Large Animal Meat Processing Feasibility in Western North Carolina

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About ASAP (Appalachian Sustainable Agricultural Project):

ASAP has been a national leader in the local food movement for more than a decade. ASAP's mission is to help local farms thrive, link farmers to markets and supporters, and build healthy communities through connections to local food. The organization's work includes a broad array of planning, communication, grassroots organizing, research, and advocacy in order to generate awareness and increase consumer demand for local food, develop the regional capacity to support local farms, expand the availability of locally grown food, and foster systemic change in agriculture and the food system.

www.asapconnections.org

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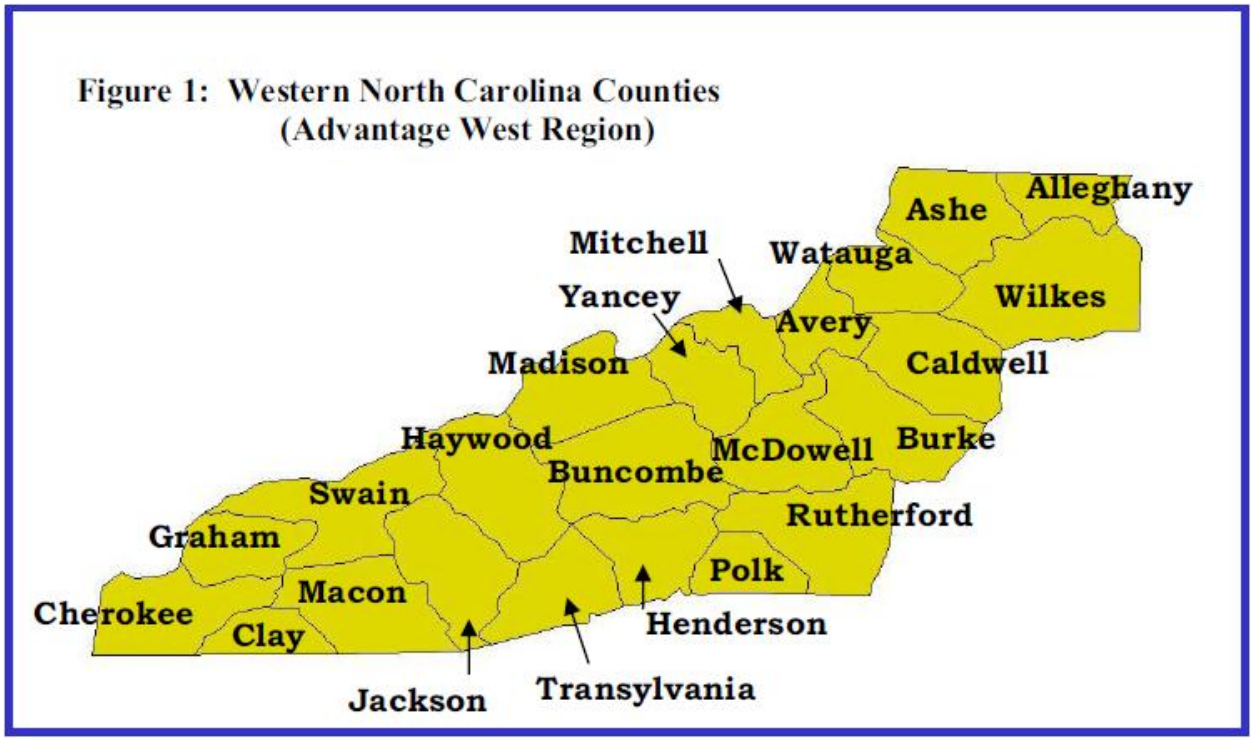
Introduction

The objective of this study is to determine the feasibility of establishing a new multi-species large animal processing facility in the central mountains of Western North Carolina (WNC). The study finds a need for increased processing capacity in the region and the potential for a profitable new facility.



To achieve the objectives of the study, researchers 1) conducted a review of existing large animal meat processing feasibility studies from across the country to identify key issues and examine break-even analyses; 2) surveyed local large animal meat producers to measure current production, potential production, and demand for large animal processing; 3) interviewed regional larger-scale food buyers to assess the scope of purchasing opportunities for locally raised and processed meats; and 4) conduct an analysis of fee-from-service cash flow scenarios to estimate the production volumes required to achieve current-account break-even status.

For the purposes of this report, processing plants are defined as those that offer slaughtering services as well as a broad range of whole-carcass butchering and packing options. Non-commodity, or niche meat, is defined as meat produced by smaller-scale, non-commodity farmers, often with marketable attributes such as organic, grass-fed, local, hormone free, antibiotic free, certified humane, Halal, Kosher, pasture raised, etc. Some attributes are associated with farming practices; other attributes are associated with the slaughter and processing stages.

This study assumes that the supply "input" for a new, large animal multi-species slaughter and processing facility in WNC would be produced by farmers in the region. Additionally, this study assumes that meat processed through a facility located in the WNC region would be sold directly by the producer to regional buyers for retail sale to WNC consumers.

In the context of consumer demand for meat produced outside of conventional production channels, and with anecdotal evidence from producers about the deficiency of processing in the region, ASAP's Local Food Research Center conducted this exploratory study to make a preliminary determination of the financial viability of a new regional processing facility. To determine if the conditions exist to support expanded regional large animal processing infrastructure, the research asked:

Is there enough demand from producers to support a new facility?

Is there enough local production to support the operating costs of a new facility?

Is there enough local consumption to support a new facility?

Would local larger-scale buyers be likely to purchase locally processed meat from a new facility?

This report begins with a summary of the evidence for demand in support of establishing a regional processing facility in WNC. The next section details the conditions required for a facility to be profitable. The conclusions and recommendations detail considerations for the establishment of a facility (including examining the potential and capacity for expanding existing infrastructure) and conclude that a full feasibility study should be conducted.

Regional Demand for Niche Meat Processing

ASAP launched a Local Food Campaign over a decade ago to raise awareness about local agriculture and build markets for locally grown food. Today, consumer interest in buying food from the region's farms is growing and demand for local products often exceeds supply. ASAP has conducted a number of consumer studies over the past decade[1,2] that document increasing interest in local food among WNC residents. In surveys conducted in 2004 and 2011, the percentage of WNC consumers indicating local food is a significant factor in determining where they eat or shop increased from 42 percent to 70 percent. In 2011, 83 percent of respondents said that when locally grown food costs more, it is worth the extra cost. This figure is up from 71 percent in a 2000 consumer survey. Overall, while respondents' primary motivators for local purchases have remained consistent over time – buying locally grown food supports the local

[1] Research Inc., "Locally-Grown Foods Strategic Positioning Research", (Alpharetta, GA: Research Inc., 2004). http://www.asapconnections.org/special/research/Individual reports/Strategic positioning research.pdf
[2] TJH Research and Strategy, "A Survey of Consumer Behavior and Perceptions: Findings from a Spring 2011 survey of primary household food shoppers in Western North Carolina", (Washington, DC: TJH Research and Strategy, 2011). www.asapconnections.org/ASAP2011ConsumerSurveyWeb.pdf

economy and local farms – the number of respondents who cite this belief has risen considerably from 61 percent in 2004 to 79 percent in 2011.

A steady increase in sales of locally grown food supports the consumer research. Consumer purchases of products from Appalachian Grown™ certified farms have risen dramatically. [3] Between 2007 and 2010 sales of local food increased by 263 percent – from $17 million in 2007 to $62 million in 2010 (see Figure 2). [4]

As markets for locally grown food have matured in the region, more consumers are looking for locally raised meats, and more producers are raising livestock for local markets. Over the past decade, the number of livestock producers in WNC growing for local markets has increased from a small handful to 95 producing beef, 70 producing pork, 36 producing lamb, 26 producing goat, and 2 producing bison.[5]

Despite growing consumer demand, meat producers face challenges related to large animal processing that impact their ability to produce desired products and access particular markets. Processing limitations in the region translate into time and expense transporting animals and into finding processors with adequate equipment and skills to prepare products that meet market requirements.

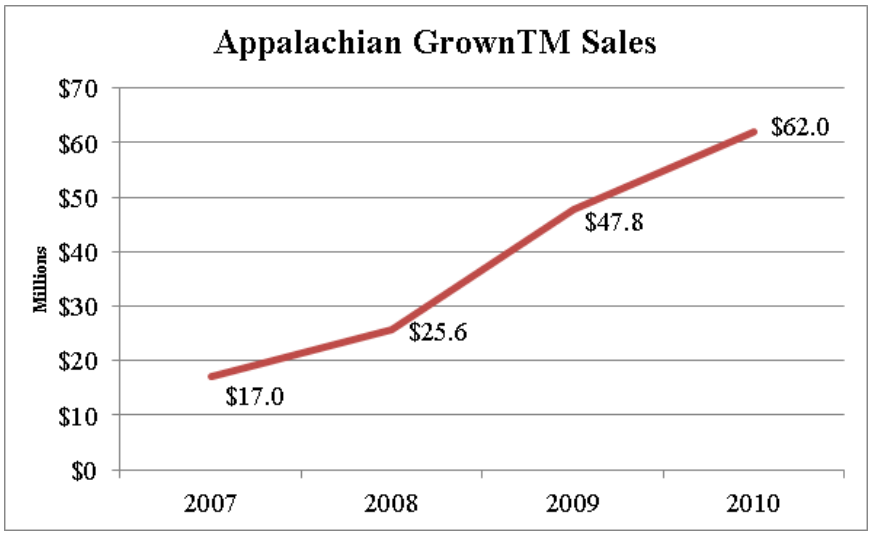


Figure 2: Appalachian Grown™ retail sales, 2007-2010.

[3] The Appalachian Grown regional branding and certification program is a project of ASAP, which identifies local farm products in stores and restaurants and at other businesses.
[4] Annually, ASAP collects sales data from Appalachian Grown certified farms and purchasing data from businesses to estimate local food sales in WNC. Data from 2011 is currently being analyzed.
5 Appalachian Sustainable Agriculture Project, "Local Food Guide Online," buyappalachian.org. 2012. http://www.buyappalachian.org/

Demand from Producers and Existing Processing Facilities

As shown on the map in Figure 3, there are multiple processing facilities in and on the edges of the WNC region but no facilities located in the central mountains.

