



Agricultural Economic Development Projects

Financial Feasibility

June 2015

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Executive Summary

Steuben County embarked on the farmland planning process with the priority of developing a strategic set of recommendations and projects that would identify new opportunities for farmers, support existing farmers as they grow and expand their businesses, and capitalize on new and emerging markets.

As a compliment to the 2015 Agricultural and Farmland Protection Plan, the Steuben County Industrial Development Agency received funding from the Appalachian Regional Commission to develop an economic development strategy that identifies potential agricultural-based economic development projects which support the County's vision to sustain and grow the agricultural economy.

The Southern Tier Regional Economic Development Council's (STREDC) Strategic Plan identifies agriculture as a catalyst for the region's economy because of the industry's potential to expand in size, technological infrastructure, and the region's accessibility to major markets and innovation in agricultural research. The projects identified in this plan closely align with the STREDC's strategy, which will help the County be competitive for state and regional funding.

Approximately seven initial projects were identified through the research and data conducted in support of the State of the Steuben County Agricultural Economy report, and through stakeholder interviews with local farmers, the Farm Bureau, and Cornell Cooperative Extension, among others. These projects included a malt house, USDA slaughterhouse, regional food hub, whey processing facility, vodka distillery, dog food processing facility, and equestrian event facility.

Preliminary research into the employment impact of these projects, as well as the types of projects that have received funding through the NYS Consolidated Funding Application (CFA) and the United States Department of Agriculture (USDA), contributed to the process of identifying projects for further analysis.

Ultimately, four projects were identified based on their ability to support existing farmers and potential to support and create new economic opportunities. An in-depth financial feasibility analysis was conducted for each of the projects identified below:

- Local Food Enterprise Center with a Commercial Kitchen
- Craft Malt House
- Craft Potato Vodka Distillery
- USDA Slaughterhouse & Processing Center

The goal of this feasibility analysis is to assess the likelihood of success for these projects, determine the potential number of jobs associated with each project, and analyze the impacts of the projects on the local economy. To determine the feasibility of these projects, interviews were conducted with similar operations and existing business plans and feasibility studies were reviewed. A summary of the findings for each feasibility assessment can be found in this report. The detailed assumptions and pro formas as well as a summary of case studies are attached to this document.

Key Terms

- Internal Rate of Return (IRR): The internal rate of return (IRR) is a calculation of the profit on an investment
 over a period of time. In the case of these economic development projects, the time period analyzed is
 10 years. IRR is used to evaluate the desirability of different investments or projects. The higher the IRR,
 the more desirable it is to undertake a project. Depending on the risk profile of a project, the minimum
 benchmark IRR will change. For these projects, we have assumed a benchmark of 15% as the minimum
 IRR an investor will accept.
- Debt Service Coverage Ratio (DSCR): The debt service coverage ratio (DSCR) is a measure of the
 resources available to pay debt service (calculated as the ratio of net operating income to debt service
 payments). Typically, a DSCR of 1.25 is the minimum required for banks to finance a project.

Local Food Enterprise Center with a Commercial Kitchen

In a survey conducted as part of the Steuben County Agriculture and Farmland Protection Plan, Steuben County farmers identified limited access to marketing services, food processing infrastructure, and new consumer markets as barriers to growing their businesses. One way communities in New York and across the country have addressed similar issues is by establishing a "food hub," where agricultural goods can be aggregated, processed, and distributed to institutional purchasers, such as hospitals, school districts, and universities. For the purpose of this analysis, the food hub has been branded as a "local food enterprise center" due to the inclusion of a commercial kitchen for the production of value-added goods. The local food enterprise center would address some challenges faced by farmers by providing aggregation, distribution, and light processing services; by marketing products to differentiate local goods from other products; and by providing technical and business planning assistance to farmers. In addition to supporting farmers, the enterprise center would position Steuben and the surrounding region to address forthcoming USDA guidelines that encourage consumption of fruits and vegetables by improving the supply and accessibility of fresh produce in the area.

To determine the feasibility of the local food enterprise center project, it was assessed both with and without grant funding and preferential financing. New York State has provided grant funding to similar projects in the past. With about \$400,000 in grant funding and a 20-year bank loan at 2% interest, the local food enterprise center and commercial kitchen would be considered financially feasible. This financing would result in an IRR of 15%.

Malt house

As the production of craft beer and whiskey has increased across the country, the demand for craft malted barley has also increased dramatically. Malted barley is one of the primary ingredients of these products and an integral part of the craft beverage food chain. A new malt house within the county could capture the market opportunity created by the growth of the craft beer and whiskey industry in New York State. However, the facility could face the challenges of competition from established craft malt houses in other states and slim profit margins.

