The University of Georgia

Center for Agribusiness and Economic Development

College of Agricultural and Environmental Sciences

The Feasibility of Operating a Value-Added Hog Processing Facility

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Executive Summary

The purchase of Lee and Davis Meat, Inc., by Tim and Tom Meeks, will result in an economically viable business. There appears to be a sufficient market within a fifty mile radius of the operation and the potential grows exponentially at greater distances.

- Processing live hogs has the potential to generate $397/184 pound carcass as opposed to the $87.50 that would be received for a 250 pound hog sold for slaughter.

- Sausage products account for about one-third of the current business. The new sausage product being proposed by the Meeks would fit in with the current product line.

- Assuming the new sausage product performs as well as the existing sausage products, it is estimated to generate an additional $100,000 annually.

- The business is currently servicing only 37% of the supermarket and grocery store businesses and only 15% of the restaurant business within a fifty mile radius of the operation. This suggests a significant untapped local potential.

- Expand the current sales base to include convenience stores and butcher/meat shops. The business is currently servicing only 18% of all the identified area businesses that would utilize or sell its products within a fifty mile radius.

- It would not be unreasonable to assume that the business could be expanded by 5%-10% by tapping into area businesses and increasing sales among its current customer base.

- The acquisition of Lee and Davis Meat, Inc., appears to be economically feasible based on processing 165 head per week or 8,250 head annually. The largest economic risk to the business will be the hog carcass price. For example, if the carcass price increases 8%, the business becomes unprofitable. Maintaining the current sausage price is also important to the success of the business, if sausage prices drop by 13% the venture becomes unprofitable.
The Feasibility of Operating a Value Added Hog Processing Facility

Introduction

Consolidation and integration in the hog industry has sparked interest in the feasibility of a grower-owned value added hog processing facility and marketing operation. As a result, Tim and Tom Meeks contacted the Center for Agribusiness and Economic Development to investigate the cost and returns to operating such a facility. The general idea is to secure market access and improve farm income and profitability through processing their own hogs and marketing the finished products directly to stores and restaurants. Marketing a high quality sausage and finished cuts on a consistent basis is believed achievable by using top end hogs.

The Meeks are considering the purchase of an existing commercial processing facility near Waycross, Georgia. Given current hog prices and the wholesale to retail price spread, the Meeks family has decided to enter the value-added pork market, and try to capture a larger percentage of the retail pork dollar.

Overview

According to the USDA, Economic Research Service (August 18 Report), pork production has increased and is expected to produce 19.8 billion pounds in 2002. However, the pig crop increase is 1.1 million head below the 1998 level that triggered the fourth quarter slaughter and low prices. Hog prices are expected to average in the mid $30s per cwt. in both 2002 and 2003.

Sluggish global economic conditions in important foreign markets are expected to lower exports by six percent over 2001. In addition, Japan, the largest importer of U.S. pork, has imposed a 25% tariff on imported pork products as a way to protect the domestic market from surging imports, making imported products less attractive than domestic products.

Retail pork prices are anticipated to average $2.68 per pound and decrease slightly in 2003. The wholesale to retail price spread has averaged about $1.84 per pound since 1999 and was estimated at $2.02 per pound in the first quarter of 2002. The wholesale to retail price spread has accounted for about 80% of the total spread and this is expected to increase to 82% in 2002.

