to which it belongs. This "*Macro*" investigative task enables one to better understand how the industry is performing as a whole. For example, important trends and events in the industry are key performance indicators that have impacted areas of success or failure within the industry. The following information is provided as background to better understand the size and composition of the meat industry nationally.

- *Estimated number of U.S. establishments: 2,055*
- *Number of people employed in this industry: 141,819*
- *Total annual sales in this industry: $6,368,190*
- *Average number of employees per establishment: 71*
- *Average sales per establishment: $38 million*
- A 20,000-30,000 sq. ft. facility is considered to be a small slaughter facility [2]

A great deal of design consideration is required when building a facility. These considerations are applicable to any type of facility whether it is permanently constructed, a prefabricated facility or mobile unit. In general, a facility will require:

PLANT DRAINAGE

- All rooms except freezer and dry storage rooms must have floor drains.

USDA Facilities (CA)

Clausen Meat Packing, Inc.
19455 West Clausen Road
Turlock, CA 95380
(209) 667-8699

Johansen's Meats
Road P, Hwy 232
Orland, CA 95963
(530) 865-2103

Los Banos Abattior
PO BOX 949
Los Banos, CA 93635
(209) 826-2212

Meridian Meats
16761 Kilgore Road
Meridian, CA 95957
(530) 696-0130

Rancho Veal Corporation
1522 Petaluma Blvd. North
Petaluma, CA 94952
(707) 762-6651

Redwood Meats
2440 Myrtle Ave.
Eureka, CA 95501
(707) 442-3797

Shamrock Meats
3461 East Vernon Way
Vernon, CA 90058
(323) 587-3241

Stangno's Meat Co.
725 Zeff Road
Modesto, CA 95350
(209) 578-1748

Yosemite Meat Co.
601 Zeff Road
Modesto, CA 95350
(209) 524-5177

Panizzera Meat Co.
3903 Main & Graton Road
Occidental, CA 95465
(707) 874-1854

[2] Small refers to plants with fewer then 500 employees, very small refers to plants with fewer then 500 employees and less then $2.5 million in annual sales. (*See Exhibit A.2 Farm Magazine Winter 2004 – Article Loss of Small Butchers).*

- Drainage lines must have an inside diameter of 4 inches.
- Each drain must have a P, U, or S shaped deep steel trap.
- Drainage lines must be properly vented to the outside.
- Drainage lines must be equipped with effective rodent screens.

FLOORS

- Must be constructed of durable water-resistant materials.
- Must not have low spots that collect liquid.
- Must be free of cracks and holes.

INTERIOR WALLS

- Must be constructed of impervious material.
- Must be free of cracks or holes.
- Must be bumpered or curbed where necessary to be protected from damage by carcasses, tubs, carts, etc.

CEILINGS

- Should be 10 feet or higher in workrooms.
- Must be constructed of impervious material.
- Must be smooth and flat.
- Must be free of cracks or holes.

DOORWAYS AND DOORS

- Doorways where product moves must be 5 feet wide.
- Doorways where rails pass through must be at least 4 - 5 feet wide.
- Doorjambs where rails pass through must be of smooth and of impervious material.

INTERIOR WOODWORK

- Wood surfaces should be painted with a good grade non-toxic oil or plastic base paint, treated with hot linseed oil or with a clear wood sealer.

REFRIGERATION

- Wall coils or hanging refrigeration must have a drip gutter or of impervious material integral with the floor and connected with the drainage system.
- Floor-type refrigeration must set within a curbed and separately drained area or placed adjacent to floor drains.
- If the facility handles or prepares both cooked and fresh products, separate coolers are needed to separate and prevent cross contamination.

PROCESSING AREA

- Should be kept at a temperature of less than 50°F, or establishment must have a mid-shift cleanup.
- Must have a sterilizer.
- Must have other than a hand-operated washbasin, liquid soap dispenser, disposable towel dispenser, and metal receptacle for used towels.
- Must have an equipment wash sink to wash utensils and small equipment (this can be located somewhere other than the processing area).

- Cutting and boning boards must be of approved material and easily removable for cleaning.
- All shelves, storage racks, etc., should be of metal or of other approved material and at least 12 inches off the floor.
- Since a thorough cleanup is required when going from "pork" to "beef" when processing, some plants will want to have a cutting and boning table and a saw for both pork and beef, thus eliminating this necessity.

SLAUGHTER AREA

- Must have a sterilizer.
- Must have a viscera truck or pan.
- Must have other than hand-operated washbasin, liquid soap dispenser, disposable towel dispenser, and metal receptacle for used towels.
- All shelves, storage racks, etc., should be of metal and at least 12 inches off the floor.

INEDIBLE PRODUCT AREA

- Should be suitably located at rear of plant to avoid odors.
- If connected to kill floor, must have a self-closing door.
- If inedible material is not disposed of promptly, it must be refrigerated.

WELFARE AREA

- The establishment must provide an adequate area or room, separate from edible product departments for employee clothes storage and lunch breaks.

SHIPPING AND RECEIVING DOCKS

- Adequate dust proof access ways should be available connecting the shipping and receiving area to public streets or highways.

Meat processing facilities operate on an economy of scale basis. National statistics demonstrate that "small and very small slaughterhouses" (under 20,000 square feet in size) with federal certification are on the decline[3]. Since 1998, when approximately 12,200 small and very small plants were operating under the meat and poultry inspection of the USDA, 1,500 or 13% have been lost.

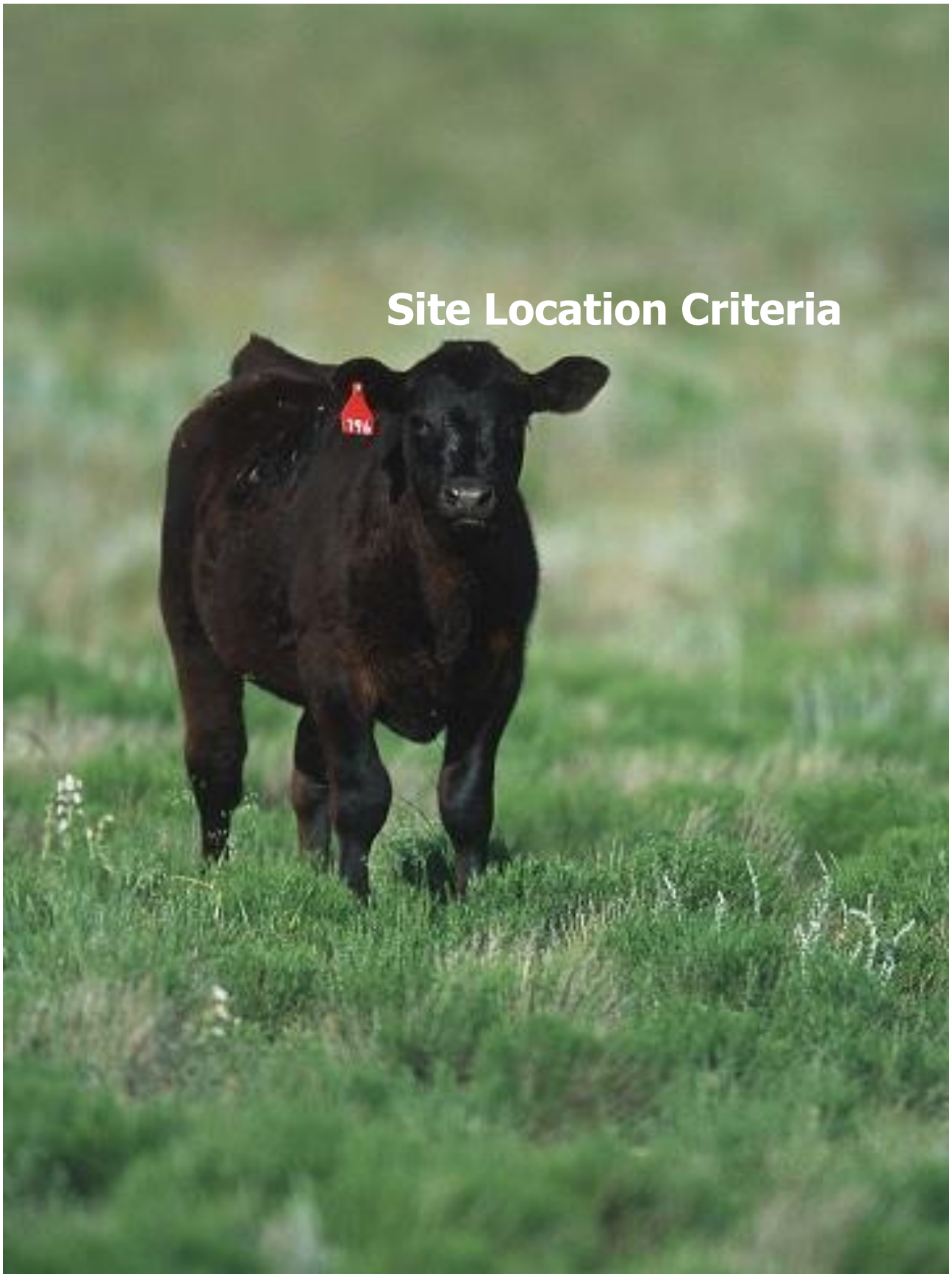
[3] Steve Krut, executive director of the American Association of Meat Processors (AAMP) a 30-year veteran of the organization.