The craft malt house project was analyzed both with and without public support in the forms of grant funding and preferential financing. New York State has provided grant funding to similar projects in the past. With a \$128,000 grant and a 20-year loan with 1% interest, such as the terms offered through the Rural Initiatives Program, the project would be financially feasible and result in an IRR of 15%.

Potato Vodka Distillery

Through interviews with potato farmers in Steuben, it was revealed that anywhere from 10% to 40% of the potato crop in a given year cannot be sold to large potato purchasers because the potatoes are too large, small, or irregularly shaped. Craft potato vodka distilleries in other communities, such as Cold River Vodka in Maine, have grown out of this need, providing an outlet for potatoes that are not marketable otherwise. Based on the projections for the distillery, as much as \$500,000 could be paid to farmers in Steuben County for the potatoes used for craft vodka production over the first 10 years of operation. Without the distillery, it is likely that these potatoes would have been discarded or used as fertilizer. In addition to providing a secondary market for unsold potatoes, the distillery could also attract more visitors to the region, building on the area's strong craft beverage tourism.

To determine the financial feasibility of the craft potato vodka distillery project, it was analyzed with and without public support. In the past, New York State and the USDA have provided grant funding to similar operations. If the Steuben vodka distillery were able to receive a \$203,000 grant and a 20-year loan at 1% interest, the project would be financially feasible and result in an IRR of 15% which is required by investors.

USDA Slaughterhouse & Processing Center

Across the country, there is a growing interest in sourcing food locally. However, as the number of USDAapproved slaughterhouses has declined over the past two decades, this demand has been difficult to satisfy for the livestock products. As one of the largest producers of livestock in New York, Steuben County is well positioned to host a USDA slaughterhouse in the county that would give farmers the ability to retain the processed meat of their animal and sell it at their discretion as well as save the time and cost of traveling to distant slaughterhouses. However, the slaughterhouse would be competing with larger facilities in Pennsylvania as well as new small slaughterhouses and processing facilities in New York State. The smaller USDA slaughterhouses and processing centers often struggle financially, due in part to the cost of equipment and the expense of obtaining USDA approval.

The financial feasibility of the slaughterhouse was initially analyzed without public support in the forms of grant funding or preferential financing. New York State and USDA have provided grant funding and other financial support to similar projects in the past. With a \$400,000 grant, the project would become attractive to both investors and banks, with an IRR of 15.9%.

Steuben County Agricultural Economic Development Projects Financial Feasibility



Local Food Enterprise Center & Commercial Kitchen

Introduction

Steuben County farmers have identified limited access to marketing services, food processing infrastructure, and new consumer markets as barriers to growing their businesses. A local food enterprise center, commonly known as a food hub, based in the county could address many of these barriers by providing aggregation, distribution, and light processing services to sell to major customers; by marketing products to differentiate local goods from other products; and by providing technical and business planning assistance to farmers.

In addition to aggregation and distribution services, the center would include a commercial kitchen that could rent space, allowing community members to produce value-added agricultural products, such as jams, sauces, baked goods, and dressings. Combined, the local food enterprise center and commercial kitchen would improve access of local farmers to a myriad of customers of agricultural products.

The financial feasibility of a local food enterprise center and commercial kitchen were assessed, both together as one project and separately as independent projects. The consultant team reviewed financial data, provided by the USDA, National Good Foods Network, and New York and other state's agricultural extension offices, for similar institutions across the country. Interviews were also conducted with Foodlink, a food bank and food hub based in Rochester, NY serving low income individuals, and the Western Massachusetts Food Processing Center, a commercial kitchen based in Franklin County, MA.

The local food enterprise center was assessed both with and without grant funding and preferential financing. Based on the center's internal rate of return (IRR) and debt service coverage ratio (DSCR), the local food enterprise center will need public support. New York State has provided grant funding to similar projects in the past. The food hub concept leverages current statewide funding priorities. The concept has been actively supported by the state's Regional Economic Development Councils, which recently awarded \$1.3M to help establish new food hubs around the state. Therefore, with about \$400,000 in grant funding from the REDC and a 20-year bank loan at 2% interest, the local food enterprise center and commercial kitchen would be successful with a IRR of 15%.

Analysis Overview

Financial data from institutions across the country was analyzed to determine approximate startup costs, crop requirements, and employment potential of a food hub. Such facilities included Food Link, a food bank and food hub based in Rochester, NY serving low income individuals, as well as the Western Massachusetts Food Processing Center, a commercial kitchen based in Franklin County, MA.