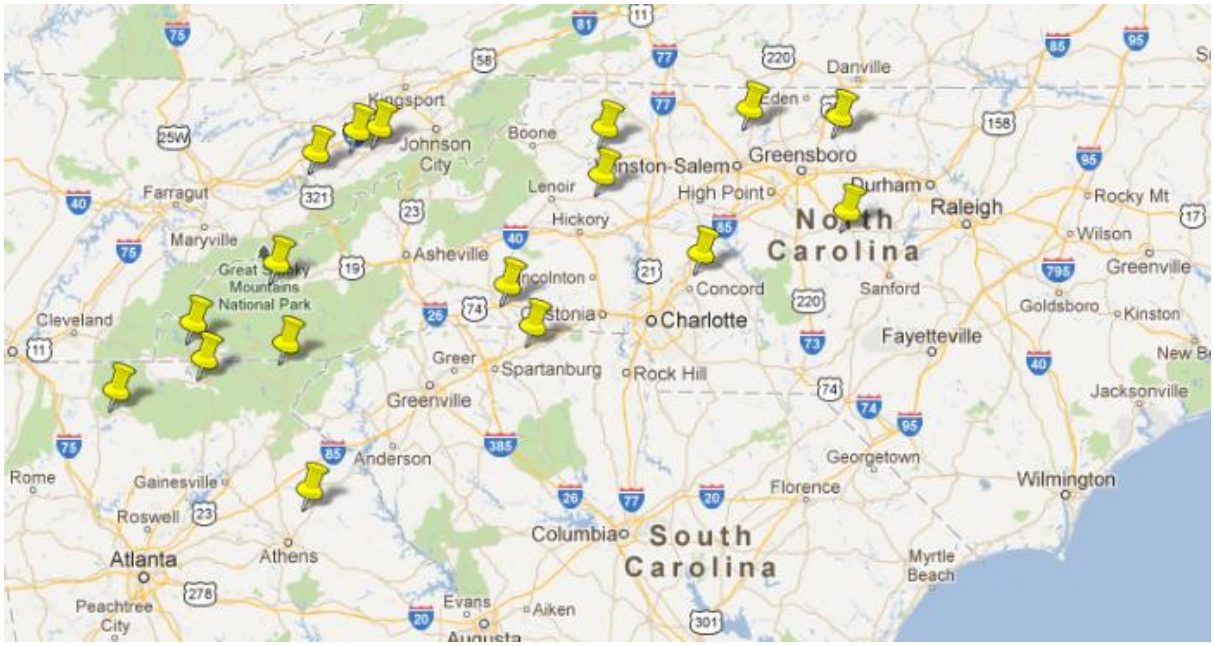


Figure 3: A map of the processing facilities utilized by meat producers who responded to the Producer Survey.

ASAP researchers conducted a survey of large animal meat producers in the region to determine current production capacity and potential production capacity and to assess demand from current and aspiring meat producers for regional processing. Despite numerous small processing facilities, findings from the farmer survey demonstrate high demand for a new facility.[6] Nearly 60 percent of respondents indicated that the availability and accessibility of current slaughter and processing facilities is "very deficient for current demand." Illustrated by the following responses, for respondents, the location and quality of existing processing facilities requires too much travel and directly impacts their ability to meet growing consumer demand.

> "We drive 2 hours each way to deliver our livestock for processing. A facility in WNC is KEY to growth of this industry. The buy local demand in WNC is tremendous."

> "Having a closer high quality meat processing option would add considerably to our bottom line because transporting animals that far away is very costly."

Production Potential

With the perceived processing limitations, 82 percent of producer respondents said that they would produce animals for processing at a facility located in the central mountains of WNC. Furthermore, producers indicated that with a processing facility in the central mountains

[6] See the full results of this survey in Appendix A: ASAP Producer Survey Summary.

(offering improved services at their current processing costs) they would increase their production by an average of 34 percent. For a 30 percent price reduction, producers would increase production volume by an average of 50 percent. For a 50 percent price reduction, they would increase production volume by an average of 73 percent.

Additionally, the findings from the Producer Survey show that a majority of respondents, 80 percent, could or currently do produce animals year-round, an important factor to the financial viability of a regional processing facility.[7] Nearly 28 percent of respondents already produce livestock year-round; 38 percent indicated they could adjust their livestock management practices to produce year-round. An additional 14 percent indicated they could adjust "with some strain."

Buyer Demand

Findings from targeted interviews with regional wholesale distributors and retailers echo the demand from the region's consumers.[8] Larger-scale retail grocers and broadline wholesale distributors[9] serving the WNC area were interviewed and asked about their interest in purchasing locally produced, locally processed red meats. The results of the interviews show strong interest. For respondents, the reasons to source locally raised meats relate mainly to producer practices (i.e., naturally/humanely raised), meeting demand from customers, and differentiation from competitors.

All of the interviewed buyers currently market niche meat products to their customers – ranging from one percent of total red meat sales to 20 percent of total red meat sales – and all expect their volume of niche meats to increase during the next year from between five percent to 30 percent. The degree of interest in sourcing locally raised meats varied. When asked, "If a locally raised source of fresh cuts of meat were available what percentage of your total sales would you purchase locally?" buyer responses ranged from 10 percent to 100 percent. Similarly, when asked the same question about a locally raised source of value-added meat products (e.g. kielbasa, Andouille) buyer responses ranged from five percent to 100 percent.

Planning for Regional Facility Success

The results of the producer survey demonstrate demand for a regional processing facility. The results of buyer interviews show interest by larger-scale retailers and wholesalers in sourcing locally raised meats. While facilities exist in or near the region, responses from livestock producers point to processing limitations related to the costs of travel and the ability to produce products with desired marketable qualities. Feedback from buyers confirms consumer interest in locally raised meats and buyers' desire to meet that demand.

With the growth of the local food movement nationally, interest in the establishment of regional meat processing facilities across the country is increasing and a number of new facilities have

[7] Ibid.
[8] See the full results of this survey in Appendix B: ASAP Buyer Interview Summary
[9] The mix of buyer respondents included three mainstream grocery chains and one broadline distributor. See Appendix B.

been built in response.[10] To identify the critical factors that contribute to the success or failure of facilities, ASAP conducted a review of existing meat processing feasibility studies.[11] Studies cited the following issues for unsuccessful enterprises:

- **Insufficient start-up capital.** Insufficient capital burdened five out of the six failed businesses examined**.** In some cases, businesses tried to make up the capital gap by "cutting corners," others by increasing prices. Both strategies make it even more difficult to run a successful business.

- **Management incompetency.** Some businesses did not plan adequate compensation for plant management. One small producer-owned co-op only budgeted for a part-time manager and found that this was grossly inadequate for the amount of work required.

- **Identifying and retaining a skilled labor force.** A common challenge faced by failed as well as successful businesses was finding competent labor. Although the work done on the cutting floor is crucial to the quality of the end product, most plants cannot afford to offer employees much more than minimum wage. The strong seasonality of meat processing also means that it is hard to keep employees employed throughout the year; most plants have a high turnover rate, making the difficulty of finding qualified labor a constant issue.

- **Insufficient planning.** The studies show that many plants failed to plan sufficiently. Among the consequences of this failure were that these businesses found themselves with insufficient volumes of animals**,** or many fewer animals than were anticipated.

Despite these obstacles, there are small regional processing facilities that are able to compete successfully in the marketplace. These successful enterprises are marked by an assortment of factors that allow them to overcome start-up and operational barriers. Strategies for success include:

- **Product certification (including organic, all natural, or animal welfare).** The successful businesses reviewed for this study shared the critical detail of strong product marketing strategies. Successful plants often became certified in their processing practices in order to serve targeted market niches.

- **On-site retail.** Studies show that processors with a retail-oriented focus on processed products tend to be more successful than those who rely on fresh or unprocessed product.[12]

[10] Rachel L Johnson, Daniel L.,Marti, and Lauren Gwin, "Slaughter and Processing Options and Issues for Locally Sourced Meat", (Washington, DC: USDA ERS, 2012). www.ers.usda.gov/publications/ldpm-livestock.../ldpm216-01.aspx
[11] Local Food Research Center, "Regional Large-Animal Meat Processing Plants: Summary of Economic Viability", (Asheville NC: ASAP, 2012). http://www.asapconnections.org/research.html
[12] Ibid.

- **Creative methods for selling non-prime cuts of meat.** Some parts of the animal are much easier to market than other parts, and businesses who do not plan for dealing with less desirable cuts and offal suffer losses. Further processing options, or cutting meats into portions that include both a prime and non-prime combo (roast with ribs attached) are two ways successful processors have dealt with this issue.

- **Brand identity established at the start of the processing venture.** Two of the processing businesses studied were able to make a smooth transition into meat processing, because they already had established well recognized food brands. Moving into meat processing was a strategy to diversify their brand and provide new opportunities to an existing customer base.

- **Strong marketing focus.** Meat processing is a very competitive industry, and new processing facilities must have clear, targeted messaging strategies in order to entice potential customers. Processors who use certification programs or branding campaigns tend to be more successful than those who do not.

- **Diversified customer outlets.** It is important for processing facilities to consider the types of customer outlets their producers will eventually be selling to and tailor their processing options to suit those needs. For instance, the needs of a large, regional wholesale chain might be very different from the local restaurant scene.

- **Sophisticated cost monitoring.** Large industrial meat processing facilities often process animals in ways that make it relatively easy to calculate average costs. For smaller regional facilities, the formulas are not as simple. Completing small segments of diversified products requires in-depth costing analysis in order to create proper revenue streams.

The case studies of successful processing facilities tended to share similar qualities in the areas of strong product marketing techniques, smart leadership, and conservative business plans. However, each facility studied was faced with a distinct set of obstacles and opportunities unique to the economic conditions of their particular region. While blanket statements about the rules to creating a successful processing facility are difficult to make, it is certain that one requirement for a successful plant is that the region must have the appropriate economic conditions (supply and demand) for a facility to succeed.

Facility Viability: Key Economic Considerations

This section focuses on the economic conditions required to financially sustain a regional large animal processing facility in WNC. The per capita meat consumption of WNC residents is examined in relation to the production required to meet that consumption. This production-consumption evaluation is compared to the results of break-even analyses of feasibility studies to determine economic viability.

As part of this research study, ASAP conducted a preliminary assessment of the key economic and financial considerations that should be addressed in a comprehensive feasibility study. This

line of research was driven by the question: *What are the economic conditions required for a regional large animal meat processing facility to be profitable?*

To begin to address this question, research focused on a review of existing feasibility studies and the economic considerations of building a niche meat slaughter and processing facility. The studies were comparable in their approaches and used similar variables to determine the profitability thresholds for a variety of large animal processing facility sizes. The key variables used to determine profitability included: the cost to build a new facility; estimates of production volume; facility operating costs; capital requirements; equipment and personnel costs; sources of capital; and in some cases, a sensitivity analysis. Combined, these variables allowed the principal investigators of the feasibility studies to determine break-even volumes and production thresholds. Examples of these studies and other recommended resources are listed in Appendix C.