Current Business Sales Analysis

Given the facility will now be using an entire carcass instead of purchasing primal cuts in its processing facility, there will be additional products that need to be marketed. For instance, the new business will have ham, steak, and trimmings to sell in addition to the products currently being produced by Lee and Davis Meats, Inc. Conversations with Mr. Quitman Lee, indicated that it would not be practical to grind the high value cuts into sausage products. Table 1 indicates the best method to estimate what could be realized per carcass with the various products that primal cuts.
<table>
<thead>
<tr>
<th>Cut</th>
<th>Five Day Average Price * (Jul 17, 2002)</th>
<th>Four Year Average Price *</th>
<th>Retail Weight</th>
<th>Wholesale $/lb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loin</td>
<td>$82.51</td>
<td>$82.19</td>
<td>33.8 lbs.</td>
<td>$2.43</td>
</tr>
<tr>
<td>Butt</td>
<td>$57.62</td>
<td>$56.67</td>
<td>14.7 lbs.</td>
<td>$3.86</td>
</tr>
<tr>
<td>Picnic</td>
<td>$29.70</td>
<td>$33.47</td>
<td>16.6 lbs.</td>
<td>$2.02</td>
</tr>
<tr>
<td>Side</td>
<td>$104.80</td>
<td>$118.39</td>
<td>34.9 lbs.</td>
<td>$3.39</td>
</tr>
<tr>
<td>Ham</td>
<td>$38.45</td>
<td>$47.78</td>
<td>45.0 lbs.</td>
<td>$1.06</td>
</tr>
<tr>
<td>Belly</td>
<td>$87.95</td>
<td>$56.46</td>
<td>39.0 lbs**</td>
<td>$1.45</td>
</tr>
<tr>
<td>Total</td>
<td>$418.03</td>
<td>$394.96</td>
<td>184</td>
<td>$394.96</td>
</tr>
</tbody>
</table>

*USDA NATIONAL CARLOT PORK REPORT Calculations for a 185 lb Pork Carcass 51-52% lean, 0.80”-0.99” backfat at last rib. Based on FOB Omaha carlot pork prices  ** estimated as no exact figure was available (184 lb carcass minus the know weights)

A live hog is expected to bring an average $35 cwt in 2002, assuming a 245 live weight animal yields a 184 carcass. The value of the hog is increased from $87.50 to $394.96 after being processed. Processing the animal increases its value by 450%.

Marketing

One significant concern is successfully marketing the various products that will be produced by the new operation. Slaughtering and processing the hogs will provide a variety of products that need to be sold. Currently, Lee & Davis Meats, Inc., purchases cuts to use in their processing facility to produce an end product. Introducing a new product line will require additional sales effort and a comparably priced product. Remember, this facility will have to compete with large processors on many of the new products that will be introduced when the facility starts slaughtering its own hogs.

Table 2 presents a breakdown of the company’s 2001-2002 product sales by product category based on fiscal total sales of $1,318,046.07.
Table 2. Lee & Davis Meats Inc. Sales Breakout

<table>
<thead>
<tr>
<th>Product</th>
<th>2001-2001 Sales Breakout</th>
<th>Estimated Dollar Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sausage</td>
<td>32.55%</td>
<td>$429,025</td>
</tr>
<tr>
<td>Small Sausage</td>
<td>9.02%</td>
<td>$118,888</td>
</tr>
<tr>
<td>Large Sausage</td>
<td>8.87%</td>
<td>$116,911</td>
</tr>
<tr>
<td>Vac. Pac. Sausage</td>
<td>7.65%</td>
<td>$100,831</td>
</tr>
<tr>
<td>Family Pack Sausage</td>
<td>7.01%</td>
<td>$92,395</td>
</tr>
<tr>
<td>Bacon</td>
<td>11.88%</td>
<td>$156,584</td>
</tr>
<tr>
<td>Pork Loins</td>
<td>11.37%</td>
<td>$149,862</td>
</tr>
<tr>
<td>Boston Butts</td>
<td>6.12%</td>
<td>$80,664</td>
</tr>
<tr>
<td>Pork Ribs</td>
<td>4.73%</td>
<td>$62,344</td>
</tr>
<tr>
<td>Loins</td>
<td>4.28%</td>
<td>$56,412</td>
</tr>
<tr>
<td>Meat Packages</td>
<td>4.00%</td>
<td>$52,722</td>
</tr>
<tr>
<td>Other</td>
<td>25.07%</td>
<td>$330,434</td>
</tr>
</tbody>
</table>

Each of the four sausage categories generates approximately $100,000 in annual sales, it is reasonable to assume that the new smoked country sausage product will generate approximately $100,000 annually. Table 3 provides a 2003 revenue estimate based on a five percent increase in sales of the existing product line combined with the introduction of the new smoked country sausage linked product.
Table 3. Lee & Davis Meats Inc. Sales Breakout