Results from the analysis indicate that the local food enterprise center would rent about 8,500 square feet of space, with roughly 6,500 square feet dedicated to the aggregation and distribution warehouse and about 2,000 square feet dedicated to the commercial kitchen. The startup costs for a facility of this size exceed \$1 million. Combined, the local food enterprise center and commercial kitchen have significant synergies. The two organizations can share staff, storage space, and some equipment.

In year 1, combined revenues are expected to exceed \$500,000, growing to over \$2.1 million by year 10. The number of acres growing food for the center would increase from 200 acres in year 1 to nearly 800 acres in year 10. Over the same period, the number of customers utilizing the commercial kitchen would double from 15 to 30.

Employment levels at the combined food enterprise center and commercial kitchen would be relatively low. Many similar enterprises rely on volunteers for some labor. In year 1, the center would employ 3 Full-Time-Equivalent employees (FTEs), growing to 8.5 FTEs by year 10. The project has the potential to spur new business in the tourism, food and beverage industries that will contribute to the economic growth of the County.

Project Benefits

While the local food enterprise center itself would not be a major employer, the operation has the potential to create a significant number of jobs in the community. Customers of other food hubs have identified carrots, peppers, cucumbers, tomatoes, onions, and broccoli as the produce they would be most interested in purchasing from a food hub. Therefore, the local food enterprise center could encourage farmers to convert land dedicated to commodity crops, such as corn, to more labor intensive vegetables, fruits, and legumes or bring fallow land into production, creating more on farm jobs.

The center could also help create jobs throughout Steuben's economy. A recent food hub feasibility study for Southern Wisconsin, prepared by the University of Wisconsin, estimates that 2.2 new jobs are created on and off the farm for every \$100,000 of local food sales. By this estimate, food sales over the first 10 years of operation would create over 40 indirect jobs in Steuben County.

The enterprise center modeled in this scenario returns about 70% of food sales to its farmers. Some food hubs return as much as 80% of sales to their farmers. Over the first ten years of operations, this income for farmers would amount to over \$12 million. This income would not be all new to the farmers as sales through the center may simply replace some sales to other customers. However, by cutting out middlemen, marketing and differentiating products, and operating with the farmers' interests in mind, the center's suppliers should see an increase in their income by selling through the enterprise center. The Local Food Hub, based in Charlottesville, VA, surveys its producers to determine their level of satisfaction with the services being provided. In the most recent survey, all farmers responded that the prices they received for their goods were "excellent," suggesting that the prices were higher than those received prior to the Local Food Hub.

Based on the average income per farm in Steuben, it is estimated that the \$1.3 million returned to farmers in year 10 would support over 40 farms. This income could support the attraction and retention of new and multi-generational farmers in the county.

The benefit of a commercial kitchen at the local food enterprise center is that it encourages entrepreneurship and small business development. Through this kitchen, businesses can be created that use the agricultural products available in Steuben County as inputs. This not only benefits the entrepreneurs and any future workers their businesses may employ, but also farmers who could sell their goods to these businesses to create the value-added end products.

Project Costs

As proposed, the 8,500 square foot facility would include approximately 6,500 square feet of warehouse space and 2,000 square feet of kitchen space. The enterprise is expected to rent at a rate of \$6 per square foot, for a year 1 rental expense of \$39,000. This rate is based on the type of space needed for this business and is consistent with local rates for comparable space and rates paid by other food hubs/commercial kitchens across New York State. This rent is expected to increase at the rate of inflation. In total, upgrading this building and purchasing the equipment required to aggregate, process, and store farm goods as well as outfit the commercial kitchen would be nearly \$1.1 million. Most of this expense will be dedicated to outfitting the commercial kitchen portion of the building.

The local food enterprise center would require \$1.6 million of owner's equity and bank financing to cover startup costs and initial operational expenses. This initial capital increases to nearly \$2 million when depreciation of equipment is considered.

Financial Feasibility

Assumptions

To assess the financial feasibility of a local food enterprise center with a commercial kitchen, the consultant team identified key assumptions for the project, as outlined below. Additional assumptions are included in the attached spreadsheets.