Table 1 - National Distribution of Meat Processing Facilities

Market Analysis by State (Meat Processing Facilities)						
State	**No Bus.**	**% Total**	**Total Emps.**	**Total Sales**	**Avg. Emps.**	**Avg. Sales**
Alabama	42	2	1,466	14	36	0.4
Alaska	7	0.3	284	4.1	41	0.8
Arizona	15	0.7	1,311	351.6	87	32
Arkansas	35	1.7	967	25	29	0.9
California	**101**	**4.9**	**5,829**	**1,727.1**	**59**	**21.9**
Colorado	71	3.5	4,724	12,645.8	67	225.8
Connecticut	8	0.4	87	4.7	11	0.7
Delaware	1	0	15	N/A	15	N/A
Florida	42	2	1,483	213.6	39	6.1
Georgia	68	3.3	1,736	248.7	27	4.4
Hawaii	3	0.1	25	2.9	13	1.5
Idaho	37	1.8	1,418	160.8	39	5
Illinois	98	4.8	6,800	789.3	71	10.5
Indiana	41	2	2,482	512.5	65	17.1
Iowa	102	5	11,035	357	115	6.6
Kansas	65	3.2	4,867	2,133.3	80	48.5
Kentucky	32	1.6	2,359	178.9	79	6.2
Louisiana	27	1.3	247	31.8	9	1.3
Maine	7	0.3	12	0.5	2	0.1
Maryland	14	0.7	129	21.6	9	1.8
Massachusetts	12	0.6	680	216.8	57	24.1
Michigan	64	3.1	1,699	1,000.7	27	17
Minnesota	74	3.6	6,586	5,031.4	90	85.3
Mississippi	29	1.4	2,632	874	91	31.2
Missouri	88	4.3	3,405	45.3	39	0.6
Montana	39	1.9	185	12.8	5	0.3
Nebraska	80	3.9	14,960	2,391.5	199	47.8
Nevada	3	0.1	5	0.2	2	0.1
New Hampshire	3	0.1	21	3.4	7	1.7
New Jersey	21	1	665	382.9	32	20.2
New Mexico	11	0.5	79	6.1	8	0.6
New York	61	3	699	399	12	7
North Carolina	51	2.5	7,685	111.4	154	2.9
North Dakota	17	0.8	167	40.9	10	2.6
Ohio	73	3.6	3,244	2,168.6	44	35
Oklahoma	54	2.6	981	175.4	19	3.6
Oregon	**24**	**1.2**	**759**	**183.6**	**32**	**8**
Pennsylvania	92	4.5	10,393	2,046.8	115	26.2
Rhode Island	1	0	3	1.3	3	1.3
South Carolina	33	1.6	1,213	292.2	37	9.7
South Dakota	26	1.3	11,564	12,493.6	445	624.7
Tennessee	36	1.8	739	110	22	3.4
Texas	145	7.1	11,394	1,202	81	9.8
Utah	25	1.2	287	10.6	12	0.5
Vermont	3	0.1	37	3.2	12	1.1
Virginia	35	1.7	7,879	10,184.7	225	351.2
Washington	34	1.7	1,168	662.3	37	23.7
West Virginia	9	0.4	76	10.2	8	1.1
Wisconsin	61	3	4,855	3,987.5	84	75.2
Wyoming	27	1.3	92	3.7	3	0.1
Puerto Rico	8	0.4	391	206.4	49	25.8
Total/Avg	**2,055**	**100**	**141,819**	**63,681.898**	**71**	**38**

Note: If multiple branch offices exist, each branch office is considered an independent establishment. Sales figures are in millions.

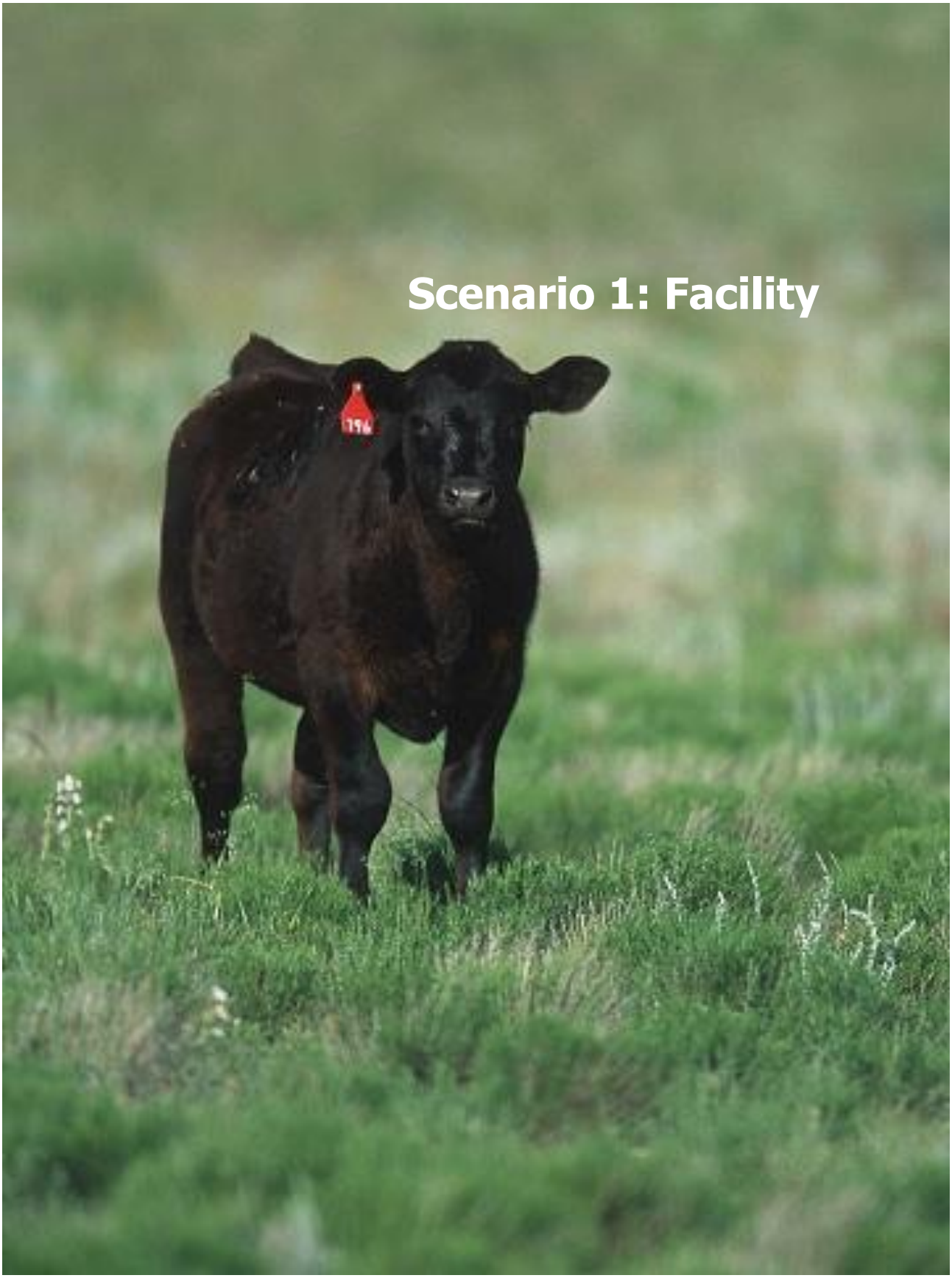
Source: Economic Development "ON CALL" Dun and Bradstreet


Site Location Criteria

Companies that choose to locate facilities look for communities that match strict site selection criteria. The following is a list of community/site attributes common to most food processing facilities:

Table 2 - Site Location Criteria

LOCATIONAL CRITERIA – Food Processing
1. Favorable access to production and supervisory talent from the local labor market. 2. A labor force with good basic and technical skills. 3. Wages that are below the national industry average. 4. Overall low or moderate operating costs, including real estate, personal property, inventory, and sales. 5. Payroll taxes; property costs; and construction costs. 6. Strong vocational-technical training programs. 7. Locations, and for air cargo shipments. 8. Excellent, low-cost, truckload, and less-than-truckload motor carrier service, water bourn and rail freight. 9. Service. 10. Strong access to raw materials and consumers. 11. Positive labor/management relations. 12. Good support services and suppliers within a day's drive or less. 13. Favorable labor legislation, such as the ability to hire workers during a strike and a favorable environment to contest Workers' Compensation and unemployment claims. 14. Reliable and low cost electric power. 15. Available sites with full utility service, proximity to the interstate system, and zoned for heavy and light manufacturing. 16. Fair and rapid environmental permitting and construction approvals. 17. Excellent sewer treatment capacities for treating waste by-products. 18. Abundant clean water. *Source: The WADLEY DONOVAN GROUP A Division of Grubb & Ellis, NOVEMBER 2002*

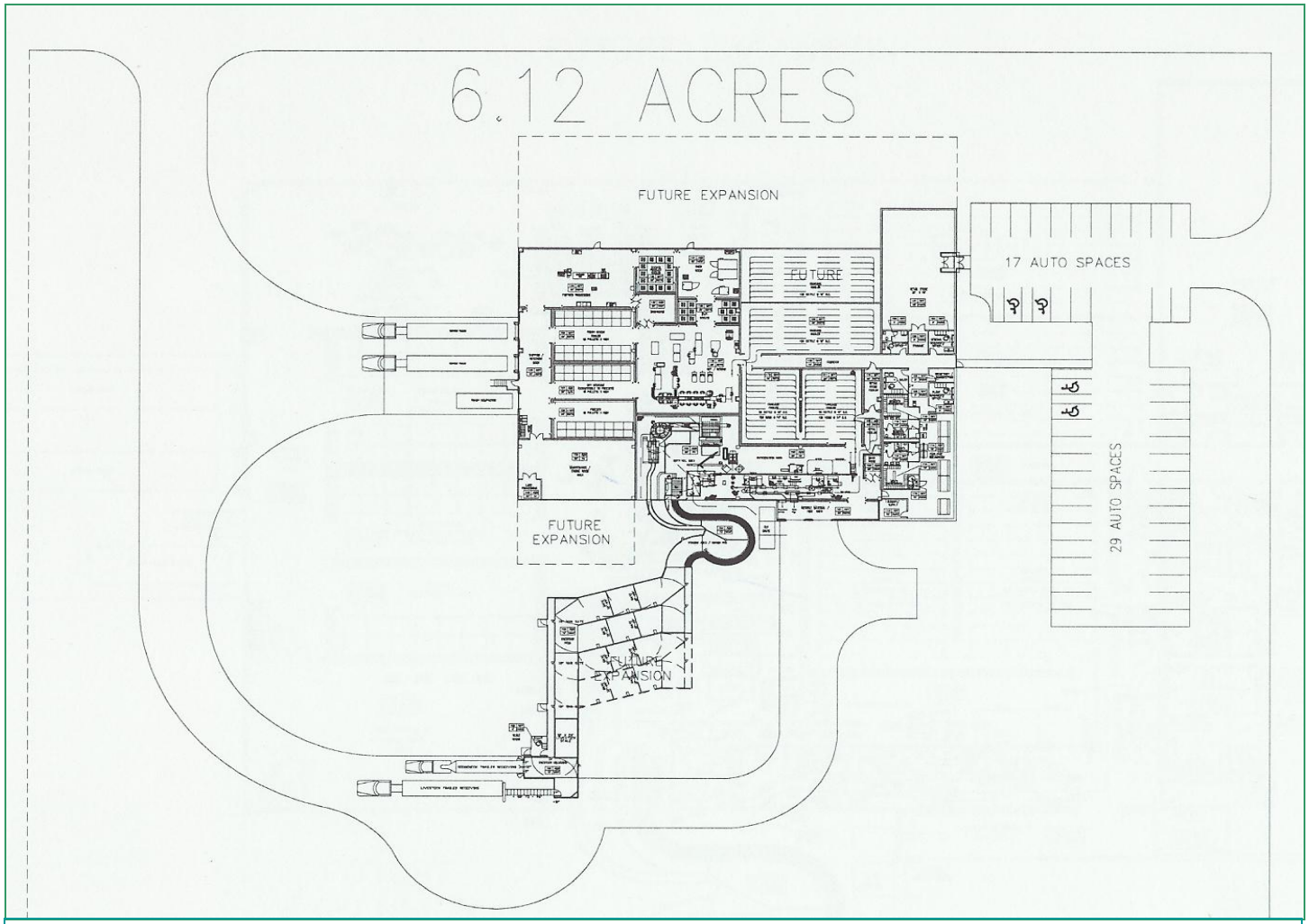


Scenario 1: Facility

When considering the objectives of this study and Community Development Block Grant funding in general, the construction of a "state of the art" multi species killing plant would create the highest opportunity for investment and job creation. From an economic development standpoint, a facility of small/moderate size could potentially generate thirty to fifty local jobs.

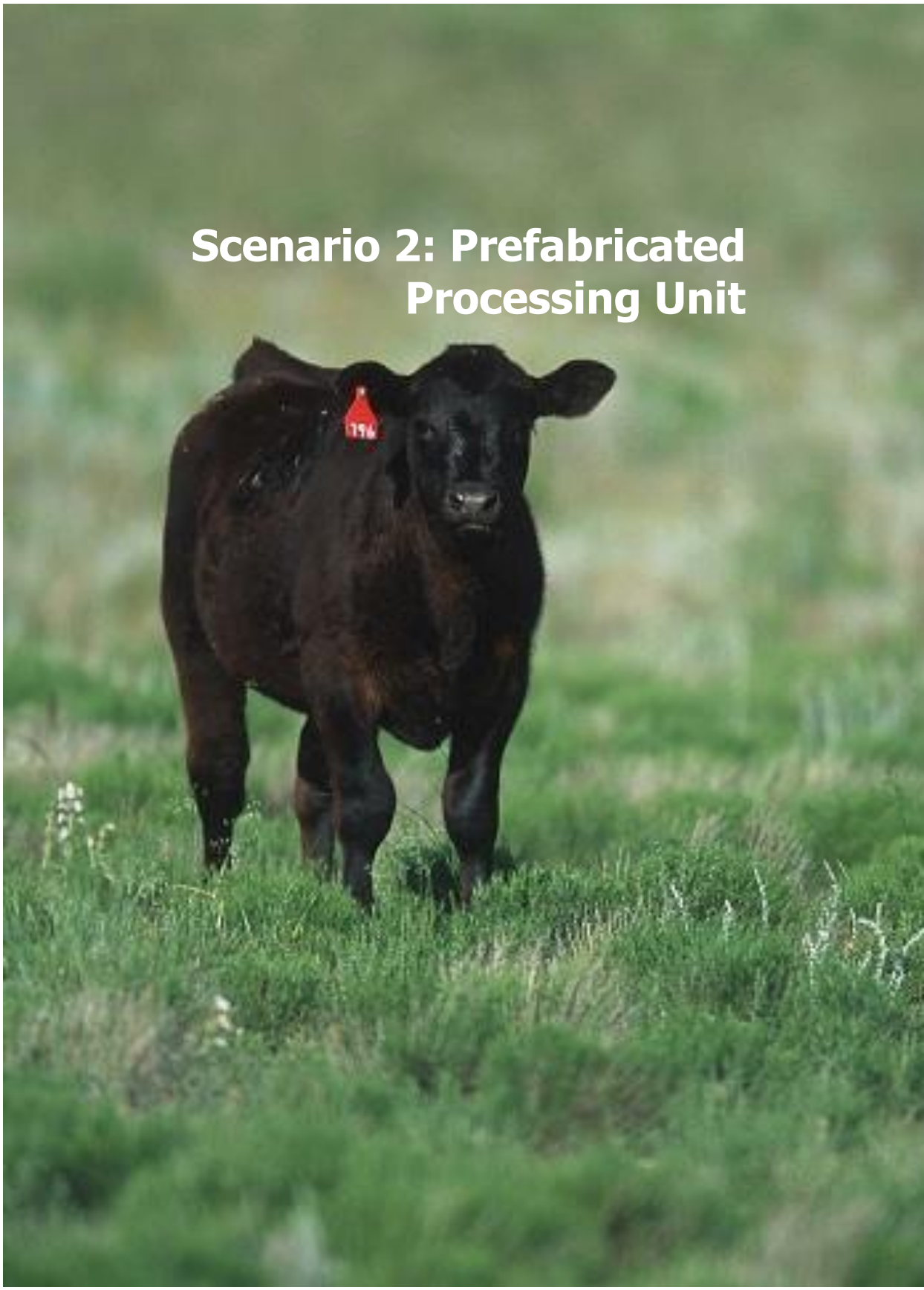
Our model facility of approximately 10,000-15,000 square feet located on about 10 acres could accommodate a kill of 100 cattle per day. This type of facility would require an approximate investment of $3,000,000 – $5,000,000 depending on land costs, processing options, and local and state regulatory requirements. Unfortunately, the risk, high cost of capitalization, and skepticism from local growers ruled this scenario out early in the process.