<table>
<thead>
<tr>
<th>Product</th>
<th>‘02 FY Estimated Revenue</th>
<th>‘03 FY Estimated Revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sausage</td>
<td>$429,025</td>
<td>$450,476</td>
</tr>
<tr>
<td>Small Sausage</td>
<td>$118,888</td>
<td>$124,832</td>
</tr>
<tr>
<td>Large Sausage</td>
<td>$116,911</td>
<td>$122,757</td>
</tr>
<tr>
<td>Vac. Pac. Sausage</td>
<td>$100,831</td>
<td>$105,873</td>
</tr>
<tr>
<td>Family Pack Sausage</td>
<td>$92,395</td>
<td>$97,015</td>
</tr>
<tr>
<td>smoked country sausage</td>
<td>Not Available</td>
<td>$100,000</td>
</tr>
<tr>
<td>Bacon</td>
<td>$156,584</td>
<td>$164,413</td>
</tr>
<tr>
<td>Pork Loins</td>
<td>$149,862</td>
<td>$157,355</td>
</tr>
<tr>
<td>Boston Butts</td>
<td>$80,664</td>
<td>$84,697</td>
</tr>
<tr>
<td>Pork Ribs</td>
<td>$62,344</td>
<td>$65,461</td>
</tr>
<tr>
<td>Loins</td>
<td>$56,412</td>
<td>$59,233</td>
</tr>
<tr>
<td>Meat Packages</td>
<td>$52,722</td>
<td>$55,358</td>
</tr>
<tr>
<td>Other</td>
<td>$330,434</td>
<td>$346,956</td>
</tr>
<tr>
<td>Total</td>
<td>$1,318,046.07</td>
<td>$1,483,950</td>
</tr>
</tbody>
</table>

* Estimate is based on a 5% increase in sales over FY ‘02 and the introduction of new product.

Assuming that each category grows at 5% in 2003, and the new product experiences sales of $100,000, Lee and Davis Meats, Inc., can be expected to generate roughly 1.5 million dollars in total sales. It is important to remember that Lee and Davis Meats, Inc., will have additional products to sell as a result of killing their own hogs. These product prices are not included in this analysis because the availability of the additional products is unknown due to raw product requirements for producing the final processed products listed in Table 3.

To achieve the increase in sales, the company can increase sales among current users or establish new accounts. To determine where to look for new accounts it is important to evaluate current sales outlets to determine where the product is currently being sold. Table 4 provides a breakdown of Lee and Davis Meats, Inc. customer list. The data was taken from the Lee and Davis Meats, Inc. customer phone list.
Table 4. Current Customer List Analysis

<table>
<thead>
<tr>
<th>Outlet</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery/Supermarket</td>
<td>85</td>
<td>44%</td>
</tr>
<tr>
<td>Restaurant</td>
<td>69</td>
<td>36%</td>
</tr>
<tr>
<td>Convenience Store</td>
<td>18</td>
<td>9%</td>
</tr>
<tr>
<td>Butcher/Meat shop</td>
<td>11</td>
<td>6%</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>193</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

An analysis of grocery store, restaurants, convenience stores, and meat and butcher shops within 50 miles of the establishment reveals that there is significant untapped potential. Table 5 presents the estimated number of establishments that are not currently being served by Lee and Davis Meats, Inc.

Table 5. Current Customer List Analysis

<table>
<thead>
<tr>
<th>Outlet</th>
<th>Current Number</th>
<th>Estimated Total Number</th>
<th>Untapped Potential</th>
<th>Percent Servicing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grocery/Supermarket</td>
<td>85</td>
<td>228</td>
<td>143</td>
<td>37%</td>
</tr>
<tr>
<td>Restaurant</td>
<td>69</td>
<td>464</td>
<td>395</td>
<td>15%</td>
</tr>
<tr>
<td>Convenience Store</td>
<td>18</td>
<td>304</td>
<td>286</td>
<td>6%</td>
</tr>
<tr>
<td>Butcher/Meat shop</td>
<td>11</td>
<td>14</td>
<td>3</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>183</strong></td>
<td><strong>1010</strong></td>
<td><strong>827</strong></td>
<td><strong>18%</strong></td>
</tr>
</tbody>
</table>