- **Financing:** A loan amount of 65% of the development cost, with an interest rate of 6% amortized over 10 years.
- Capitalization Rate: 15% capitalization rate (the rate of return based on the expected net operating income the business will generate). This figure is used to calculate sale proceeds. At the end of year 10, we assume the business is sold, generating \$1.6 million, net of commission and after paying off all remaining debt.
- Inflation: 2% rate of inflation of the inputs and products
- **Building size:** 8,500 sq. ft., including warehouse space, storage (cold, cooler, and dry), and a 2,000 sq. ft. kitchen
- **Rent:** \$6/sq. ft.
- Construction and equipment costs: \$1,084,000

Financial Analysis

At a cost of over \$1.1 million for equipment and building upgrades, the startup costs for the local food enterprise center with a commercial kitchen are very high. Most of these initial costs are a result of the machinery, equipment, and building upgrades required to develop a commercial kitchen. The startup costs for the enterprise center without the kitchen are much lower. The net operating income will be negative in the first two years of operation, turning positive in year three, and growing to \$250,000 by year 10. However, when debt service and depreciation are considered, the center's cash flow is not positive until year seven. This financial situation is similar to other establishments across the country. Most food hubs surveyed by the USDA are breaking even or relying on grants to cover some operating expenses. The commercial kitchen interviewed by Camoin Associates also relies on grants to upgrade machinery and its host organization, the Franklin County

Development Corporation, to provide reduced (and sometimes free) rent.

After reviewing feasibility studies for establishments similar to the local food enterprise center, the supply of local produce, especially "specialty crops" such as fruits and vegetables, tree nuts and dried fruits is a major factor in the financial success of a food enterprise center. A University of Wisconsin study determined that about 486 acres of land dedicated to growing specialty crops generates about \$1 million of sales. A separate study also determined that food enterprise centers generally breakeven (sales cover expenses, but very little profit or savings) with about \$1.2 million in sales. Therefore, for this local food enterprise center to breakeven in Steuben County, about 590 acres of specialty crops would be required. Currently there are 7,000 acres dedicated to "specialty crops" in Steuben County.

Feasibility Tests

Debt Service Coverage Ratio (DSCR): The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, a DSCR of 1.25 is the minimum required for banks to finance a project. Based on the assumptions for this project, the DSCR is negative for the first two years of operation. In the third year, the DSCR is positive but below the 1.25 threshold. The project does not meet the 1.25 threshold until year 5. Based on the anticipated DSCR of this project, the project, the project will not be appealing to bank financing.

Internal Rate of Return (IRR): The internal rate of return (IRR) is a calculation of the profit on an investment on a pre-tax basis over a period of time. In the case of the local food enterprise center, the time period analyzed is 10 years. Depending on the risk profile of a project, the minimum benchmark IRR will change. For this project, we have assumed a benchmark of 15% as the minimum IRR an investor will accept. Based on the current assumptions for this project, the IRR is 4%. Therefore, the IRR would not meet the investor's goal.

Conclusions

To meet the IRR threshold of 15%, nearly \$400,000 of grant funding and a 20-year bank loan at 2% interest would be required. In addition, nearly \$1 million of owner's equity and other financing would be required to fund other startup costs and initial operating expenses. If depreciation is considered, the amount increases to \$1.2 million. With this level of public support and startup capital, the local food enterprise center would be considered financially feasible.

Similar ventures in New York State have received grants through the Consolidated Funding Application process. Financing through the CFA process since 2012 for food hubs has ranged from \$130,000 to \$1.5 million. These projects varied in terms of the project's mission, size, and services. The scale of the project that received the \$1.5 million grant was much larger facility than the center being considered in Steuben. The project was designed to serve a multi-county region in a 48,000 square foot facility. The mission of some funded projects, such as the Foodlink project in Rochester, focus on providing healthy, local food to low income populations. Despite these variations, the funding for these projects demonstrate that New York State has provided significant financial support to similar projects in the past.

The USDA also offers grant programs that could support the local food enterprise center. The Farmers Market and Local Food Marketing Program provides funding to increase the accessibility of local foods and support marketing activities. The USDA also offers Specialty Crop Block Grants, to support farmers as they transition to growing specialty crops, which could help improve the supply of products to the local food enterprise center.

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Malt House

Introduction

One of the primary ingredients of both craft beer and whiskey is malted barley. As the NYS Farm Brewery and Farm Distillery acts are implemented, brewers and whiskey distillers with farm licenses will be required to source an increasing proportion of this ingredient from within New York by 2024. Small craft malt houses have started coming online to service NY brewers and distillers. (However, we note that the legislation only requires the barley to be grown within the state but does not require the barley to be processed within the state. So, these small NY malt houses must compete against malt that is processed in Massachusetts and other states using NY-grown barley. That being said, demand for malted barley in New York is growing dramatically.)

A new malt house within the county could capture the market opportunity created by the growth of the craft beer and whiskey industry in New York State. To determine whether this malt house could be financially feasible, we analyzed financial information from other craft malt houses, interviewed Riverbend Malt, based in North Carolina, and reviewed case studies and feasibility assessments of malt houses across the country.