Based on the break-even analyses conducted in the feasibility studies, the number of animals required for slaughter/processing per year to keep a small regional facility economically viable is between 500 and 1,000 beef equivalents per year for a smaller plant and up to 2,000+ beef equivalents per year to sustain a larger regional facility.[13, 14]

Though informative, these estimates were determined based on a set of variables for specific producer populations from varying locations in the United States, each with a unique set of barriers and opportunities. A broader search of the literature on multi-species meat processing facilities yielded potentially useful economic profitability models that can be applied to any location, including an economic equation for general profitability (in meat-packing for beef, pork, and lamb) presented here in a simplified version.[15]

In this example, profitability (π) equals total revenue generated (TR) minus total costs (TC) and is calculated by the equation:

$$\pi = TR - TC$$

[13] Sleeping Lion Associates, "Slaughterhouse Feasibility Report" (Montpelier VT: *for* Pride of Vermont), 2005. http://www.uvm.edu/~susagctr/Documents/SlaughterhouseFINALREPORT.pdf

[14] Bruce Dunlop, "Capitalization and Operating Financial Estimate for USDA Inspected Livestock Processing in Tuolumne County, California". (Lopez Island Farm, CA: Private report), 2005. http://calaverasgrown.org/wp-content/uploads/2011/12/Tuolumne-County-Report.pdf

[15] E.L. Sweatt, D.N. Peel, and C.E. Ward. 'Estimating Gross margins in Meat Packing for Beef, Pork and Lamb". (Stillwater, OK: Oklahoma State University, Department of Agricultural Economics), 1996 http://www.naiber.org/publications.html

Further broken down, TR= revenue generated (RM) plus revenue from by-products sold (RBY), and TC = cost of the live animal input (CI) and the cost of slaughtering-processing (CP).

$$\pi = \{(RM) + (RBY)\} - \{(CI) + (CP)\}$$

This equation is a useful starting point for a full feasibility study of a WNC facility; it broadly outlines the variables that must be considered in order to approximate the projected profitability of a facility. What is not explicit but subsumed within the variables are additional factors that need to be considered in an exhaustive calculation. Embedded in the variable of costs, for example, are skilled labor, facilities management costs, cost associated with attaining desired attributes (Certified Raised and Handled, American Humane, and Animal Welfare Approved), price, size variations, and the quantity and traits of live fed animals (weights, production attributes and qualities of meat, sex of animals, and seasonality of prices). On the revenue side, the price and quantities of packaged products or primals, price of by-products, and quantity of by-products in existing or newly opened markets must also be included in an exhaustive calculation.

For WNC, one key departure from the equation discussed should be noted: the source of the majority of a regional facility's revenue would likely be fee-from-services, not from products sold by the facility. Though it is possible a new facility might sell small quantities of product to new markets (e.g., by-products or offal), WNC producers producing for local markets sell their own finished meat products and do not rely on facilities to sell them. Producers surveyed primarily sell their meats at farmers markets (53 percent), on-farm stores (42 percent), and directly to restaurants (41 percent).[16] Accordingly, a full feasibility study should use an appropriate variation of the equation when modeling for profitability.

In order to illustrate a possible profitability scenario for a WNC niche meat facility, an estimated per capita consumption of red meats value was calculated based on 2011 red meat production volume data from the USDA National Agricultural Statistics Service,[17] US Census Bureau population data,[18] and production volume data from ASAP's Producer Survey.[19] Estimated per capita annual meat consumption of niche meats by Americans in 2011 was:[20,21]

[16] Appalachian Sustainable Agriculture Project, "ASAP Survey of Large Animal Meat Producers," *Appalachian Sustainable Agriculture Project*," 2012.
[17]United States Department of Agriculture National Agricultural Statistics Service, "Statistics by Subject: Livestock and Animals" nass.usda.gov. Last Modified 2012. http://www.nass.usda.gov/Statistics_by_Subject/index.php?sector=ANIMALS%20&%20PRODUCTS
[18] United States Census Bureau, "State & County QuickFacts," U.S. Department of commerce. Last Modified 2012. http://quickfacts.census.gov/qfd/index.html
[19] See Appendix A.
[20] Estimated per capita meat consumption of niche meats by Americans is calculated as =((Total pounds of species produced in 2011) *(estimated percentage of niche meats))/(Population of United States).
[21] Official estimates of niche meat production in the United States do not exist, therefore this calculation relies on a combination of government and industry estimates. According to a 2011 report published by the USDA the percent of livestock operations that tend to target direct markets is about 1%. However, estimates such as those by Beef.org, and porkretail.org, the percentage of red meats marketed with niche attributes can be as high as 4.4% . Therefore, a range from 1%-4.4% is used to account for uncertainty. Sources for the percentage ranges include: "Small Scale U.S. Cow-calf Operations," *USDA, Animal and Plant Health Inspection Service, Veterinary Services, National Animal Health Monitoring System* April 2011.

- Beef: 1-4lbs
- Pork: 1-3lbs
- Lamb: less than 1/16 lb
- Goat: less than 1/100 lb

For the 23 counties of WNC, with an estimated 2011 population of 1,110,280,[22] this is the equivalent of approximately 735-3,200 cows; 4,000-17,400 hogs; 80-350 sheep; and 30-125 goats. Meat producers from ASAP's Survey of Large Animal Meat Producers alone reported current harvest/sell numbers nearly equal to or far surpassing these quantities:

- 4,984 cattle per year
- 2,291 hogs per year
- 1,085 sheep per year
- 169 goats per year

Using only the sample of the 136 producers who participated in the ASAP survey, local large animal meat producers currently produce more niche meat animals (save hogs) than were consumed on a per capita basis by WNC residents in 2011. Furthermore, production volumes reported by the surveyed large animal producers far surpasses the calculated 500 beef equivalent minimum required to sustain a small regional facility.[23]

Using information from the Bureau of Labor Statistic's annual calculation of average annual consumer expenditures and characteristics data,[24] a conservative estimate of the retail value of locally grown and locally processed large animals for the central mountain region of WNC could range from $5.4 million to $23.6 million.[25]

Michael Melusk, "Niche beef products comprise small share of retail beef sales," *Issues Update research brief.* 2006. http://www.beef.org/uDocs/nichebeefproducts.pdf
Cattlemen's Beef Board & National Cattlemen's Beef Association, "Natural/Organic Share of Total Beef (Dollar) 2nd Quarter 2012," beefretail.org 2012. http://www.beefretail.org/natural-organicshareoftotalbeefdollarandpound.aspx
"A Snapshot of Today's Retail Meat Case: 2010 National Meat Case Study Executive Summary," porkretail.org. 2010. http://www.porkretail.org/filelibrary/Retail/NMCS_execSum100710small.pdf

[22] Ibid.

[23] In a personal communication with one of the authors of the USDA ERS report "Slaughter and Processing Options and Issues for Locally Sourced Meat," author Lauren Gwin confirmed, "a very small plant needs throughput of at least 400 head (beef equivalent) per year to cover its costs." Lauren Gwin, e-mail message to author, September 20, 2012.

[24] Bureau of Labor Statistics, "Table 33. Southern region by income before taxes: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2009-2010," *Bureau of Labor Statistics.* 2011. http://www.bls.gov/cex/2010/CrossTabs/regbyinc/xregns.PDF

[25] Calculated as the annual per capita Southern region spending on beef ($212), pork ($165) and other red meats ($107) = $484 * population of WNC (1,110,280)*(estimated percentage of niche meats 1%-4.4%).

To summarize, given the break-even calculations from existing feasibility studies, demand from local meat buyers, niche meat consumption estimates of WNC residents, and projected and current meat production, the potential for a profitable regional large animal meat processing facility for the central mountains of WNC does exist.

Conclusion

Combined, the results of this study indicate a perceived need for increased large animal processing capacity and market conditions in region to support a new profitable facility. The research also clearly shows that the meat processing business is a competitive industry with multiple economic and cultural variables particular to unique regions. Accordingly, a comprehensive and detailed assessment is required to make a fully informed decision on the development of a facility in the region.

Considerations

The Literature review reveals that it takes smart decision-making and leadership to begin a meat processing business. In a competitive industry where economies of scale make it even more difficult to compete with dominant national processors, excellent marketing and management are necessary. Businesses that start with a marketing focus and then move into the processing business are likely to face fewer roadblocks. In WNC, this may translate into considering whether a facility would open up new buyer markets. For example, a specific buyer interested in purchasing more "locally" produced meat with specific attributes from a regional producer could result in an increase in throughput (i.e. the movement of inputs and outputs through a production process). Another form of new market may involve a strategy for selling non-prime cuts and offal. In addition, being able to find and retain quality skilled employees is necessary but can be difficult due to the seasonality of meat production. Having the recommended level of capital is also a must, especially in the start-up phase. Those businesses that can identify a marketing niche and tailor their offerings to that niche will be more likely to succeed; more so, other aspects of the business such as labor, management, and capital must be carefully planned and executed in order to be economically viable.

Additionally, a full feasibility study should examine closely the match between potential actual production and the demands of buyers. For example, results of the Survey and Interviews used in this study may indicate a gap between what buyers' desire from niche meat products and what regional producers are currently able to provide. Producers indicated that they currently use grass-fed, natural, and pasture raised production standards on their farms; all are attributes without specific guidelines accepted by the USDA. However producers also see a need for increased capacity in Animal Welfare Approved, Humane, Organic, and USDA inspected processing certifications from processing facilities, which are attributes and certifications with specific guidelines. Interviewed buyers (larger scale distributors, wholesalers, and retail grocers who serve the WNC area) stated that the attributes "no added hormones or antibiotics" and "humane treatment" are most important to their meat-buying customers. Insuring that the desires

of buyers (and the market) can be met with local production should be a central question in a full feasibility study.

Finally, the estimated WNC per capita consumption and spending values for niche meat products do indicate that regional demand for niche meat products, combined with current production volumes, is sufficient to attain the profitability thresholds identified in the break even analyses of existing regional processing facility from around the country. However, the break-even estimates are only estimates and require much deeper investigation to ensure that they reflect the reality of the market and economic conditions for WNC.