Based on the number of potential establishments that are not currently being serviced by Lee and Davis Meats, Inc., there appears to be opportunity to expand the business. Again, this analysis does not take into account whether the establishments have been previously contacted and eliminated as potential customers. The restaurant analysis is based on all types of restaurants but cannot distinguish among those that serve pork products.
Target Market

It is important to understand the pork consumer too determine which establishments would be more likely to purchase and move quantities of pork products. Fortunately, the National Pork Producers Council conducted an in-depth segmentation study and classified pork consumers into five distinct segments and they are as follows:\(^1\):

- **Main Street Today**
- **Quality Carnivores**
- **Good N’ Plenty Guys**
- **Apathetic Eaters**
- **Politically Correct Eaters**

These survey results provide an indication of who is eating pork products. It may be possible to target establishments based on their customer base. The segmentation analysis indicates that only three of the five segments (in bold) appear to be viable markets. The three consumer segments differ considerably in their demographic composition and eating patterns. Therefore, each segment should be targeted separately. Each segment is discussed in detail below:

1. **Main Street Today** represents the largest segment of the population and consist of strong pork supporters. These individuals are generally very price sensitive and cost conscious shoppers. Their purchasing decisions are based on product prices more than product preference. This segment can be generalized as follows:

- Women (57%)
- Middle aged with a significant percentage (20%) being 50-59 years of age
- Lowest income $31,000 median household income
- Least educated – less than 10% have college degrees
- Blue collar occupations
- 19% widowed/divorced (more than the other five segments)
- Average household size
- Most non-white group (29% are African American or Hispanic)

\(^1\) 1995 National Pork Producer Council Pork Segmentation Study
This segment is price sensitive and the market needs to be positioned as offering fresh quality products at a competitive price.

2. Quality Carnivores are males who love family and fine dining restaurants. These individuals are not concerned with nutrition, indulge in food and prefer premium cuts of meat. This segment can be generalized as follows:

- Males (77%)
- On average 36 years old
- Not primary shoppers
- High incomes ($48,500 household incomes)
- Have some college (62%) or a college degree (26%)
- Married (66%)
- On average is non-white
- Smaller households

The Quality Carnivore segment should be targeted by positioning the Market as offering “fresh,” quality premium cuts of meat. The Quality Carnivores are less price sensitive than the Main Street Today segment and therefore willing to pay more for quality products. So in addition to promoting the Market’s products as “fresh,” it will need to emphasize quality rather than price.

3. Good N’ Plenty Guys is the segment of the population that frequent fast food and take-out restaurants and are meat lovers. They are the second most responsive of the three groups of pork behind the Main Street Today segment. The Good N’ Plenty group can be generalized as follows:

- Mainly male
- Young (49% of the segment is under 35 years of age)
- $38,000 median household income
- 45% have some college
- Employed- split between blue and white color
- 61% were married
- Have large households 47% have 4+ family members
- Primarily non-white
The segment of Good N’ Plenty Guys, could be targeted for selling “fast food” products at lunch and possibly breakfast. The market should consider preparing and selling breakfast and lunch items (sausage biscuits, ham biscuits, barbeque, and/or deli sandwiches) through both a walk-up counter and drive-thru window. Besides capturing the otherwise lost breakfast and lunch expenditures, this would create additional publicity for the fresh market and help increase traffic and market visibility.

In a recent survey published in the June issue of The Public Pulse, it was found that price and the restaurant’s location, not the food, were the factors that have the most influence on fast food restaurant selection. If the fresh market plans to have a drive-thru window to service lunch and or breakfast customers, these “fast food” location and price concerns should be taken into consideration.

**Target Market Conclusion**

There appears to be three very distinctive consumer segments for fresh pork products. However, each group appears to demand different products and services and may patron different establishments.