Initially, the project was analyzed assuming only private sector financing. Subsequently, the level of public or non-profit funding required to make the project feasible was determined. Based on the malt house's IRR and DSCR, the malt house project would be financially feasible with a \$128,000 grant and a 20-year loan with 1% interest. This type of loan would be available, with a \$300,000 maximum, through the Rural Initiatives Program administered by the Steuben County IDA.

Funding opportunities for these types of projects are becoming increasingly available. In recent years, New York State has focused on economic development projects that support the micro-brew industry. The most recent round of CFA grants provided numerous awards to brewing-related projects, with over \$2.2M in grants to small businesses in the craft brewing/distilling industry.

Analysis Overview

The project would occupy a 2,400 square foot facility. At \$275,000, the malt house has relatively low startup costs. In year 1, the malt house would produce 75 tons of malted barley, utilizing about 3,200 bushels of barley. This annual output would grow to 250 tons of malted barley by year 4, utilizing nearly 11,000 bushels of barley.

Employment levels at malt houses are generally low. Based on the case studies reviewed, the malt house was estimated to start with 2 FTEs, growing to 3 FTEs by year 3. Unless production continues to expand or the malt house adds new revenue sources, such as retail or tours, 3 FTEs is likely the maximum number of employees.

Project Benefits

While the direct jobs created at the malt house would be small, the project could bring other economic benefits to Steuben County. As an integral part of the craft beer and whiskey supply chain, the malt house could further develop interest in craft beverage tourism in the region. Riverbend, a craft malt house in North Carolina, said they provide tours of the malt facility to hundreds of visitors every year. Additionally, the malt house could be an asset to attract new craft distillers or brewers to the area. Malted barley is in high demand in New York and across the country. Local production of malted barley could be an incentive for breweries to consider Steuben. While very little malt barley is grown in New York at this time, the demand is growing. A craft malt house in the county could be an impetus for farmers to capitalize on underutilized land or expand their current crops to supply the malt house.

Project Costs

At \$275,000, the startup costs of the malt house are low, relative to the other projects researched. However, the malt barley industry has low profit margins, even for mega producers. While the number of employees is low, wages and benefits are the highest costs for the malt house, followed by the cost of barley, rent, and loan payments.

New York State Farm Brewery and Farm Distillery Acts

In 2012, Governor Cuomo passed Farm Brewery legislation to strengthen the state's vibrant craft beer industry. In addition to tax exemptions to make the industry more sustainable and lucrative for new and small producers, it created a Small Farm Brewery license that would allow craft brewers that use products grown in New York State to operate in a similar fashion to the state's farm wineries, leading to increased demand for locally grown farm products as well as expanded economic development and tourism. Licensed small farm breweries are now allowed to sell NYS labelled beer, wine and liquor and other beer-related products at their retail outlets. The license also allows breweries to open restaurants on the same property.

In order to receive a Farm Brewery license, the beer must be made primarily from locally grown farm products. The schedule for the license is as follows:

- Until the end of 2018, at least 20% of the hops and 20% of all other ingredients must be grown or produced in New York State.
- From January 1, 2018 to December 31, 2023, no less than 60% of the hops and 60% of all other ingredients must be grown or produced in New York State.
- After January 1, 2024, no less than 90% of the hops and 90% of all other ingredients must be grown or produced in New York State. T

While the number of breweries are already greatly increasing as a result of this legislation, the production of barley and hops in New York State is just beginning to respond to this demand. Brewery support industries including processing and bottling is lagging behind in not only Steuben County, but all of the state and represents an opportunity in this growing and lucrative industry. Over \$400,000 of owner's equity and bank financing would be required to fund the project's startup costs as well as its initial operating expenses until it reaches profitability. If depreciation is considered, the capital required increases to nearly \$500,000.

Financial Analysis

Assumptions

To assess the financial feasibility of the malt house, key assumptions were identified for the project, as outlined below. Additional assumptions are included in the attached spreadsheets.

- **Financing:** A loan amount of 65% of the development cost, with an interest rate of 6% amortized over 10 years.
- **Capitalization Rate:** 15% capitalization rate (the rate of return based on the expected net operating income the business will generate). This figure is used to calculate sale proceeds. At the end of year 10, we assume the business is sold, generating \$301,298, net of commission and after paying off all remaining debt.
- Inflation: 2% rate of inflation of the inputs and products
- Building size: 2,400 sq. ft.
- **Rent:** \$8/sq. ft. (including insurance, property tax, and common area maintenance)
- Construction and equipment costs: \$275,000

Financial Feasibility

Compared to the other economic development projects, the malt house has low startup costs, however, its financial positioning is still tenuous without additional funding support. The malt house begins production with an output of 75 tons of malt barley and is projected to produce 200 tons by the third year of operation. At this output, the malt house could have a positive net operating income while continuing to run a deficit until year 6 when debt payments and depreciation are considered. Malt barley production is considered a low margin industry, even for large scale malt producers. Many establishments take several years to turn a profit, and when they do, that profit margin is small.