Recommendations

Conduct a comprehensive feasibility study and business plan. Consider the following for the full study:

- Engage an expert with experience in the meat processing sector to conduct a thorough feasibility study and business plan.
- Identify and consider the pros and cons of a variety of scenarios. Scenarios might include:
    - Enhancing existing area processing facilities
    - Developing a new facility with desired certified attributes
    - Supporting infrastructure for farmers' groups, i.e., in order to foster an increased supply of animals to a new facility
    - Creating new value-added or direct sales markets
- Conduct research into the unique cultural and demographic features of the region's niche meat products market (e.g., are there relatively high education levels or historical preferences for healthy living).
- Address technical feasibility issues: licenses, challenges of specific desired certifications, regulatory compliance for health and safety laws and standards, etc.
- Consider key planning issues such as management tools, economic analyses, and other financial issues identified in similar studies.
- Perform an in-depth Market Analysis and draft a model Business Plan.
    - Prepare detailed market analyses of the economics of the design criteria involved in providing the range of niche meat attributes identified in the survey as most desirable in a facility.
    - Research the literature focused on investing in this sector, including resources suggested in Appendix C.
    - Investigate potential new markets and products
    - Explore wider market potential, particularly if a local buyer serves a broad geographic area in the Southeastern United States.

- Identify priorities specific for the WNC region to include in the business plan and marketing strategy (e.g. projections of revenue and cash flow given regional market trends and finding, training, and retaining quality employees in a seasonal sector).
- Investigate increasing the development and use of environmentally friendly packaging given that the target consumer—the local food consumer—likely has concerns that include reducing "food miles" and package waste and given larger industry trends aimed at reducing packaging and waste.[26]
- Meticulously calculate start-up costs to advise potential investors.
- Explore a variety of potential ownership structures, including producer cooperatives or other producer/owner structures.

[26] K. L. Wolfe, A. Luke-Morgan, J. Daniels, and J. C. McKissick. "Feasibility of a Local Processing Facility in Carroll County, Georgia". (Athens, GA: Center for Agribusiness and Economic development, College of Agricultural and Environmental Sciences, University of Georgia). 2009.

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Appendix A: ASAP Producer Survey Summary

ASAP Survey of Large Animal Meat Producers

Sections of the report included: **Survey Highlights, Survey Results**

Date of Survey: August 13, 2012 to August 27, 2012
Type of Survey: Electronic SurveyMonkey Survey
Response: 101 completed of 136 surveyed (74.3%)

Survey Highlights

- 57.8% of respondents would describe the current availability and accessibility of livestock slaughtering and processing facilities as "very deficient for current demand"

- Nearly half of all survey participants currently slaughter and process their animals at Mays Meats in Taylorsville, NC, or Wells Jenkins Wells in Forest City, NC

- 82% of respondents said they would produce animals for processing at a facility located in the central mountains of WNC. If the new facility could offer 10% lower pricing, respondents estimated that they could increase their production by an average of 37%
    - For a 30% price reduction they would increase production by an average of 50%
    - For a 50% price reduction they would increase production by an average of 73%

- Respondents currently use grass-fed, natural, and pasture raised production standards on their farms and would like to see Animal Welfare Approved, Humane, Organic, and USDA inspected processing certifications from processing facilities

- Survey respondents primarily process their meats into frozen case-ready packages (73.9%), frozen vacuum packaged and boxed subprimals (72.8%), and frozen ground patties (69.2%)
- Survey participants primarily sell their meats at farmers markets, on-farm stores, and directly to restaurants

- When asked which features of a processing facility were most important to them, respondents named good customer service, USDA approved, and convenient location as their top three attributes

- Producers list their top three barriers to expanding production as (1) access to land, (2) costs, and (3) marketing

- When asked which types of meats producers have the most trouble selling, roasts, organ meats, and liver ranked as the top three

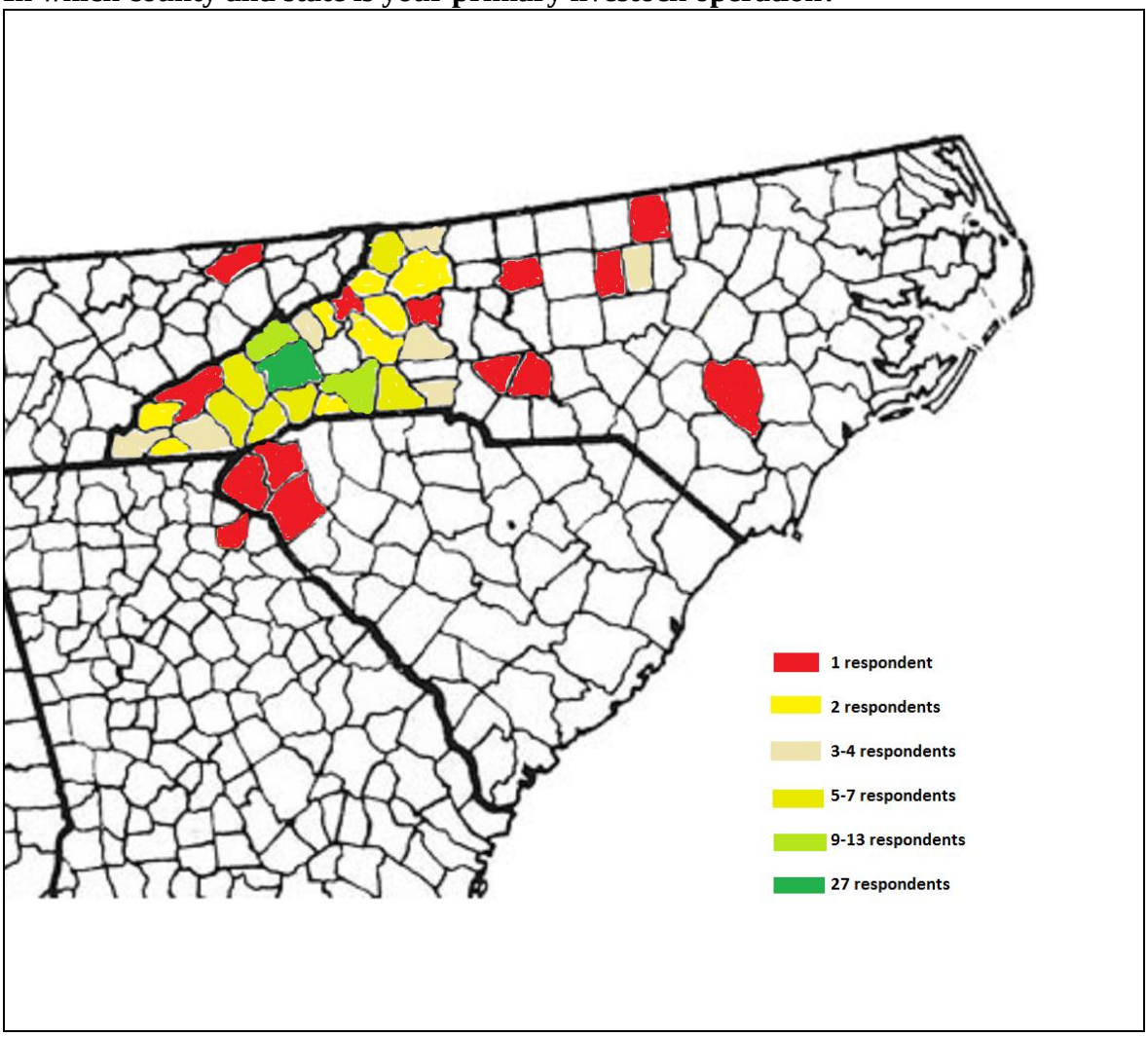
- Survey participants were asked to report their slaughter and processing costs. Their <u>average</u> pricing is as follows:
    - Cattle slaughter $46.18 — Cattle processing $0.55/lb
    - Hog slaughter $43.46 — Hog processing $0.58/lb
    - Sheep slaughter $46.50 — Sheep processing $0.63/lb
    - Goat slaughter $51 — Goat processing $1.20/lb

Survey Results

1. **In which county and state is your primary livestock operation?** (136 responses)

State	County	Total
GA	Franklin	1
NC	Alamance	1
	Alexander	1
	Alleghany	4
	Ashe	7
	Avery	1
	Buncombe	**27**
	Burke	2
	Cabarrus	1
	Caldwell	2
	Catawba	3
	Cherokee	3
	Clay	2
	Cleveland	5
	Forsyth	1
	Gaston	3
	Graham	2
	Haywood	6
	Henderson	5
	Jackson	5
	Macon	3
	Madison	**9**
	Mitchell	2
	Orange	3
	Person	1
	Polk	2
	Rutherford	**13**
	Sampson	1
	Stanly	1
	Swain	1
	Transylvania	7
	Watauga	2
	Wilkes	2
	Yancey	4
North Carolina Total		131
SC	Anderson	1
	Pickens	1
	Oconee	1
TN	Hawkins	1
VA	Smyth	1

In which county and state is your primary livestock operation?