Siskiyou Success Story
Prather Ranch thrives on niche markets. The ranch provides pharmaceutical companies with bovine materials such as hides used for collagen, bovine bones and tendons used for human replacement parts, and pituitary glands used as an ingredient for an artificial human skin. With its "closed herd" status and own on-site USDA federally inspected harvest facility, the ranch is in an unparalleled position to produce great tasting beef with high consumer satisfaction. Prather Ranch harvests 1,000 animals a year for its premium quality, dry-aged certified organic and natural beef sales.
(see www.pratherranch.com)



Facility Layout compliments of the Facility Group

Scenario 2: Prefabricated Processing Unit



A second option to increasing local meat processing capacity is the purchase of a prefabricated slaughterhouse designed to process several classes of livestock and game. One such facility is in operation on a reservation in South Dakota. Manufactured by All Terrain Logistics of England, the SANMO multi-species mobile slaughterhouse has a capacity to process forty large cattle or buffalo per 8-hour shift *(see Exhibit A.3 SANMO Drawing 40:3).*

The plans for the SANMO multi-species mobile slaughterhouse have been approved by the United States Department of Agriculture (USDA) in Washington and Agriculture and Agrifood Canada in Ottawa. The slaughterhouse is built on a 2 or 3 axle semi-trailer, complete with adjustable air suspension, and consists of the following:

- A machine room including: a 40Kw electric power generator, heat exchangers, air-conditioning plant, a 4,000 liter potable water tank, a water heater, a water pump, and a hot water pressure washer.
- A hydraulically extended bleeding chamber to the rear of the slaughterhouse.
- A telescopic beam (large animals) which extends outside the rear of the bleeding chamber and a hydraulic lifting arm (small animals) for transferring the stunned carcasses into the slaughterhouse.

- A hydraulically lifting roof over the entire slaughtering area.
- A hydraulically extending personnel and veterinary officer's facility to the side of the slaughterhouse.
- A variable speed slaughter bench.
- A hydraulically extending fully insulated refrigerated section to the side of the slaughterhouse (opposite the personnel area).
- Optional liquid waste storage tanks fitted under the floor of the slaughterhouse.

PREFAB SLAUGHTER UNIT OPERATING PROFILE

Average Daily Capacity (head/day):	45 Beef
Size Specifications:	(see Exhibit A.3)
Staffing (Full Time Equivalent):	10
Capitalization Costs (SAMO Prefab Unit[4]):	$1,574,542

[4] Leading the Lamb to Slaughter Feasibility of a slaughter facility in the Sacramento Valley, 2002

Scenario 3: Mobile Processing Unit

The processing system evaluated in Scenario 3, examines the use of a small Mobile Slaughter Unit. Originally, these types of facilities were developed to process chickens, turkeys, sheep, deer, and buffalo in third world countries. While these facilities are gaining popularity around the globe, only a few are currently operating in the U.S. According to our research, there are MSUs operating in the San Juan Islands, Washington, South Dakota and in Texas. In August of 2004, California's first and only MSU was christened in Parkfield, California.

A Mobile Slaughter Unit is not a stand-alone facility. It must be supported by a fixed site (USDA inspected fabrication and packaging facility). The fabrication facility is considered the home base for the MSU which travels to ranches in a service region as large as 200 miles in diameter where the kill occurs. The MSU is self-contained and can operate at a remote site for two days. After processing, the dressed carcasses are then transported to a fabrication facility for dry-aging, fabrication and packaging.

MSU Basis Specifications:

1. Power train (truck) to haul the whole unit to ranches.
2. Mechanical/storage unit, containing potable water tank, water heater, generator, and containers for transporting hides back to fabrication facility.
3. Refrigerated unit with hanging rails and a connection for transfer of carcass on rails from processing unit; the unit will be large enough to hang approximately 10 large beef carcasses (or the equivalent in some combination of beef, lambs, and hogs).
4. Carcass processing unit designed, constructed, and equipped to meet requirements for a USDA meat slaughtering/processing facility to ensure a safe, sanitary product, requires:
    a) impervious materials for easy washing
    b) adequate lighting
    c) sink hot and cold water
    d) slanted floors
    e) waste water drains
    f) carcass hanging rail
    g) hoist for raising/lowering carcasses
    h) trays
    i) space to walk around carcass for inspection and note taking

The MSU (tractor-trailer combination) travels to individual farms and ranches. A butcher/driver, accompanied by a USDA inspector, operates the unit. USDA inspector conducts ante-mortem inspection of animals. The butcher slaughters and bleeds one animal at a time in the field. The carcass is brought into the processing section of the mobile unit, where skinning, evisceration, post mortem inspection, and washing occur. Carcasses are moved to the refrigerated section of the unit, where they are hung on rails until the mobile unit returns to the USDA-inspected fabrication facility. Offal remains are left on the farm and composted for use as a soil amendment[5]. Hides are transported to the facility and held for sale to a hide company.

The mobile slaughter unit returns to the fabrication facility at the end of the day where carcasses are transferred to a refrigerated cooler for aging and the unit is cleaned. Carcasses are dry aged in a cooler for a suitable period (determined by the producer and/or market). Carcasses may be graded, depending on marketing strategies. Carcasses are cut into retail portions and wrapped into primal cuts from which similar retail cuts can be taken (the latter are intended for wholesale sales to markets with their own meat cutters). Wrapped portions are stored for sale as fresh or frozen products (the length and type of storage and the final marketing of products may vary). The fabrication facility would include an extendable rail system for unloading with the following components:

1. Carcass intake and aging, consisting of carcasses from the mobile unit, rail scale.
2. Small scale USDA Fabrication Facility and refrigerated cooler for aging beef quarters.
3. Meat cutting and wrapping areas, containing hanging rails, cutting equipment, tables, trays and dollies, other meat processing equipment as required such as a grinder, scales, wrapping equipment, sink, water heater, and similar equipment.
4. Freezer storage for wrapped portions or pieces.
5. Dry storage, for materials, supplies, and spares.
6. Loading/unloading dock, for receiving and sending shipments and washing down the mobile unit.
7. Administration and staff support facilities, including office and bathroom.

[5] Allowed in the San Juan Islands, **not in California**.

MOBILE SLAUGHTER UNIT OPERATING PROFILE	
Average Daily Capacity (head/day):	10 beef or 20 lambs
Fixed Facility Size:	2500 sq.ft
Hanging Cooler:	450 sq.ft
Freezer:	350 sq.ft
Staffing (Full Time Equivalent):	3-5
Capitalization Costs (MSU & Fixed Facility[6]):	$350,000[7]

[6] Cost estimates represent renovation & equipment costs of an existing building.
[7] Source Assessments of Needs and Values-Mobile Slaughter Unit for Wyoming, 2004 (MSU 150,000, renovation of existing building and equipment $204,000).

Grower Recommended Choice (Scenario 3)

Scenario 3 is the choice among growers. In a meeting held in Etna, California, several growers felt that further consideration of a Mobile Processing Unit allowed a prime opportunity to bring the concept to fruition. Unfortunately, these same growers were operating under the assumption that a MSU required less "Red Tape" in terms of permits and regulatory requirements; and "on farm composting" is/would be allowed in Siskiyou County. Growers were quite vocal that a permanent facility was not an option and that this concept had already been investigated and ruled out due to:

- The amount of funding necessary to capitalize the facility.
- Inability to process permits and regulatory requirements.
- Commitment of local livestock necessary to keep a sustained kill.
- Amount of financial risk associated with a fixed facility.