Debt Service Coverage Ratio (DSCR): The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, a DSCR of 1.25 is the minimum required for banks to finance a project. Based on the assumptions for this project, the DSCR is negative for the first two years of operation. In year four, the project meets the desired threshold, with a DSCR of 1.57. Based on the anticipated DSCR of this project, the project will be a challenge to obtain bank financing.

Internal Rate of Return (IRR): The internal rate of return (IRR) is a calculation of the profit on an investment on a pre-tax basis over a period of time. In the case of the malt house, the time period analyzed is 10 years. Depending on the risk profile of a project, the minimum benchmark IRR will change. For this project, we have assumed a benchmark of 15% as the minimum IRR an investor will accept. Based on the current assumptions for this project, the IRR is less than 0%, therefore, the IRR would not meet the investor's goal.

Conclusions

In order for the malt house to be considered financially feasible and have an IRR of 15% for investors, it would require a \$128,000 of grant funding and a 20-year loan at 1% interest. In addition, over \$235,000 of other capital, including both owner's equity and bank financing, would be required to cover startup costs and initial operating expenses. If depreciation of machinery is considered, the amount of other additional capital required increases to nearly \$290,000. With this level of public support and startup capital, the malt house would be considered financially feasible.

New York State has demonstrated an interest in supporting the craft beer, liquor, and cider industries in the state by providing financial support through grants. Recognizing the importance of malt production to the craft beverage industry, malt houses have also received support through the CFA process. For example, NY Craft Malt in Batavia was awarded \$117,000 in grant funding through Empire State Development to purchase equipment and machinery. However, based on discussions with the malt house, NY Craft Malt is struggling to find customers for its product, despite the demand for malted barley. This has limited its ability to increase production and hire workers. Another major challenge for NY Craft Malt and other malt houses in the state is maintaining a regular supply of New York malt barley. The crop is vulnerable to failure due to disease and weather fluctuations. NY Craft Malt farms its own barley on 75 acres but needs about 200 acres of malt barley production to produce at capacity.

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Vodka Distillery

Introduction

The number of small, micro distilleries has been increasing across the country and New York State, mirroring earlier growth in the craft beer industry. Most of these new distilleries produce craft whiskey. However, vodka distilleries are increasing in popularity, with distillers using inputs ranging from traditional grains to beets and sweet potatoes. While still rare compared to more typical grain inputs, some distilleries are using potatoes to produce small batches of high quality vodka. These vodka distillers, such as Cold River Vodka in Maine, often grow out of a need to find a use for "waste potatoes" that are too large, small, or irregularly shaped to be used for other potato products, such as chips.

To determine whether a potato vodka distillery could be financially feasible in Steuben County, financial information from other craft distilleries and analyzed information provided by the American Distilling Institute was reviewed.

The potential operation was initially analyzed assuming purely private sector funding. Based on the distillery's IRR and DSCR, a vodka distillery would not be considered financial feasible without grant funding and preferential financing. In the past, grant funding has been provided through New York State's Consolidated Funding Application and the USDA's value-added agricultural processing program to help fund similar operations. If the Steuben vodka distillery were able to receive a \$203,000 grant and a 20-year loan at 1% interest, the project would be financially feasible. As previously noted, these loan terms could be offered through the Rural Initiatives Program through the Steuben County IDA.

Analysis Overview

In Steuben County, farmers are unable to sell between 10 to 40 percent of the potato harvest because it does not meet the specifications of major potato customers, such as UTZ. With over 2,900 acres of potatoes harvested in the county, this amounts to significant lost income for the farmers.

A vodka distillery that uses potatoes as the primary input would provide a secondary market for these "waste potatoes." The vodka distillery modeled in this scenario rents a 2,500 square foot facility. The distillery would produce over 14,000 bottles in year 1, using about 250,000 pounds of potatoes. Over 10 years, the number of bottles produced would double to over 31,000. By year 10, the distillery would be using about 550,000 pounds of potatoes annually.

Typically, craft distilleries are not large employers. Often, the owner may work alone or with another part-time worker to setup and operate the distillery for the first years of operation. In this example, the number of staff required to produce 1,100 cases in year 1 was 2.5 FTE, growing to 4.5 FTE in year 10.