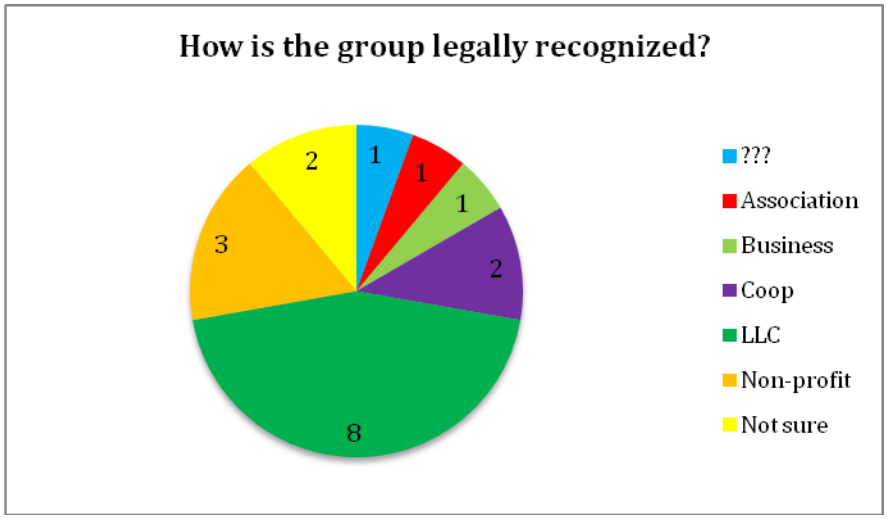


2. **Are you part of a producer group?** (135 responses)

	Response Count	Response Percent
Yes	25	18.5%
No	**110**	**81.5%**

3. **Please tell us about your producer group** (22 responses)

Number of producers in your producer group	
Average	48
Min	1
Max	400
Median	5



4. **Do you currently raise livestock AND arrange for slaughter/processing?** (120 responses)

	Response Count	Response Percent
Yes	**97**	**80.8%**
No	23	19.2%

5. **How would you describe the current availability and accessibility of livestock slaughtering and processing facilities in your area? (check one)** (116 responses)

	Response Count	Response Percent
Very deficient for current demand	**67**	**57.8%**
Slightly below current demand	19	16.4%
Just enough to meet current demand	24	20.7%
Very available and accessible	6	5.2%

6. **If applicable, where are your animals currently slaughtered and processed?** (89 responses)

State	Facilities	Response Count Slaughter	Response Count Processing
GA	Blalock's Meat Processing	3	2
	Chambers Mountain Meats	2	2
	Clayton, GA	1	1
	Welborn's Meat Processing	1	1
	Waldreps Meat Processing, Inc	2	1
NC	Acre Station	1	1
	Caldwell Meat Processing	1	1
	Chaudhry Halal Meat Co.	1	1
	Cruse Meat Processing	1	0
	Henderson County	1	1
	K&B Meat Processing	3	1
	Matkins Meats	3	1
	Mays Meats	**25**	**23**
	J L Mitchell & Son Meat Processing	1	1
	Stiles Farm or King's	1	1
	Thomas Brothers Meat Processing	4	3
	Wells Jenkins Wells	**22**	**20**
SC	Brown Packing	1	1
	SC	1	1
TN	Greenville Tennessee	3	3
	Harris Country Meat	5	6
	Snapps Ferry Packing Co Llc	4	4
	Mantooth Meats	1	1
Other	At home (on farm)	3	1
	Little David's	0	1
	Willis Market	0	1
	Don't know	1	1

7. **Would you produce large animals for processing at a facility located in the central mountains of WNC if the facility offered competitive pricing and services?** (117 responses)

	Response Count	Response Percent
Yes	**96**	**82.1%**
No	21	17.9%

8. How many animals do you currently harvest/sell per year? (107 responses)

	Cattle	Hogs	Sheep	Goats
Average	59	53	47	19
Min	1	2	3	3
Max	2,000	550	200	60
Median	15	25	25	10
Total	**4,984**	**2,291**	**1,085**	**169**

9. How many animals do you harvest in each 3-month period? (88 responses)

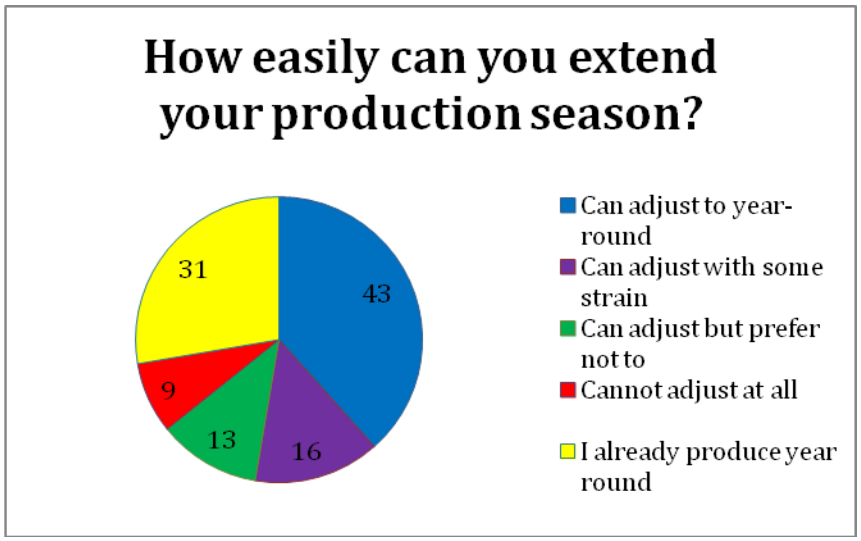
Animal	Quarter	Total	Average	Median[27]
Cattle	Jan-March	416	13	3
	Apr-June	611	13	4
	July-Sept	588	15	5
	Oct-Dec	**912**	**16**	**4**
Hogs	Jan-March	408	17	6
	Apr-June	488	17	9
	July-Sept	455	18	10
	Oct-Dec	516	16	9
Sheep	Jan-March	129	13	8
	Apr-June	233	17	10
	July-Sept	304	22	10
	Oct-Dec	**386**	**23**	**11**
Goats	Jan-March	10	3	2
	Apr-June	7	2	2
	July-Sept	18	5	4
	Oct-Dec	**28**	**6**	**3**

[27] A measure of the median was included to demonstrate the influence of larger-scale producers on the data. A small number of larger producers have skewed this data, and administrators should be aware of consequences should these large producers choose not to patronize a new processing facility.

10. How easily can you adjust your livestock management practices to extend your production season of finished animals? (112 responses)

	Response Count	Response Percent
Can adjust to year-round	**43**	**38.4%**
Can adjust with some strain	16	14.3%
Can adjust but prefer not to	13	11.6%
Cannot adjust at all	9	8.0%
I already produce year round	**31**	**27.7%**

*66.1% of respondents currently or can produce year round



11. Please describe any special PRODUCTION standards used in your operation: (94 responses)

Production Standard	Response Count
Animal welfare approved	2
Antibiotic and Hormone free	7
Beef Quality Assurance	1
Certified BQA Producer	1
free range	3
free range chickens	1
GAP	1
GMO free	1
Grain fed	1
Grain finished	3
Grass and hay fed	1
Grass hay and corn silage fed	1
Grass-fed	**62**
Grass-fed beef	2
Hormone free	2
Humanely raised	2
Loss stress handling	1
Low input	1
Natural	**42**
Non certified MIG	1
Organic	6
Organic practices	4
Pasture raised	**15**
Pasture raised pork	2
Pasture raised poultry	1
Purebred-registered Angus	1
Rotational grazing	4
Whole Foods Step Rating 4	2

12. Please describe any special PROCESSING requirements or certifications you use/desire: (66 responses)

Processing requirement	Response Count
Aged	1
Aged 45 days for beef	1
Aged for 21 days	1
Aged – lightly for lamb	1
Animal Welfare Approved	**8**
Appalachian Grown	1
Controlled 3-4 week hanging for beef carcass	1
Cryovac	1
Farm raised Angus Beef	1
Global animal processing	1
Gourmet cut	1
Humane	**35**
Local grown	1
low stress	1
Natural	3
Non-GMO	1
One pound packages	1
One steak per package	1
Organic	**10**
Skin on pork for curing	1
USDA inspected	**10**
Use hide and horns	1
Vacuum packed	5
value added	1
Whole Foods Certifications	1

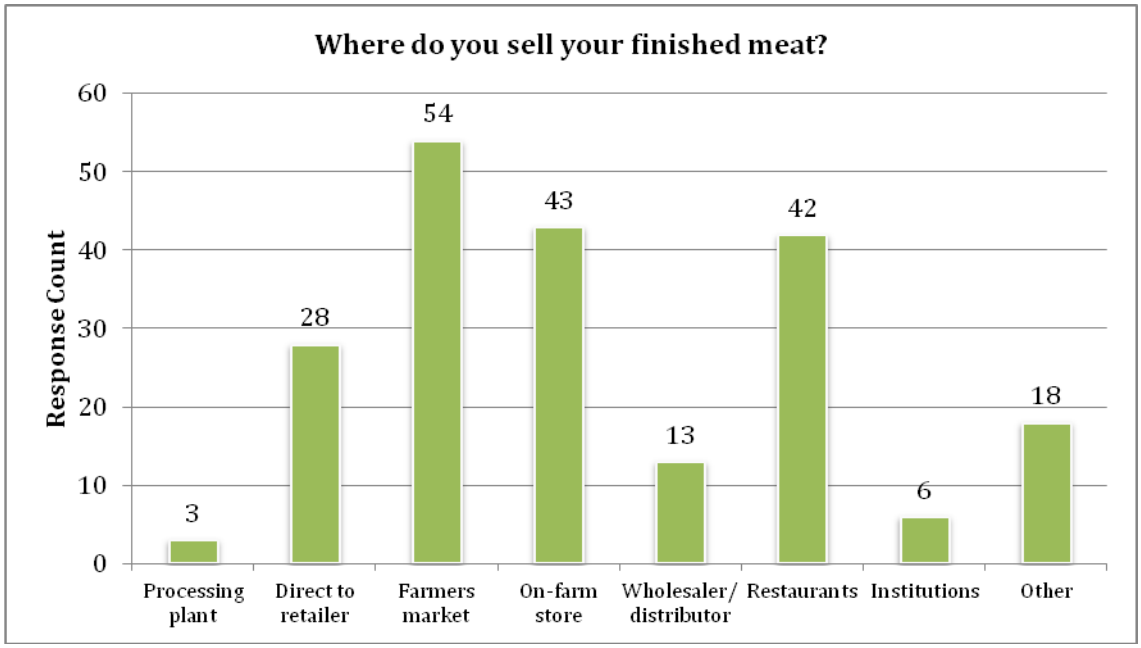
13. Please mark the extent to which you process your meat (99 responses)

	Fresh	Frozen	N/A	Response Count
Whole Carcass	**43.3%**	41.8%	25.4%	67
Vacuum packaged & boxed subprimals	27.2%	**72.8%**	18.5%	81
Case-ready (portioned, individual cuts, & tray packaged)	23.2%	**73.9%**	15.9%	69
Ground into patties	23.1%	**69.2%**	24.6%	65
Cooked Product	14.6%	19.5%	**70.7%**	42
Other	8.7%	8.7%	82.6%	23

13. (continued) “Other” responses included:

Processing Type	Response Count
Andouille	1
Appropriated labeled	1
Bacon	2
Beef fat	1
Bratwurst	**3**
Breakfast sausage	1
Chorizo	1
Cold smoke	1
Cooked product	1
Cryovac packaged	1
Cured	1
Cured ham	2
Dog bones	1
Dry cured meats	1
Dry cured salamis	1
Fat back	1
Fresh	1
Ground pork	1
Heart	1
Hot dogs (natural)	2
Individual cuts	1
Individual portions	1
Italian sausage	2
Kielbasa	1
Link sausages	**3**
Live	**4**
Meal ready portions	1
Middling	1
Ox tails	1
Pate	1
Patties	2
Prosciutto	2
Salami	1
sliced liver	1
Smoked	1
Soap bones	1
Spanish-style dry-aged ham	1
Subprimals	1
Tasso ham	1
Tongue	1