From a supply issue, the livestock to be processed would need to come from an area much larger than Siskiyou County. Unlike Brawley Beef located in Southern California, Siskiyou County does not have the feedlot infrastructure to support an uninterrupted supply. Furthermore, interviews with producers revealed that most commercial growers are happy with their present production arrangement with Harris Ranch. Producers growing for Harris Ranch follow strict genetic and management protocols at the beginning of the supply chain to assure the end product meets the consumer/market demands. For this reason, most producers are not willing to risk interruption of this arrangement. Equally important is the consideration of seed capital. A facility this size would represent a great deal of investment capital to be raised for initial construction and operating costs. It is unlikely that local producers are willing to see the value vs. risk for such a facility.

Market Potential

Siskiyou County livestock growers could benefit from the low-carb craze that has spurred consumers to look favorably at meats of all kinds. Concerns about bovine spongiform encephalitis (BSE or mad cow disease) have expanded markets for natural and organic meats *(see Exhibit A.4 OTA Mfg survey, 2004)*.

> *"The Atkins diet has had a huge effect on meat demand in North America," Jim Long, meat analyst and CEO of genetics company Genesus told* ***FoodProductionDaily.com****. "Meat is a good source of protein, and this has been identified as a good thing. And in North America, meat protein is also relatively cheap compared to the rest of the world."*

This segment of the meat industry is growing at a compound annual growth rate above 40% annually. Natural and organic meat is classified as:

Natural - This category is interesting from a marketing perspective due to its explosive growth and the parallel evolution of standards. But caveat emptor: The only restrictions the USDA imposes on use of the word natural is that it be "minimally processed," with no artificial ingredients or preservatives. Most products with this label are usually from cattle raised without added hormones or antibiotics and not fed animal by-products.

Pasture/Grass Fed Meats - These are praised as being more flavorful, more nutritional and of higher food safety quality. Grass-fed meat, grain-fed meat

Organic consumption is rising, survey says
published 10/25/04 on
www.meatingplace.com
By Pete Hisey

Slightly more than a quarter of Americans are eating more organic products than they were a year ago, and nearly 10 percent say that they regularly consume organic products, according to a survey of 1,000 Americans conducted for Whole Foods Markets.

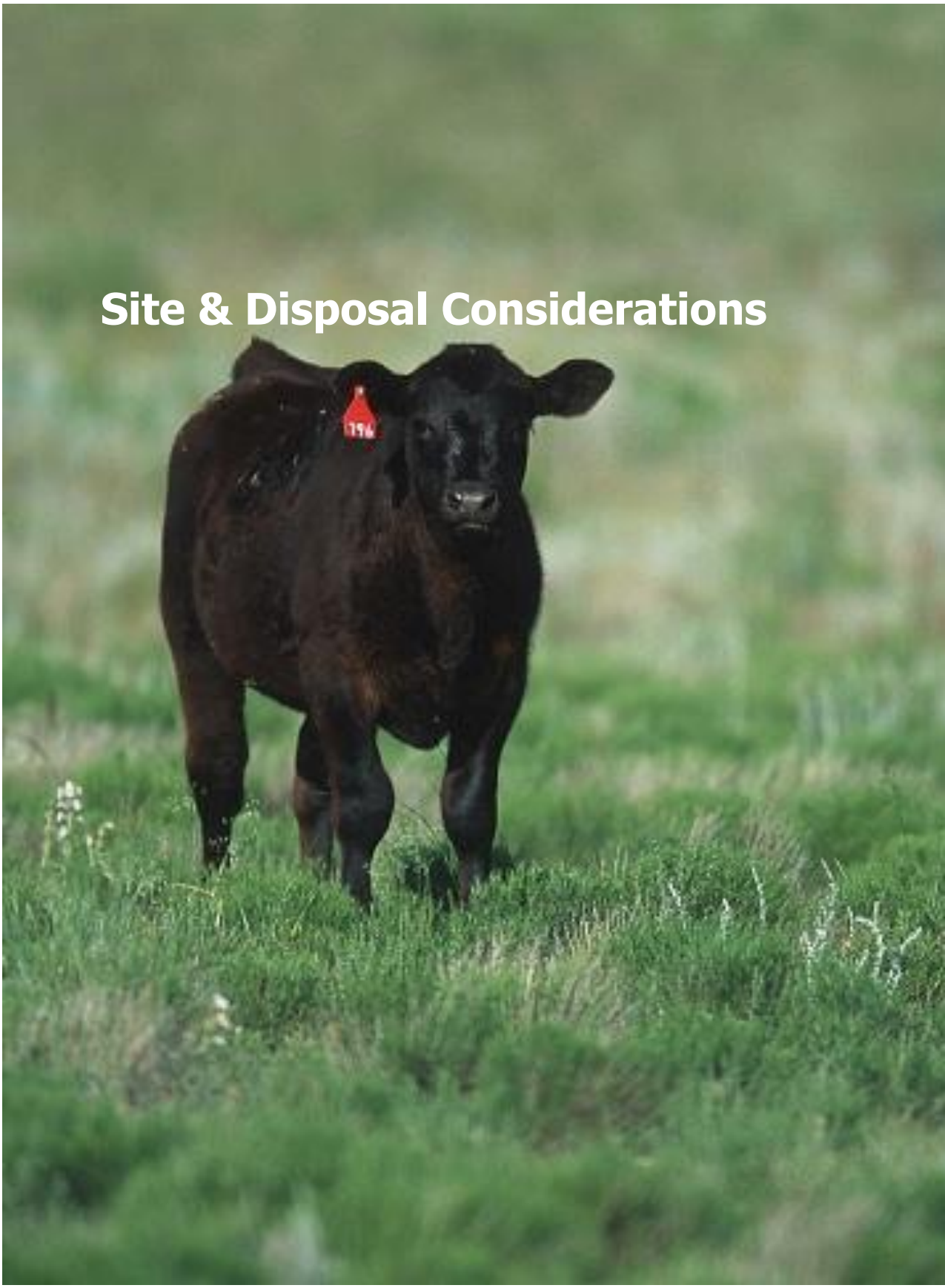
The study, conducted by Synovate in August, found that the most common impetus for eating organic goods was that they are perceived to be better for the environment (58 percent) followed by a perception that they support small and local farmers (57 percent). Large numbers also said organic foods are better for one's health, are of better quality and taste better than competing products.

According to Margaret Wittenberg, vice president of governmental and public affairs at Whole Foods, the market for organic food products increased by some 20 percent last year and now totals $10 billion a year.

contains more total fat, saturated fat and calories. It also has less vitamin E, beta-carotene, omega-3 fatty acids and conjugated linoleic acid. There is scientific data to back up these claims, although there is much disagreement about some of the research as well as the nutritional relevance of these differences.

Organic Beef - Organic beef sales are growing by double digits — twice as fast as the rest of the organic industry. Whereas the requirements for "natural" meats are not subject to federal government oversight, organic products are audited by federal government authorized certifiers to assure compliance with the National Organic Program rules. The rules are similar to those for the natural meats, with the addition of the strict audit requirement mentioned above and the requirement that organic animals be fed organic feed.

Site & Disposal Considerations



Site & Utility Considerations

A suitable site will need to be considered for all three of the scenarios discussed in this report. At the very least, the site will need to be equipped with hookups to dump wastewater for municipal processing. The regulatory climate and wastewater discharge standards dictate that a site with access to advance sewage/wastewater treatment is essential. Even a portable or prefabricated facility will require a permanent site due in-part to water/wastewater services and new regulatory requirements that are rumored to entail the tracking of all "on farm" killing and slaughtering of beef[8].

Freshwater consumption has a major impact on the volume and pollutant load of the resulting wastewater. Freshwater used to rinse carcasses during the kill and stored in a MSU will need to be dumped to be treated. Unlike the state of Washington, on farm composting is not allowed in California.

Wastewaters generally have high organic loads and are also high in oils, grease, salt, nitrogen and phosphorous. During the slaughter process, water is used primarily for washing carcasses and for cleaning at the end of each shift. Eighty to ninety-five percent of water used is discharged as effluent. The wastewater from a slaughter facility typically contains blood, manure, hair, fat, and bones and may be at high temperatures. The following is a summary of offal and waste products generated during the slaughter process.