Project Benefits

By providing a secondary market for potatoes, the vodka distillery would increase the income of potato farmers in the area. Over the first ten years of the vodka distillery's operation, over 4 million pounds of potatoes would be purchased by the distillery, generating \$440,000 of income to farmers. Since it is assumed that these potatoes would be unsold without the distillery, this \$440,000 would be new income to the farmers. This new income could retain existing potato farmers in the community and improve the profitability of their establishments.

While the direct employment at the distillery is small, businesses in this industry have a high jobs multiplier. In the case of the distillery, the multiplier is 5.17, meaning that for every job created at the distillery, an additional 4.17 jobs are created elsewhere in the economy. By year 10, nearly 19 indirect jobs could be created in Steuben County, in addition to the 4.5 jobs created at the distillery.

The distillery could also be a tourism draw, leveraging existing craft beverage tourism assets in the region. The craft distillery could attract tourists interested in "farm to bottle" products, and contribute to the region's beer, wine and vodka "trails".

Project Costs

The distillery's initial startup costs of equipment and building upgrades are estimated at \$550,000. The costs of wages is expected to be the biggest operating expense at the distillery. The costs of marketing is also expected to be high, accounting for between 15% and 20% of all expenses in a given year. This high marketing expense is necessary to establish the new vodka in the market and ensure it is appropriately branded as a premium liquor crafted from local inputs. The costs of packaging and the federal excise tax are the highest after wages and marketing costs.

Without grant or other financial support, over \$770,000 of owner's equity and bank financing would be required to fund the project's startup costs as well as its initial operating expenses until it reaches profitability. If depreciation is considered, the capital required increases to over \$1,000,000.

Financial Analysis

Assumptions

To assess the financial feasibility of the malt house, the team identified key assumptions for the project, as outlined below. Additional assumptions are included in the attached spreadsheets.

• **Financing:** A loan amount of 65% of the development cost, with an interest rate of 6% amortized over 10 years.

- **Capitalization Rate:** 15% capitalization rate (the rate of return based on the expected net operating income the business will generate). This figure is used to calculate sale proceeds. At the end of year 10, we assume the business is sold, generating \$760,872, net of commission and after paying off all remaining debt.
- Inflation: 2% rate of inflation of the inputs and products
- Building size: 2,500 sq. ft.
- Rent: \$11/sq. ft. (including insurance, property tax, and common area maintenance)
- Construction and equipment costs: \$550,000

Financial Analysis

Generally, distilleries face higher startup costs and a smaller market than their counterparts in the brewing industry. Without grants or preferential financing, the distillery modeled here would have negative operating income for the first two years of operation, becoming positive in year three. However, when depreciation and debt service are considered, the operation would not become profitable until year 9.

Debt Service Coverage Ratio (DSCR): The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, a DSCR of 1.25 is the minimum required for banks to finance a project. Based on the assumptions for this project, the DSCR is negative for the first two years of operation. In the third year, the DSCR is positive but below the 1.25 threshold. In year 7, the project meets the desired threshold, with a DSCR of 1.34.

Internal Rate of Return (IRR): The internal rate of return (IRR) is a calculation of the profit on an investment on a pre-tax basis over a period of time. In the case of the distillery, the time period analyzed is 10 years. Depending on the risk profile of a project, the minimum benchmark IRR will change. For this project, we have assumed a benchmark of 15% as the minimum IRR an investor will accept.

Conclusions

With financial assistance in the forms of grant funding and preferential financing terms, the operation could improve its financial standing. To achieve the 15% IRR desired by most investors, the distillery would need a grant of about \$203,000 and a 20-year bank loan at 1% interest. Nearly \$420,000 of additional owner's equity and bank financing would be required to cover startup costs and operating expenses until the distillery is profitable. When depreciation of the equipment at the distillery is considered, the amount of equity and bank financing required increases to nearly \$610,000. With this level of public support and startup capital, the distillery would be considered financially feasible.

Similar ventures have received funding through the Regional Economic Development Council Consolidated Funding Application process. However, the grants for distilleries have ranged widely from \$15,000 to over \$100,000. The awardee of the \$100,000 grant included the renovation of an historic bar as a tourism attraction in addition to the creation of a farm distillery, which may be a reason for the high grant funding. A new cider, beer, and spirts producer in the Hudson Valley received about \$1.5 million in NYS grant funding, however, this was a much larger scale project than what is being considered in Steuben. With these examples in mind, the Steuben farm distillery may have to consider funding sources outside of Regional Economic Development Councils, such as the US Department of Agriculture.