14. Where do you currently sell your finished meat? (81 responses)

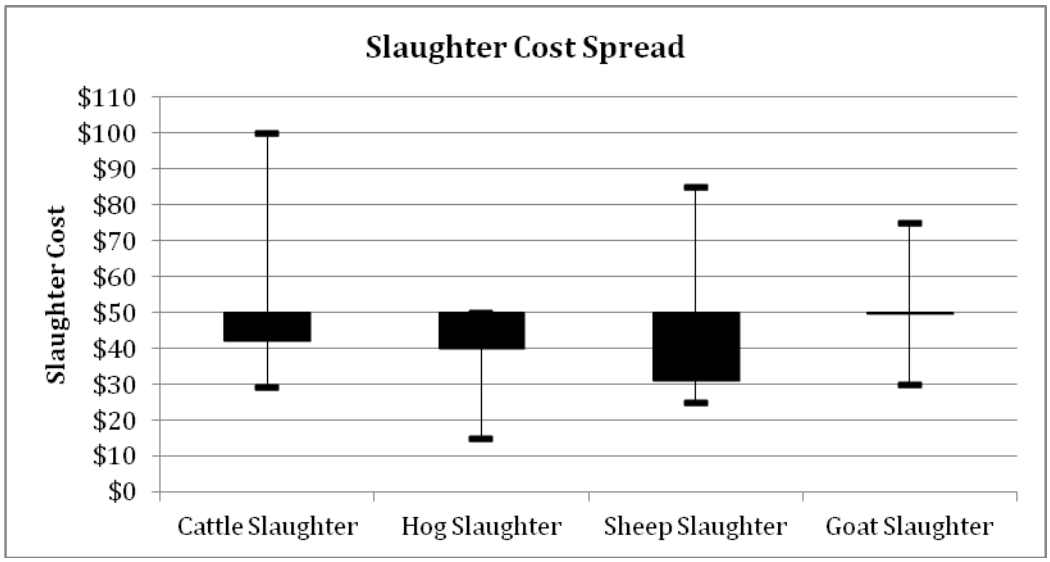


"Other" responses included:

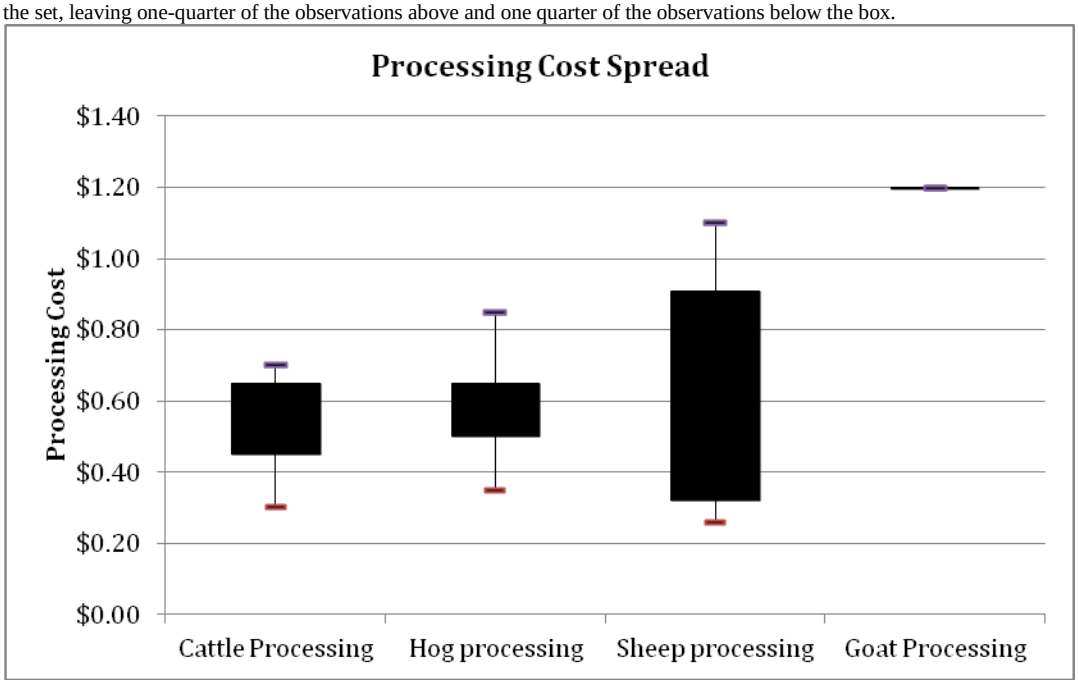
	Response Count
Butcher Shops	1
Buying club	1
Client list	1
Consigned to retailer	1
CSA	2
Direct	1
Direct to customer	**12**
Do not sell finished meat at this time	1
Friends and family	1
Livestock market	1
Mitchell's	1
Own use	3
Private sales	1
Roadside fruit stands	1
Share with neighbors	2
Stock yard	1

15. Please enter the cost of your meat processing in the spaces below for each animal. Enter slaughter cost followed by processing cost (70 responses)

	Cattle	Hog	Sheep	Goat
Slaughter average	$46.18	$43.46	$46.50	$51
Processing average	$0.55	$0.58	$0.63	$1.20
Response Count (slaughter/processing)	*40/42*	*26/27*	*10/6*	*5/1*



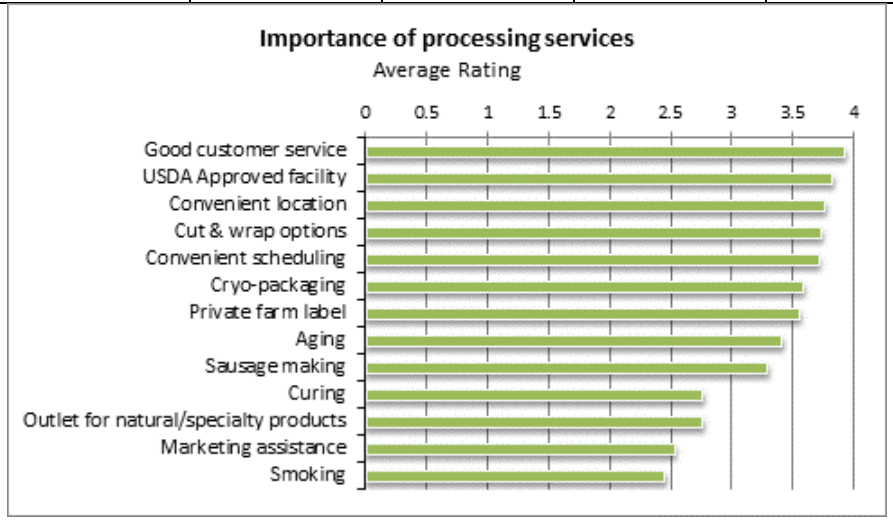
* A box-and-whisker plot is a visual representation of how the data is spread out and how much variation there is . The graphic shows a dataset's maximum and minimum values-- indicated by the "whiskers"—and the "boxes," the central portion of a distribution, calculated as the difference between the third quartile and the first quartile; this range includes about one-half of the observations in the set, leaving one-quarter of the observations above and one quarter of the observations below the box.



16. If/When choosing a processing facility, how important would the following processing services be to you and your business?
(103 responses)

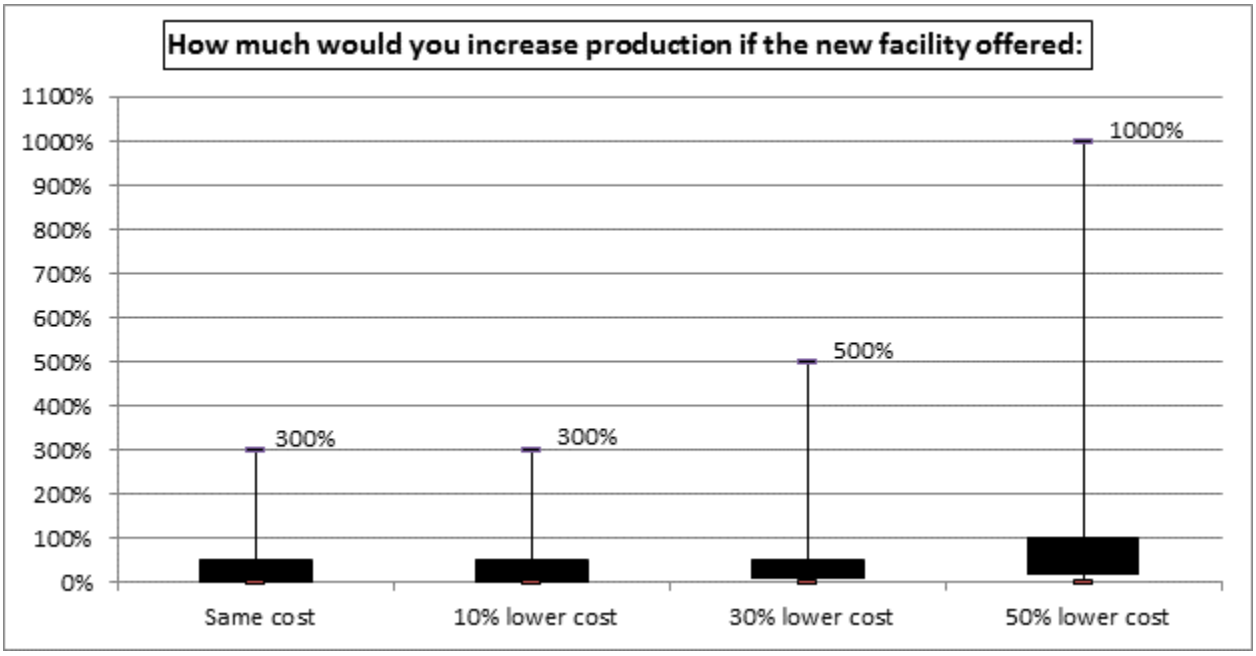
Not important=1 *Relatively unimportant=2* *Moderately important=3* *Very important=4*