Based on the segmentation results and a detailed meeting with another “butcher shop” owner, it appears the Main Street Today segment will be the primary consumer base for Lee and Davis Meats, Inc. To target this segment, it will be important to identify retail and restaurant businesses that service this segment of the population as they consume the most pork on a per capita basis.

The Quality Carnivore is a good secondary market. These consumers value quality meat products and are willing to pay for quality. To appeal to this segment, the market needs to package and promote their products in a manner that will satisfy this consumer segments concern with quality. More than half of the meals bought in restaurants are eaten at home (51% compared to 41% a decade ago), and of these, only 2.1% come from fine restaurants (source: National Public Diary Project's Harry Balzer, in a story by the Dallas Morning News). By offering quality eat at home meals through various food retail outlets, the Lee and Davis Meats, Inc., could tap into the Quality Carnivore segment. To target this group the products should be of higher quality than competing products currently available at food retail. The products need to indicate a superior product with regard to quality and freshness.

The Good N’ Plenty consumer can best be reached via fast food restaurants. To reach this market, convenience stores and other non-chain fast food establishments could be targeted. The establishments might serve a breakfast menu or even carry the products in their coolers.
Estimated Cost and Returns

Sufficient data was found to adequately assess the likely cost and returns of the operation. Georgia wage and tax rates were used to estimate appropriate labor and benefit cost. The yearly ownership cost was determined by applying standard interest and depreciation rates to the capital cost of the plant. The objective was to determine the yearly cost and returns for a value added hog processing facility in south Georgia.

Cost Comparison Summary

The capital costs required for start-up were determined by the purchase price of an existing facility and new equipment needed to run the facility using hog carcasses. The capital costs are summarized in Table 6. Capital was broken up into building/land, plant equipment, and working capital. The working capital was determined as two months of total annual working capital required during an average year. This figure include the purchase of the slaughtered hogs to be used to create the finished products.

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Value Added Hog Processing Facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building/Land</td>
<td>$400,000</td>
</tr>
<tr>
<td>Equipment</td>
<td>$230,250</td>
</tr>
<tr>
<td>Working Capital</td>
<td>$189,496</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td><strong>$819,746</strong></td>
</tr>
</tbody>
</table>

Total capital cost required to start the operation is $819,746. This includes enough working capital to run the facility for a short time period without sales.

The average annual cost of operating a facility of this nature is seen in Table 7. The largest expenditure is the purchase of slaughtered hog for processing. These hogs belong to the owners of the processing facility, however some are killed off the premise for cost and time efficiency. The custom kill and dress rate is $20 per head with a $5 delivery fee per head. The purchase price of the hogs is $100 per head. Included in the direct cost is the purchasing of other products to be used or sold by the facility. The other cost of operating the facility are also seen in Table 7.
Table 7. Average Annual Operating Cost

<table>
<thead>
<tr>
<th>Cost Category</th>
<th>Annual Average Cost</th>
<th>Per Head Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Cost (Hogs and other Products)</td>
<td>$1,431,250</td>
<td>$175</td>
</tr>
<tr>
<td>Labor Cost</td>
<td>$297,500</td>
<td>$36</td>
</tr>
<tr>
<td>Variable Cost</td>
<td>$139,913</td>
<td>$17</td>
</tr>
<tr>
<td>Fixed Cost</td>
<td>$161,430</td>
<td>$19</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$2,030,092</td>
<td>$246</td>
</tr>
</tbody>
</table>

Returns to Processing

To determine the potential returns to creating sausage and other products from top end hogs, the average sales prices per product should be $1.35 per pound. The hogs were believed to have an average live weight of 245 pounds and dress at the industry average of 75%, yielding 184 pound carcass. Using the National Pork Producer Council carcass breakdown percentages, the six primal cuts weights were determined. This enabled the prices to be attached to the different primal cuts and products.