Process Area	Process Area Wastes
Transportation- receiving and holding	Slaughter blood, fluids manure, hair, feathers, grit, and mortalities.
Cleaning	Blood, feathers, skin, bone, hides, and beaks.
Trimming and Evisceration	Inspection - contaminated and rejected materials; trim scrap, offal, and paunch material.
Further Processing	Cooling and storage - contaminated ice, damaged product, and off-spec inventory. Meat scraps, cheeks, hides, feet, offal, bone and fat.
Prepared Foods	Fermented, smoked, pickled foods, spices, brines, sauces, spoiled materials, and drippings. Additives, oils, grease, sauces, and damaged product.

[8] Interview with Mr. George Works, Central Valley Grower, MSU

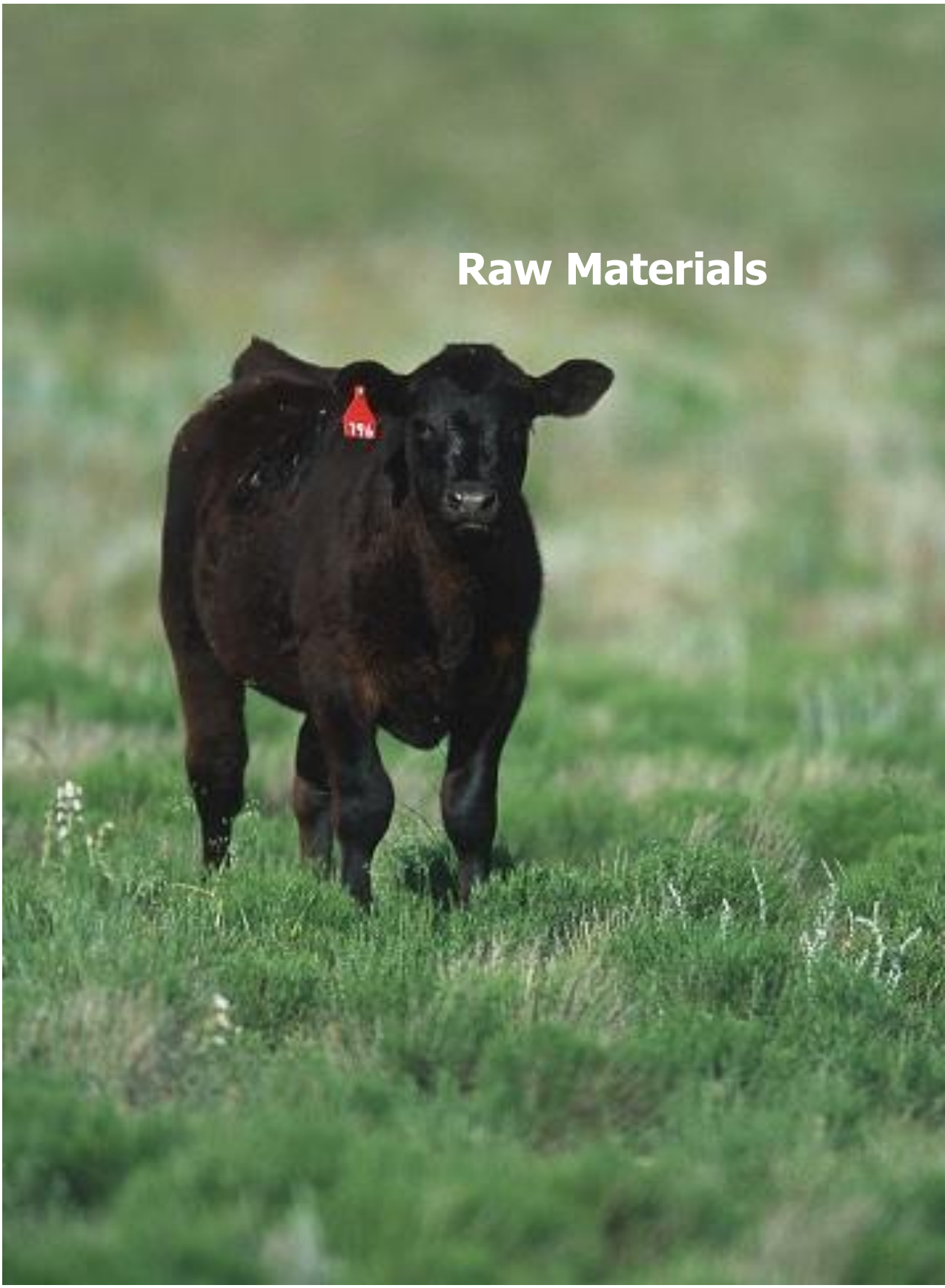
Regulatory & Permit Issues

Permanent constructed slaughter facilities are for the most part licensed, permitted and regulated by the USDA - Food Safety and Inspection Division (FSID). On the other hand, mobile and prefabricated units require the input from local, state, and federal agencies.

Unlike the San Juan Islands and Washington, California does not allow for composting of animal products. These state regulations are not expected to change in the foreseeable future. Consequently, any commercial slaughter facility located in Siskiyou County will need to find a market for the above mentioned products (wastes) or pay rendering facilities to pick up and dispose of the waste products.

California Rendering Companies	
Company	**Location**
Ventura Rendering Co.	Ventura
Darling International, Inc.	San Francisco
Baker Commodities, Inc.	Kerman
Star Processing	Los Angeles
Darling International, Inc.	Los Angeles
Darling International, Inc.	Fresno
Ottone-Salinas, Inc.	Salinas
Marichu Celis Co.	Los Angeles
Cargill	Los Angeles
A R Archtl Rendering	San Leandro
Darling International, Inc.	San Diego
Kings-Tulare Tallow Works	Hanford
Darling International, Inc.	Turlock
Aquafauna Bio-Marine, Inc.	Hawthorne
Captek Softgel International	Cerritos
A K Siewers	Santa Cruz
Sacramento Rendering Co.	***Sacramento***
North State Rendering Co.	***Chico***
Co-West Commodities	San Bernardino
S & S Foods	Azusa

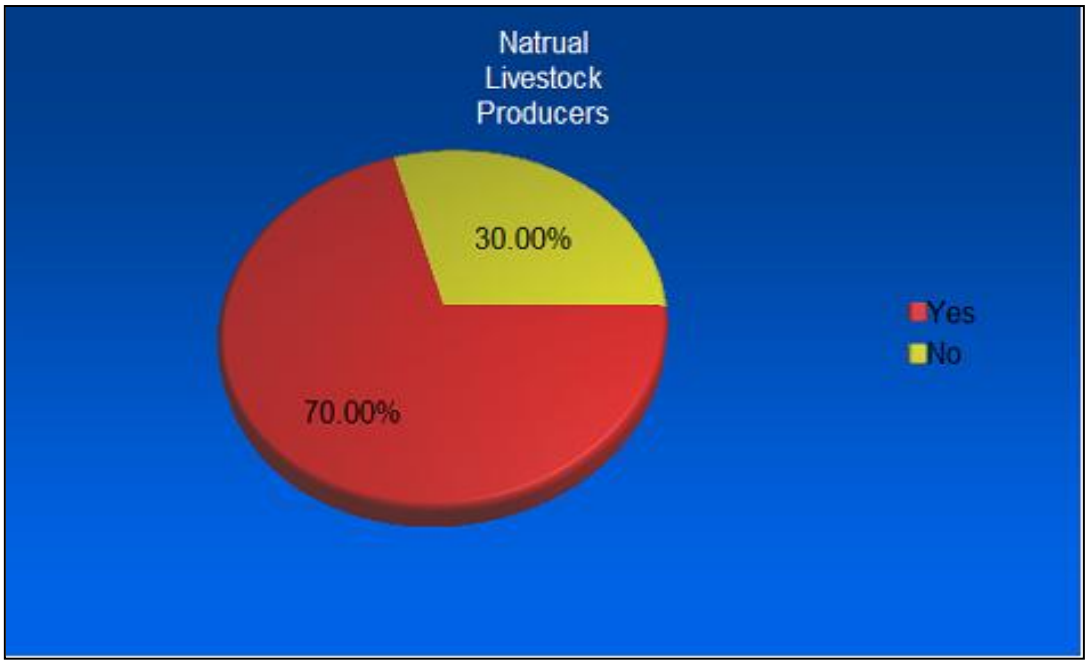
Source: ED "ON CALL" Dun & Bradstreet


Raw Materials

Considering that the majority of the larger commercial growers are already committed to the Harris Program, it is recommended that the facility (venture) targets growers that could supply animals for the natural/organic niche markets. The reason for this is two fold; the value of the end product is much higher than traditional meat processes for the general consumer, and smaller growers that are not participating in the Harris Program can have a market outlet for animals.