	Not important	Relatively unimportant	Moderately important	Very important	Don't know	Rating Average	Response Count
USDA Approved facility	1.0%	3.0%	9.0%	**85.0%**	2.0%	**3.82**	100
Smoking	27.2%	15.2%	**29.3%**	19.6%	8.7%	2.45	92
Curing	18.1%	14.9%	**30.9%**	28.7%	7.4%	2.76	94
Aging	7.2%	7.2%	21.6%	**61.9%**	2.1%	3.41	97
Cryo-packaging	5.4%	4.3%	15.1%	**69.9%**	5.4%	3.58	93
Good customer service	0.0%	0.0%	7.8%	**92.2%**	0.0%	**3.92**	102
Sausage making	12.9%	7.5%	16.1%	**61.3%**	2.2%	3.29	93
Private farm label	4.0%	6.0%	20.0%	**68.0%**	2.0%	3.55	100
Marketing assistance	25.6%	23.3%	18.9%	**28.9%**	3.3%	2.53	90
Cut & wrap options	1.0%	5.0%	14.0%	**79.0%**	1.0%	3.73	100
Outlet for natural/specialty products	21.1%	18.9%	17.8%	**37.8%**	4.4%	2.76	90
Convenient scheduling	1.0%	3.0%	20.0%	**75.0%**	1.0%	3.71	100
Convenient location	1.0%	1.0%	18.6%	**78.4%**	1.0%	**3.76**	102

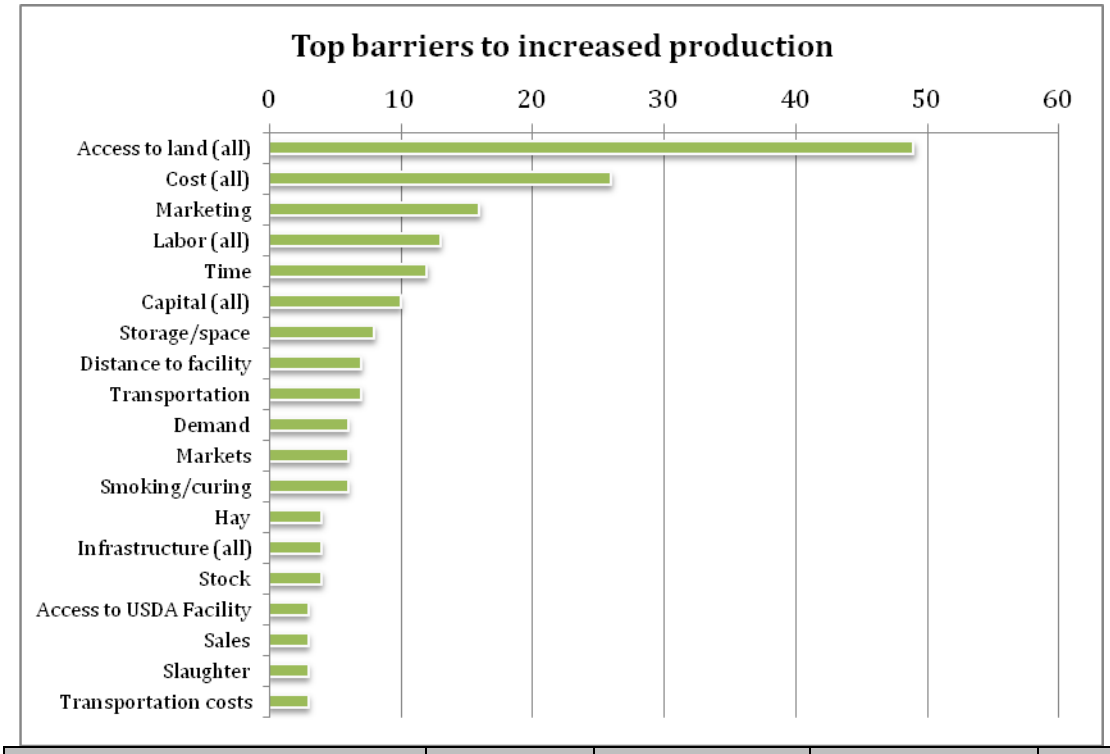


17. If a facility was built in the central WNC mountains that offered improved services at (the same cost, 10% lower, 30% lower, 50% lower) than you currently pay, how much would you increase your total production over your current volume? (90 responses to "same cost;" 86 responses to all other options)

	Same Cost	10% lower	30% lower	50% lower
Average	34%	37%	50%	73%
Max	300%	300%	500%	1,000%
Median	15%	23%	30%	50%



18. What are your TOP 3 barriers to expanding your production in order of importance? (excluding slaughter/processing) (83 responses)

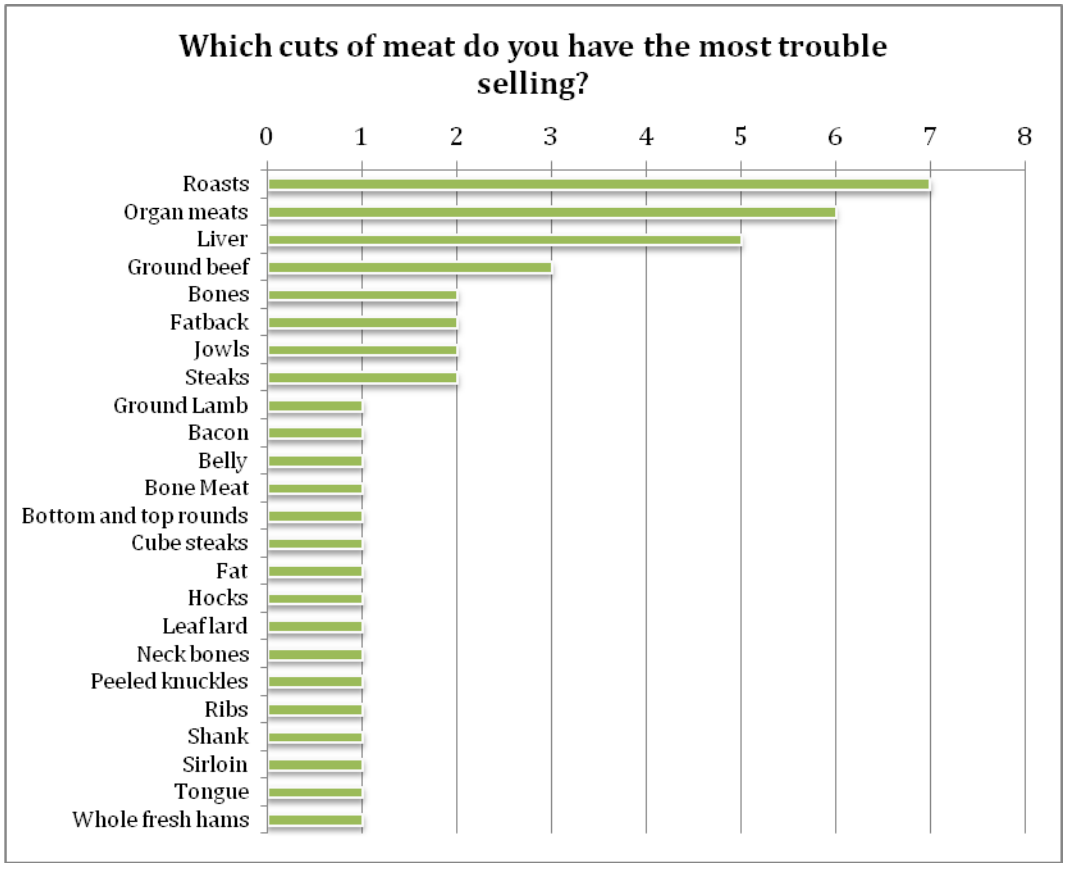


	Top Barrier	Second Barrier	Third Barrier	Total
Acceptable alternative producers	0	0	1	1
Access to capital loans	0	2	0	2
Access to land	**33**	**8**	**7**	**48**
Access to USDA Facility	2	1	0	3
Access to more quality pastureland	1	0	0	1
Availability of locally grown hogs	1	0	0	1
Capital	1	1	4	6
Capital for land	1	0	0	1
capital up front	1	0	0	1
Carrying capacity of land	1	0	0	1
Certifications	0	0	1	1
Closeness and quality of slaughter/processing	1	0	0	1
Competition	0	0	1	1
Cost	2	3	1	6

	Top Barrier	Second Barrier	Third Barrier	Total
Cost of feed	**3**	**6**	**3**	**12**
Cost of inputs	0	3	1	4
Cost of minerals	0	1	0	1
Cost of processing	1	1	0	2
Cost of replacement animals	0	0	1	1
Curing	0	3	0	3
Customer base	2	0	0	2
Demand	2	1	3	6
Distance to facility	3	2	1	6
Enough grass	1	0	0	1
Equipment	0	0	1	1
Facilities	0	0	2	2
Farm Infrastructure	0	1	0	1
Fencing	0	2	0	2
Freezer capacity	0	1	1	2
Hay	0	2	2	4
Infrastructure	1	2	0	3
Labor	**1**	**8**	**2**	**11**
Labor costs	0	0	1	1
Lack of experience	1	0	0	1
Lack of stocker calves raised with sustainable practices	0	1	0	1
Lack of value added services	1	1	0	2
Lamb survivability	0	1	0	1
Location	1	0	0	1
Marketing	**4**	**4**	**8**	**16**
Markets	0	2	2	4
Natural breeding cycle	1	0	0	1
Packing	0	1	0	1
Profitability	0	0	1	1
Proximity to feed mills	0	0	1	1
Quality butchering	1	0	1	2
Sales	1	1	1	3
Slaughter	1	1	1	3
Smoking	3	0	0	3
Space	0	1	1	2
Stock	0	1	0	1
Storage	1	0	3	4
Time	**4**	**4**	**4**	**12**
Transportation	3	2	2	7

	Top Barrier	Second Barrier	Third Barrier	Total
Transportation costs	1	1	1	3
Vendor Service offering	0	0	1	1
Water	0	1	0	1
Weather	0	0	1	1
Workload	0	1	0	1
Year round finishing difficulty	1	0	0	1

19. Which cuts of meats do you have the most trouble selling (if any) and why? (54 responses)



	Why? ***All responses***
Demand	Not as much demand
	Limited customer demand
	Not many people in the area are familiar with lamb/mutton organ meat options
	We can't keep up with demand
Appeal	Liver--few people want it
	Organ meats have a very limited appeal
	Organ meats, not too appealing
Preparation knowledge	Cube steaks. Too thin and tough
	Folks don't know how to cook
	Jowls, hocks, fat, leaf lard No one knows what to do with it
Size/Price	People just don't like to prepare large cuts
	Price
	Total price for a 3 to 5 pound cut may well be a deterrent
	Trying to find people with enough money to buy even a 1/4 beef sometime can be difficult
Other	Bacon is not cured or smoked
	Lower quality steaks (sirloin, tenderized). The market seems to be either low end (ground beef) or high end (tenderloin, ribeye, NY strip)
	Most cuts because of a lack of marketing opportunities
	No curing options

20. Additional comments: (25 responses).

- Additional observations by farmers include:
- A strong desire for a full-service, USDA Approved facility closer to their farm (located in the Central Mountains of WNC)
- A desire to expand current production, but perceived obstacles in the lack of local processing infrastructure
- A desire for more processing options, including cooked product options
- A perceived need for a cooperative or marketing group for niche meat producers
- Lack of understanding/knowledge of consumers on how to prepare and cook niche meat products and/or lack of broad appeal of certain cuts (ex: organs)

Appendix B: ASAP Buyer Interview Summary

Interviews of Larger-Scale Meat Buyers Serving the WNC Area

These interviews were conducted by ASAP (Appalachian Sustainable Agriculture Project) as part of a research project to determine the economic feasibility of large animal processing in Western North Carolina (WNC). The long term outcome of this project is the development and implementation of strategies that will provide local livestock producers with the infrastructure needed to access profitable markets. The purpose of the interviews is to measure current demand and potential demand for local niche meats. The interviews were intended for large scale distributors, wholesalers, and retail grocers who serve the WNC area. For the purposes of the research, niche meats are non-commodity meats with one or more of the following attributes: local, grass-fed/finished, Certified Organic, no hormones/no antibiotics, free range, certified humane, Halal, kosher, pasture raised, etc.