Table 8. Income to Processing

<table>
<thead>
<tr>
<th>Income</th>
<th>Pounds</th>
<th>Total Value</th>
<th>$ Per Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sausage</td>
<td>656,000</td>
<td>$1,174,240</td>
<td>$142.33</td>
</tr>
<tr>
<td>Pork Loin</td>
<td>278,326</td>
<td>$389,656</td>
<td>$47.23</td>
</tr>
<tr>
<td>Ribs</td>
<td>128,278</td>
<td>$192,372</td>
<td>$23.32</td>
</tr>
<tr>
<td>Ears</td>
<td>8,250</td>
<td>$3,300</td>
<td>$.40</td>
</tr>
<tr>
<td>Boston Butt</td>
<td>98,013</td>
<td>$89,738</td>
<td>$10.88</td>
</tr>
<tr>
<td>Feet, hocks</td>
<td>16,500</td>
<td>$6,600</td>
<td>$.80</td>
</tr>
<tr>
<td>Other Products</td>
<td>NA</td>
<td>$330,000</td>
<td>$40.00</td>
</tr>
<tr>
<td><strong>Total Income</strong></td>
<td><strong>1,185,937</strong></td>
<td><strong>$2,185,906</strong></td>
<td><strong>$265</strong></td>
</tr>
</tbody>
</table>
Table 9. Returns to Value Added Processing Facility

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>$ Per Head</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td>$2,185,906</td>
<td>$265</td>
</tr>
<tr>
<td>Total Cost</td>
<td>$2,030,092</td>
<td>$246</td>
</tr>
<tr>
<td>Returns</td>
<td>$155,813</td>
<td>$19</td>
</tr>
</tbody>
</table>

Sensitivity of a Value Added Hog Processing Facility to Changes in Cost and Price

If the cost and return estimates are indicative of the actual cost and returns encountered by a hog processing facility, the potential for total plant profitability is encouraging. Some gains in efficiency would hopefully be realized over time with experience. Purchasing of an existing facility includes an entry into the markets which allow for relatively quick relationship to begin and assist in sales of the products.

Figures 1 attempts to reveal how a reduction or increase in the budgeted cost affects profitability. An increase in budgeted cost of 7% would lead to a pure breakeven and no profits to the processing facility.

Figure 1. Profit vs. Change in Budgeted Cost
Figures 2 - 5 illustrate how a change in sales price affects the profitability of the facility. The four finished products with the largest percentage of sales had their sales prices modified by 5% intervals to assess risk related to profit with a price change. This also provides the impact of each precut on the total income. If sausage price approach $1.52 the facility becomes unprofitable.

**Figure 2.** Profit vs. Change in Sales Price, Sausage

![Figure 2](image1.png)

**Figure 3.** Profit vs. Change in Sales Price, Loins

![Figure 3](image2.png)

**Figure 4.** Profit vs. Change in Sales Price, Ribs

![Figure 4](image3.png)

**Figure 5.** Profit vs. Change in Sales Price, Other Products

![Figure 5](image4.png)
Figure 6 exhibits how a change in the direct cost paid for the hogs affects profit. If the facility had to purchase the hogs for $118 per head it would be unprofitable.

**Figure 6.** Profit vs. Change in Direct Cost

The study was conducted using what is believed to be conservative cost and return estimates. The working capital required to purchase hogs in the beginning can significantly determine the final outcome of the facility. If sales are slow or non-existing at the beginning the budgeted working capital may not be sufficient.

**Business Structure**

A business may be conducted through a variety of organizational structures. An attorney, accountant, financial advisor, tax advisor, or banker, may help you decide which form would be most suitable. One of the primary considerations in selecting a business organization is protection of a business owner from liability. Also to be considered is the transferability of ownership rights, the ability to continue as a business in the event of the death or withdrawal of one or more of the owners, the capital needs of the business, and tax liabilities.

**Note:** Legal requirements are determined by the business structure selected. The statutes are very specific on the regulations required as you set up your business structure. The Corporations Division of the Georgia Secretary of State, has information and literature that can help determine the best structure for you. You can visit their web site at http://www.sos.state.ga.us/corporations/. Ultimately, however, legal counsel or the assistance of a professional accountant may be needed.
The most common business structures are:

**Sole Proprietorship** - The single owner of the business is a sole proprietor. The single owner has sole control and responsibility. The sole proprietorship is easily formed, allows important decisions to be made quickly, and may enjoy fewer legal restrictions.