In an effort to gain a better understanding as to the inventory of animals that might be available, the consultant implemented a survey. Letters were sent to approximately 165 local producers. The unsolicited[9] survey received a 13% return rate. These respondents represent approximately 12,000 head of cattle and 250 head of sheep. The following charts and tables demonstrate Siskiyou growers' acceptance to providing livestock to a facility or MSU (see Exhibit A. 5 letter/survey).

Chart 1 - Siskiyou Naturally Raised Livestock



[9] Definition: without telephone calls or personal visitation.

The following Chart "Distance to Processing" shows that at least one third of the local producers are sending animals a considerable distance to be processed. With the rising cost of transportation and fuel, these producers are prime candidates to support the facility/MSU.

Chart 2 - Distance to Have Siskiyou Livestock Processed

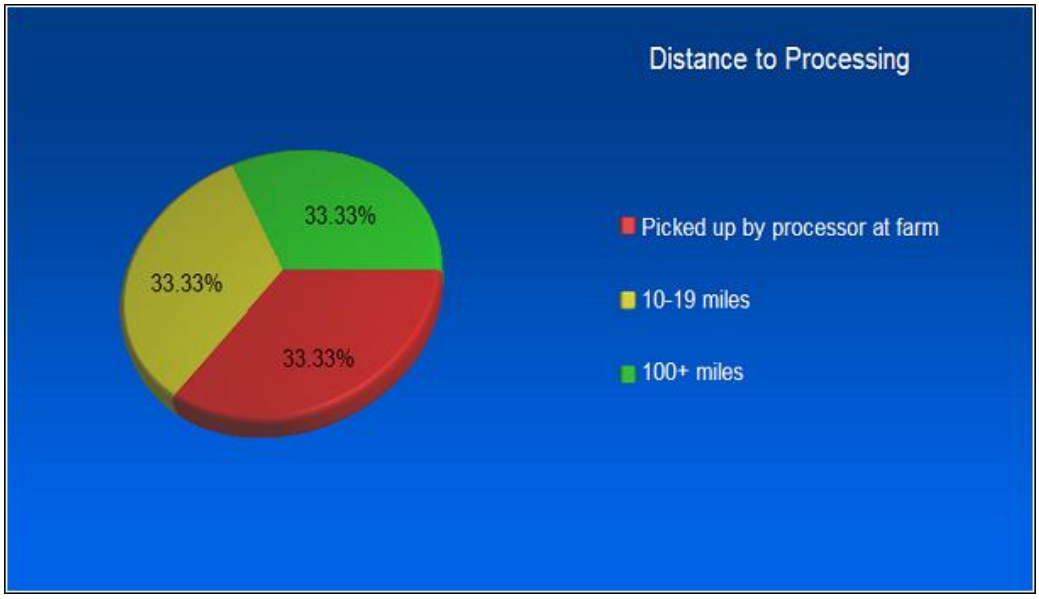
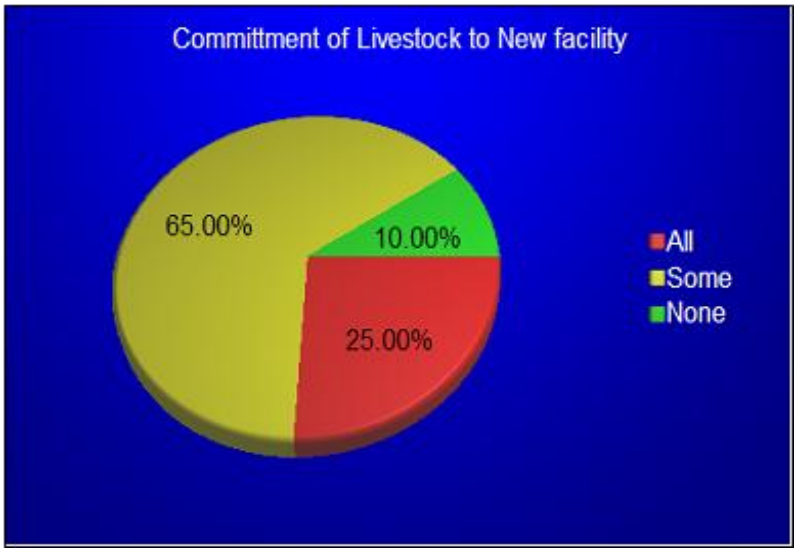


Table 3 - Services Requested

Processing Options	Responses (%)
USDA Facility	29.55
Non-USDA Facility	6.82
Aging	9.09
Smoking	6.82
Curing	4.55
Cryo-packaging	4.55
Sausage making	4.55
A method of offering a private farm label	2.27
A Marketing organization	2.27
More cut & wrap options	2.27
Outlet for natural, organic, or other specialty products	18.18
Trucking and distribution	4.55
Better outlet for the extras	4.55

Chart 3 - Growers Willing to Commit Livestock




Capital Requirements

Development capital will be required to fund the construction or purchase an MSU and fixed facility (further processing and storage area). The operating entity will also be required to provide some startup funds in the form of working capital and/or equipment. In this analysis, we have assumed that the funding for the building upgrades will be a loan financed over a 15 year term at 8% interest. Startup and working capital will be provided from equity investment by owners of the operating entity.

The fixed facility requirements assume that the project will start with building a shell[10], which has a utility service such as municipal water, sewer, electrical and road access in place. Remodeling of the interior into any processing facility and the purchase of processing equipment consist of the total capital investment. In each case, the fixed facility is sized to meet the capacity operation of the MSU. Startup and working capital is equal to the average expense for four months of operation. The total capital is presented in *Table 3* and detailed breakdowns of the costs are presented in tables that follow.

General Operating Assumptions

Any financial projections are dependent on the assumptions made when information is not immediately available. The general assumptions for this operation are presented as follows:

1) The MSU and fixed facility are operated as one USDA inspected establishment and integrated business.
2) The processing is done on a fee for service basis with ranchers or a separate marketing company maintaining ownership of the meat products. Therefore, no revenue or expenses associated with marketing of meat products are included in this analysis.

[10] Note: Siskiyou EDC has existing space available in the incubator and commercial kitchen facility. A undeveloped lot next to the EDC could be developed (water/waste water connection) to use as home-base for the MSU. Further research to identify City of Yreka wastewater requirements/standards is recommended.

3) The nominal annual capacity is determined from an expected operating average of four days per week. The non-operating fifty-two days per year are allocated for statutory holidays, regular maintenance and unscheduled downtime.

4) Actual capacity is nominal capacity adjusted for anticipated seasonal fluctuations in livestock availability.

5) Beef and lamb are processed in equal numbers of animals. Consequently, 80% of the operating time is for beef and 20% for lamb.

6) Beef carcasses are dry aged for fourteen days and lamb for five days. To meet this requirement, the fixed facility cooler is sized to hold the maximum production expected in any two-week period.

7) The fixed facility is designed to accommodate the MSU operating at full capacity.

Projected Operating Financials

The operating revenue and expenses were developed as a financial projection model calibrated with two years of actual operating data obtained from the operation of the MSU in Washington. While there are many variables that affect this analysis such as labor rates, facility rent and interest on loans, the one of significant interest to ranchers is the fee charged for processing.

Table 4 - Summary Facility Capitalization Costs

Mobile Unit	$161,000
Fixed Facility	$297,500
Startup and Working Capital	$130,000
Total	**$588,500**

Source: ED "ONCALL" Report MSU Wyoming Assessment of Needs & Values, 2004

Table 5 - Mobile Unit & Equipment Costs

Equipment	Cost
Custom trailer as delivered from factory	$64,000
License & Taxes	$6,000
Additional Equipment & Installation	$25,313
Truck (estimate for a serviceable used truck)	$20,000
Refrigerated Truck (estimate for a serviceable used truck)	$25,000
Commissioning &Testing	
Validation Testing & HACCP Plan/Training	$4,500
Staff Training	$1,500
Design & Project Management	$15,000
Total	**$161,313**

Source: ED "ON CALL" MSU Wyoming Assessment of Needs & Values, 2004

Table 6 - Further Processing Facility Costs

Capital Item	Cost
Interior Remodeling Construction	$175,000
Refrigeration Installation	$68,000
Processing and Packaging Equipment	$36,000
Carcass rail system	$15,000
Office Equipment and furniture	$3,500
Total Capital	**$297,500**