Sections of the report included: **Interview Highlights, Results**

Date of Interviews: September 20, 2012 to October 3, 2012
Type of Interviews: Phone
Response: 4 completed of 9 (44%)

Interview Highlights

- All interviewed buyers currently market niche meat products
- All interviewed buyers expect the volume of niche meats they carry to increase during the next year. They estimate the increase to be between 5% and 30%
    - Buyers specifically expect to see an increase in sales of grass-fed beef
- Interviewed buyers say that the attributes “no added hormones or antibiotics” and “humane treatment” are most important to their meat-buying customers

- On average, interviewed buyers purchase 8.3% of their red meats from producers operating within 100 miles of a store/hub where the product is sold

- The largest concerns interviewed buyers have relating to buying locally raised meats are obtaining sufficient local product supply, the quality of the products, and contracts/company policies

- Interviewed buyers said that some of the more compelling reasons for buying locally raised meats include supporting local farmers and local economies and to find specific specialty products such as meats raised naturally or humanely

- All interviewed buyers were interested in purchasing locally processed artisan meat products

- If a locally raised source of fresh cuts of meat was available, on average interviewed buyers estimated that they would purchase 50% of their volume locally

- If a locally raised source of value added meat products was available, on average interviewed buyers estimated they would purchase 72% locally

Results

21. Type of Business

	Response Count
Retail Grocer	3
Distributor/Wholesaler	1

22. Can individual stores/hubs make meat purchasing decisions?

	Response Count
Yes	1
No	3

a. If so, how much? (ex: percentage)

	Response
Yes	30% - 40%

23. How do you typically obtain non-commodity and/or niche meat products for your business? (Check all that apply)

	Response Count
From a wholesaler or distributor	1
From a company-owned centralized warehouse	4
From a farmer or farmers' cooperative	1
USDA approved processor	1
Currently do not purchase non-commodity and/or niche meat products	0

24. Do you fabricate and pack meats "in-house" or do you require a retail-ready packaging program?

	Response Count
In-House	1
Require a retail-ready packaging	0
Both	2
Neither	1

25. What varieties of meat (not poultry) do you currently market?

	Response Count
Beef	4
Veal	3
Bison	4
Venison	3
Pork	4
Lamb	4
Goat	1

26. Do you currently market any meats with the following types of certifications/designations?

	Response Count
Grass-fed	4
Certified Organic	4
Kosher	4
Halal	3
Pasture Raised	3
Certified Humane	4
Locally Grown	4
Naturally raised	4
Other: Free Range	1

27. What are the approximate volumes of niche meats you market? (lbs per week or lbs per month?)

	Approximate Average lbs/wk	Minimum lbs/wk	Maximum lbs/wk
Beef	1,074	100	2,000
Veal	4,050	100	8,000
Bison	1,300	100	2,500
Pork	1,716	50	5,000
Lamb	100	100	100

*****One respondent gave a total approximation and for all species at 4,000lbs/wk

28. Do you expect the volume of niche meats you sell to increase during the next year?

	Response Count
Yes	4
No	0

a. If yes, what percentage do you expect it to increase?

Average	Minimum	Maximum
14%	5%	30%

b. During the next three years?

	Response Count
Yes	4
No	0

29. (If yes) Which types of niche meats do you expect to sell more of?

	Response Count
Grass-fed beef	4
Bison	1

30. Are there any fresh cuts or types of meat that you want to source locally but currently cannot find an adequate supply? (ex: roasts, steaks, chops)

	Response Count
Yes	2
No	2

31. Which fresh meat cuts are most popular with your customers?

	Response Count
Beef	1
Hamburger	2
Top rounds	1
Ribeye	1
Strip Steak	1
Poultry	1
Pork	1

a. Which fresh meat cuts are least popular?

	Response Count
Lamb	1
Veal	1
Goose necks	1
Organ	1
High end stead	1

32. How important would you say the following attributes are to your customers? Please use the rating scale of 1 to 5 with 1=not important, 5=very important:

	Average	Minimum	Maximum
No added hormones or antibiotics	**4**	3	5
Certified organic	2.25	1	3
Grass-fed	3	2	4
Locally grown	3	2	4
Environmental stewardship	2.25	1	3
Humane treatment	3.75	3	5
Family farmed	3.5	3	5
Free range (non-confined)	2.75	2	3
Pasture raised	3.5	2	5

33. How do you define "local" meats for your customers?

	Response Count
Company region	1
County	1
100 miles	2
Same state	2

34. What percentage of your red meat purchases (beef, pork, lamb, goat) come from producers operating within a 100 mile range of the store the product is sold at?

Average	Minimum	Maximum
8.3%	0.05%	30%

35. If you purchase/sell locally raised meats:

a. How long have you done so?

Average	Minimum	Maximum
4 years	2 years	6 years

b. Where do you purchase these LOCAL products? (e.g. direct from the producer, farmers market, distributor)

	Response Count
From a wholesaler or distributor	1
From a company-owned centralized warehouse	1
From a farmer or farmers' cooperative	2
USDA approved processor	2

36. *Whether or not you are interested,* what would you expect the biggest concerns related to buying locally raised meats to be? Please rate each item below on a scale from 1 to 5 where 1=the issue would not be much of a problem, and 5=the issue would be a significant problem

	Average	Minimum	Maximum
Obtaining sufficient local product supply	**5**	5	5
Coordinating purchase/delivery	3.25	3	4
Quality of food	3.75	3	5
Price	3.5	3	5
Food safety concerns	4.5	3	5
Need for standard packaging/product size	3.25	1	4
Contracts/company policies	3.75	2	5

37. Are there other challenges?

	Response Count
USDA approval	2
Distribution	1

38. If you were to buy locally raised meats, what would you consider to be the most compelling reasons for doing so? Please rate each item below on a scale from 1 to 5 where 1=the reason would not be a motivation, and 5=the reason would be a very strong motivator

	Average	Minimum	Maximum
Supporting local farmers/the local economy	**5**	5	5
Higher quality food	2.75	1	4
Differentiation from competitors	4.25	3	5
Meeting demand from customers for local food	4.25	3	5
Producer practices – naturally/humanely raised	4.5	3	5

39. How interested are you in purchasing locally processed artisan meat products? (ex: Andouille, bacon, kielbasa, sausage, cured ham, chorizo)

	Response Count
Not interested at all	0
Somewhat interested	1
Moderately interested	1
Extremely interested	2

40. All things being equal, if a locally raised source of fresh cuts of meat was available what percentage of your total sales would you purchase locally?

Average	Minimum	Maximum
50%	10%	100%

41. All things being equal, if a locally raised source of value added meat products was available what percentage of your total sales would you purchase locally?

Average	Minimum	Maximum
72%	5%	100%

42. What percentage of all your meat purchases fit into the category of niche meats?

Average	Minimum	Maximum
11%	1%	20%

Appendix C: Additional Resources

General Business Planning

Niche Meat Processors Assistance Network

NMPAN is a national network of University cooperative extension units, state and federal departments of agriculture and health, non-governmental organizations, and livestock producers, processors, marketers, and buyers. NMPAN has the mission of "creating and supporting appropriate-scale meat processing infrastructure for niche meat markets...NMPAN assists processors, producers, buyers, regulators, and others involved in this growing sector by coordinating, distributing, and developing information and resources to improve access to processing infrastructure and the long-term stability of this sector." Accessed October 7, 2012. http://www.nichemeatprocessing.org/

North Carolina NMPAN Affiliates:

Contact information for North Carolina-based NMPAN affiliates. Accessed October 7, 2012. http://www.extension.org/pages/15437/nmpan-affiliates-north-carolina

Regulatory, Inspection and Certification Resources

North Carolina Department of Agriculture and Consumer Services: Meat and Poultry Inspection Division

The NCDA&CS Meat and Poultry Inspection Division is tasked with enforcing the N.C. Compulsory Meat Inspection laws and to ensure that meat and poultry plant products, practices, and conditions comply with the law. Their website contains an abundance of information on the current rules and regulations regarding animal processing in our state, including State of North Carolina inspection guidelines and USDA guidelines for Federal certification. Accessed October 7, 2012. http://www.ncagr.gov/MeatPoultry/packets.htm

Feasibility Studies and Planning Information

North Carolina State University Cooperative Extension (NCSUCE)

North Carolina Cooperative Extension has compiled a library of feasibility studies to help guide those who are considering entering the meat processing business. The studies contained in the library detail the many complications, challenges, and costs of entering the processing industry. Accessed October 7, 2012. http://www.extension.org/pages/27357/meat-processing-feasibility-studies

Niche Meat Processor Assistance Network webinar ((NCSUCE))

DeHaan, K., and C. R Raines. "To Build or Not to Build: Lessons Learned from New Processing Ventures.". Raleigh NC: North Carolina State University Cooperative Extension. 2011. Accessed October 7, 2012. http://www.extension.org/pages/59962/to-build-or-not-to-build:-lessons-learned-from-new-processing-ventures