The sole proprietor’s responsibilities include:

- Procuring all capital.
- Personal liability for all claims against the business.
- Showing business profits as part of the owner’s individual taxable income.
- Obtaining local business licenses.
- Registering the name of the business when using a trade name in the county where it will transact a majority of its business.

**General Partnership** - A partnership is an association of two or more people acting as co-owners of a business for profit. A partnership can be created by an oral or written contract between the individuals. It is wise to have an attorney draw up a partnership agreement specifying rights and obligations of the partners. Almost any management and profitsharing agreement can be arranged.

A general partnership requires no official registration beyond that required for a sole proprietorship. It extends liability to the personal assets of the business partners. It is required to file those germane to all business entities such as a business license, trade name registration, proper permits and the like. Shares its profits and losses among the partners. Each partner is then taxed at personal income tax rates.

**Limited Partnership** - Limited partnerships are more closely regulated than general partnerships, permitting investors to become silent or limited partners without assuming unlimited liability. There must be at least one general partner who manages the business with one or more limited partners whose liability is limited to the extent of their investment.

In a limited partnership:

- General partners share full liability.
- Limited partners may take no part in running the business.
• The limited partnership must register with the Georgia Secretary of State Corporations Division. However, they do not have the requirements of filings, publications, or record maintenance of corporations.

**Business Corporation** - A corporation is a more complex form of business organization. A corporation is a legal entity and exists apart from its owners or shareholders. As a separate entity, it has its own rights, privileges, and liabilities apart from the individuals.

A corporation:

• Must file its Articles of Incorporation with the Corporations Division of the Georgia Secretary of State.
• May be formed for profit or for nonprofit purposes.
• It has limited liability.
• The liability of shareholders (or owners) to creditors is ordinarily limited to the amount of each shareholder’s capital stock investment.
• Is unaffected in its continuity by death or transfer of shares by any of the owners.
• Requires more extensive record keeping.
• Pays taxes on its profits.
• Taxes on dividends are paid by its shareholders.

**S Corporation** - The S Corporation combines parts of the corporate and partnership forms of business organization. The Internal Revenue Code permits a privately held corporation, one with up to 35 shareholders, to avoid corporate taxation by having each shareholder report the share of corporate income on his or her individual income tax return.

The S Corporation:

• Generally does not pay tax itself. However, there are two situations which may result in tax to the corporation:
  1. Excess net passive income
  2. Tax on certain capital gains
• Remains a corporation in the view of the state and complies with state corporation regulations.
• Must have only one class of stock.
• Uses a calendar tax year or shows a business purpose for adopting a fiscal year.
• Must have the consent of all shareholders to having S Corporation status.
• Must be made up of shareholders that are individuals, estates, or trusts, but not corporations.
• Can only have shareholders that are United States citizens or residents.
• Cannot be a member of an affiliated group of corporations. Also ineligible are most financial institutions, insurance companies, and domestic international sales corporations. See IRS regulations for more information.
• Prohibits certain types of income and business activities.

**Limited Liability Company** - The Limited Liability Company (LLC) combines many favorable characteristics of corporations, and limited and general partnerships. The LLC provides limited liability to its members and offers them the same favorable IRS tax treatment enjoyed by partners in general and limited partnerships.

A Limited Liability Company:

• Must file “Articles of Organization” with the Corporations Division of the Secretary of State.
• Allows members to manage the company themselves or to elect managers.
• Allows members to engage in management without risk of losing their limited liability status.
• Follows simple registration and annual reporting requirements similar to those of corporations and limited partnerships.
• May be taxed by the IRS as either a corporation or as a partnership, depending on its structure.