Source: Report MSU Wyoming Assessment of Needs & Values, 2004

Table 7 - Operating Budget Income

Annual Capacity (beef/lamb per year)	1248/1248
Processing Fees Per Head (beef/lamb)	$241/$44
INCOME	
Slaughter Services	$113,553
Cut & Wrap Services	$274,041
TOTAL INCOME	**$387,594**

Table 8 - Mobile Slaughter Unit Expenses

Unit	Cost
MSU Slaughter Services	
Allocated Share of Lead Butcher	$25,382
Slaughter Assistant Labor	$27,540
Payroll tax & Benefits	$7,938
Mobile Unit Fuel & Oil	$8,813
Propane	$367
Equipment Repairs	$5,678
Insurance (auto portion)	$5,000
Consumable Supplies	$7,949
Vehicle Taxes and & License	$1,344
Total MSU Costs	**$90,011**

Source: Report MSU Wyoming Assessment of Needs & Values, 2004

Table 9 - Further Processing Expenses

Cut & Wrap Facility	
Direct Labor (Allocated Share of Lead Butcher)	$114,926
Payroll tax & Benefits	$18,832
Insurance	$976
Utilities:	-
Electricity	$5,160
Water	$360
Microbiological Testing	$7,752
Laundry	$1,404
Equipment Repair	$3,960
Equipment Calibration	$200
Pest Control	$360
Rendering Pickup & Disposal	$1,440
Small Tools	$317
Supplies	$27,404
Total Cut & Wrap Costs	**$183,091**

Source: Report MSU Wyoming Assessment of Needs & Values, 2004

Table 10 - Administrative Expenses

General Administration	
General Manager	$40,000
Payroll tax & Benefits	$6,000
Telephone	$1,680
Internet Email	$198
Licenses and Permits	$150
Office Supplies	$1,080
Accounting & Legal	$1,080
Auto Expenses	$492
State Business Tax	-
Postage	$540
Bank Charges	$192
Facility Capital Upgrade	$34,117
Loan Payment	-
Mobile Unit Loan Payment	$18,463
Facility Rent Payment	$10,500
Total G & A	**$114,492**

Total Expenses	**$387,594**
Operating Profit (Loss)	$0

Source: Report MSU Wyoming Assessment of Needs & Values, 2004

Organizational/Managerial Options

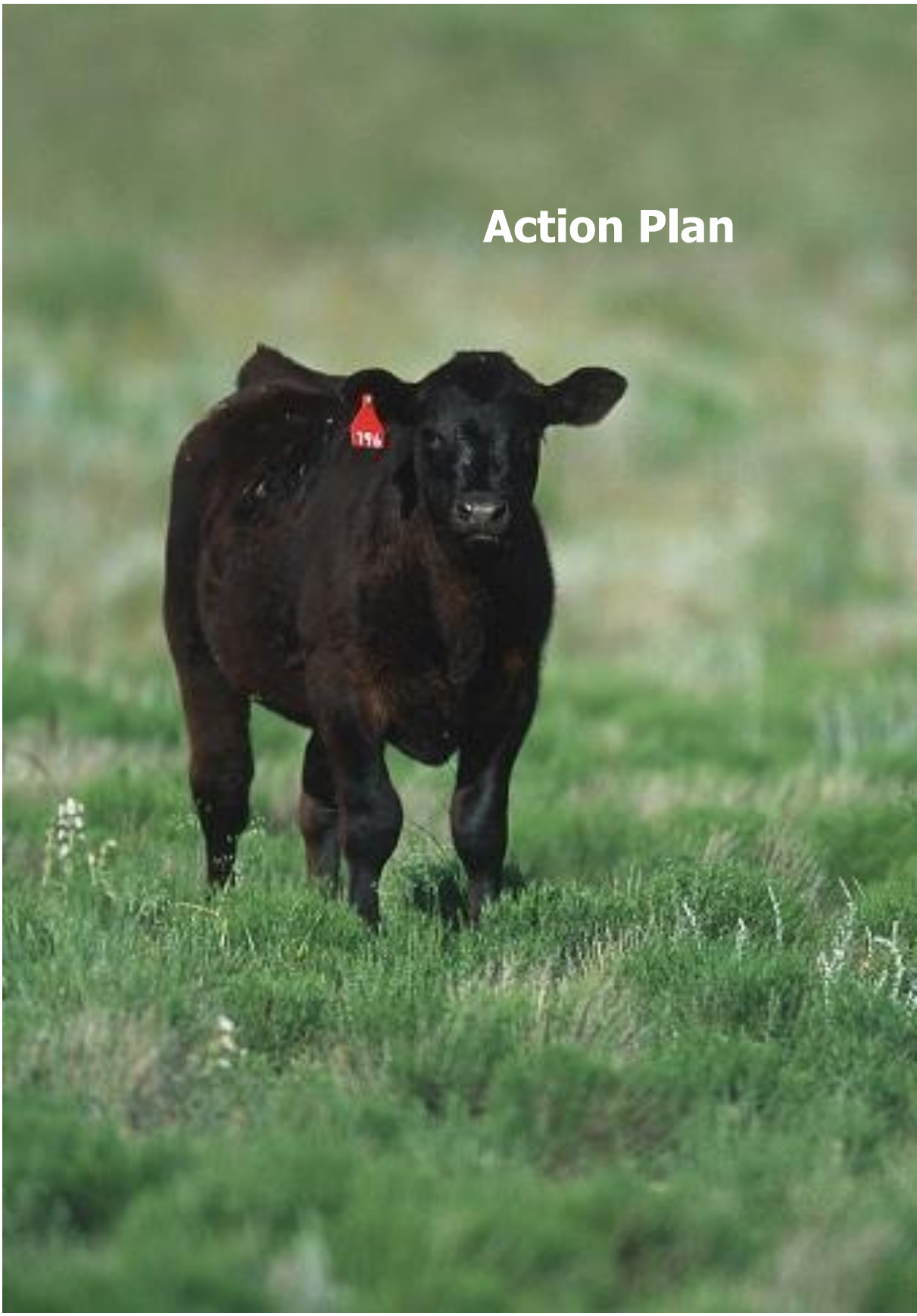
Several organizations can lend talent to organize a management team for the development of this project. These agencies include the local Resource Conservation and Development District, Great Northern Corporation, Siskiyou EDC., Farm Bureau, Cattlemen's Association, and other businesses and farm agencies. These particular agencies bring a great deal to the table when it comes to management experience, identifying resources, and lobbying for support.

Nevertheless, the overall management operation of this project cannot be successful without the local growers themselves. Growers are needed not only for their management experience, but also to help capitalize the initial investment. The true test whether this project could be successful rests on the shoulders of the growers. More important, it is the growers that will be required to provide equity investment for grant match requirements, working capital, and fund marketing/advertising activities.

The term "public private partnership" has become quite familiar whereas an agreement is reached between a public agency (federal, state or local) and a private sector entity (growers). Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.

Selecting the type of organization that will move this project from the feasibility stage to the operations stage is an important step. Members of this selected group should have the following qualities:

- Character matters - are the people involved of outstanding character?
- Do the founders have the "fire-in-the-belly" required to take the project to completion?
- Do the founders have the skills and ability to complete the project?
- What key individuals will lead the project?
- Is there a reward system for the founders? Is it based on business performance?
- Have the founders organized other successful businesses?


Action Plan

With this in mind, growers, community and economic development representatives, and leaders of the agriculture industry sectors should explore this concept in further detail. The following is a list of tasks to be accomplished as a result of this study.

Planning Tasks for operations of the enterprise

The following is an example of the tasks that will need to be accomplished to move the concept forward:

1. Draw up an organization chart of the enterprise.
2. Prepare the operational plan (business plan) for the first year of activities.
3. Negotiate contracts for the supply of necessary products and services (inputs) and as required sales or marketing contracts.
4. Devise and implement an ad hoc accounting system.
5. Define the duties and responsibilities of each position.
6. Redefine financial figures and budgets.

Planning Tasks for organizing the enterprise's start-up financing

1. Determine the value of the membership share to become a member.
2. Evaluate the value of the share capital on start-up and during the first three years of operation (in terms of the expected growth in the number of members).
3. Prepare the preferred share by-laws (if applicable).
4. Prepare the loan by-laws (if applicable).
5. Draw up the overall financing plan for the first three years of operation.
6. Draw up the business plan.
7. Negotiate the capital contribution of external financial partners (if necessary); venture capital corporations, private funds, or public investment programs.
8. Apply for a government start-up grant (if it is available and if required).
9. Negotiate medium term credit or bank loans and a line of credit.

Exhibits

Exhibit A. - Attachments by Reference

Exhibit B. - Research Materials