**Impact Analysis**

Impact analysis is a key component of any feasibility study. This impact analysis indicates the effect of an existing venture on the economy. A sausage manufacturing facility in Georgia impacts the economy on two levels. The facility generates output as it manufactures sausage. These sales, in turn, generate additional sales as the plant purchases inputs. The suppliers to the plant increase the purchase of their inputs, thus increasing demand for those items. These increased sales ripple through the economy. An input-output model will capture and quantify these effects.
The input-output model, IMPLAN (Impact Analysis for PLANning, Minnesota IMPLAN Group) was utilized for this project. IMPLAN can predict the effects of an existing venture on output (sales), employment and tax revenue. IMPLAN models can be constructed for a state, a region or a county. Input-output models work by separating the economy into its various sectors, such as agriculture, construction, manufacturing and so on. An IMPLAN model will show each sector and industry in the specific region's economy. The model can capture how a change in one industry (for example, sausage manufacturing) will change output and employment in other industries. The changes in the initial industry (sausage manufacturing) are labeled direct effects and the changes in the other industries are called indirect effects. The direct and indirect effects are summed to give the total economic impact.

For the purpose of this impact analysis, we focused on the existing facility scenario. However, before examining the economic impact of this plant, the issue of production should be addressed. In many cases, the production of an existing manufacturing facility provides an increased market for a product. Thus, it would be remiss not to include the value of production in the analysis of the economic impact.

The direct value of the production of 8,250 head of hogs is $825,000. This leads to a total economic impact of $1,314,117 million. Production of this number of hogs employs 15 people. Another 6 jobs are created as a result of spending by the industry. Thus, total employment attributable to sausage manufacturing is 21 jobs. Sausage manufacturing also increases tax revenues by $68,370 under this scenario, as shown in Table 10.

The sausage manufacturing plant will have sales of $2,185,906. It will employ 13 people. Table 11 indicates that sales from the plant increase economic activity by $1,937,866 bringing the true total state impact of the plant to $4,123,772. In addition to the 13 jobs at the plant, another 19 workers in Georgia are employed due to this plant. Finally, the plant increases state and local tax revenue by $152,556.

### Table 10. Impacts of Sausage Production for an Existing Manufacturing Facility

<table>
<thead>
<tr>
<th></th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$825,000</td>
<td>$489,116</td>
<td>$1,314,117</td>
</tr>
<tr>
<td>Employment</td>
<td>15</td>
<td>6</td>
<td>21</td>
</tr>
<tr>
<td>Tax Revenue (State)</td>
<td>NA</td>
<td>NA</td>
<td>$68,370</td>
</tr>
</tbody>
</table>
Table 11. Impacts of an Existing Sausage Manufacturing Facility

<table>
<thead>
<tr>
<th></th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$2,185,906</td>
<td>$1,937,866</td>
<td>$4,123,772</td>
</tr>
<tr>
<td>Employment</td>
<td>13</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>Tax Revenue (State)</td>
<td>NA</td>
<td>NA</td>
<td>$152,556</td>
</tr>
</tbody>
</table>

Conclusion

The acquisition of Lee and Davis Meat, Inc., appears to be economically feasible based on processing 165 head per week or 8,250 head annually. The largest economic risk to the business will be the hog carcass price. For example, if the carcass price increases 8%, the business becomes unprofitable. Maintaining the current sausage price is also important to the success of the business, if sausage prices drop by 13% the venture becomes unprofitable.

Since the business will be processing whole carcasses instead of purchasing specific primal cuts, there will be additional products that need to be marketed. The business is currently only servicing a fraction of the areas possible market outlets, an estimated 18%. Given the vast opportunity among untapped businesses, it is not unrealistic to assume that the business could increase its sales revenue by 5% or more as well as move the new products being produced. It is estimated that the new sausage product would generate approximately $100,000 annually.
The Center for Agribusiness & Economic Development

The Center for Agribusiness and Economic Development is a unit of the College of Agricultural and Environmental Sciences of the University of Georgia, combining the missions of research and extension. The Center has among its objectives:

To provide feasibility and other short term studies for current or potential Georgia agribusiness firms and/or emerging food and fiber industries.

To provide agricultural, natural resource, and demographic data for private and public decision makers.

To find out more, visit our Web site at:  http://www.caed.uga.edu

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J. Scott Angle, Dean and Director