The US Department of Agriculture provides funding for activities related to processing of bio-based, valueadded products through the Value Added Producer Grants program. A similar operation in North Carolina that produces vodka from unused sweet potatoes received funding through this program. The USDA also provides loan guarantees for bank financing, which could help this project secure low interest, long-term financing. This page intentionally left blank

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USDA Slaughterhouse & Processing Center

Introduction

According to the USDA Agricultural Census, there are over 61,000 cattle and calves in Steuben County, with nearly 3,500 "on feed," meaning they are being fed to be slaughtered. In addition, there are about 25,000 hogs and pigs and 4,700 sheep and lambs. Throughout the planning process, farmers indicated the need for more localized processing facilities for the cattle/beef industry as well as other livestock (pigs, hogs, goats, lamb, etc.).

Currently, farmers must travel to larger facilities in Hunt, NY and Wyalusing, PA, which costs farmers time and money, resulting in a less profitable end-product and money leaving the County. Producers have noted that these facilities typically work at capacity, thus resulting in longer wait times and demonstrating a high demand for these types of services. Smaller, local facilities have begun opening but farmers interested in using those facilities often have to make appointments 6 months to a year in advance and still may have to travel several hours to the facility. As consumer demand for grass-fed and locally-raised beef continues to increase, a regional USDA-certified slaughterhouse could potentially allow Steuben County meat producers the opportunity to meet this demand while expanding operations and produce a wider variety of value-added products.

In order to determine the feasibility of developing a slaughterhouse facility in Steuben County, our team reviewed financial data, provided by the USDA, National Good Foods Network, and New York and other state's agricultural extension offices, for similar institutions across the country. An interview was also conducted with United Helpers, which is planning to open a USDA slaughterhouse in St. Lawrence County, New York.

Although the slaughterhouse will be competing with larger facilities in Pennsylvania as well as new small slaughterhouses and processing facilities throughout, based on the slaughterhouse's IRR and DSCR, a local facility could be feasible with grant funding. New York State and USDA have provided grant funding and other financial support to similar projects in the past. With a \$400,000 grant, the project would become attractive to both investors and banks.

Analysis Overview

The limited number of USDA slaughterhouses is a barrier to livestock farmers wishing to sell their products to customers interested in local meats. While one solution is selling live animals to a person or group of people and slaughtering and processing the animal at a custom-exempt processing operation, also known as freezer trade, this limits farmers to a small market of people interested in purchasing meat in this way and prevents farmers from selling to institutional buyers and retailing at farmer's markets. At many large slaughterhouses, farmers are obligated to sell their animal to the company, receiving a fraction of the market value of the meat. In addition to relinquishing control of the meat, farmers also have to travel long distances to these facilities, requiring time, the cost of travel, and lost income due to the weight loss of the animal(s). Smaller facilities have begun opening but farmers interested in using those smaller facilities often have to make appointment 6 months to a year in advance and may still have to travel several hours to the facility.

The livestock slaughterhouse and processing facility modeled in this scenario would build an 8,100 square foot building to process cattle, hogs, pigs, and sheep. As proposed, the slaughterhouse would accommodate the slaughter 1,300 animals in year 1, increasing to 2,500 animals in year 10. The slaughter fee would be \$65 in year 1 with a processing fee of \$0.65 per pound, increasing at the rate of inflation.

Over the same period, employment at the slaughterhouse will grow from 10 to 15 workers.

Project Benefits

Of the projects considered, the slaughterhouse has the highest number of direct jobs, with the facility starting with an initial employment of 10 jobs and growing to 15 jobs by year 10. In addition to these jobs, the facility would create nearly 2 additional jobs for every 1,000 cattle processed.

In addition to direct employment, the facility could make it easier and more profitable to raise livestock in Steuben County. By retaining control of their meat, farmers could sell their product at a premium to consumers interested in purchasing local meats. The farmers would also save the time, expense, and weight loss associated with traveling to a distant facility. Overall, the slaughterhouse could make it more viable to raise livestock in Steuben and could attract new livestock farmers to the area.

Project Costs

With startup costs at over \$2 million, the upfront capital investment and ongoing debt service payments and operational costs are the major challenges to this project's finances. Without any outside support, the project would require over \$2.8 million in owner's equity and other financing to cover the startup costs and operational expenses until year 6. If depreciation of equipment is considered, that amount increases to over \$3 million.

For the purpose of this analysis it was assumed that the slaughterhouse would be located in a newly constructed facility. There are several challenges associated with retrofitting an existing building for this use including health code and sanitary requirements, zoning restrictions, and community resistance. Further, the flow and design of the building is critical to slaughterhouse operations and an existing facility would be difficult to retrofit to meet the operational needs.

Financial Analysis

Assumptions

To assess the financial feasibility of the slaughterhouse, several key assumptions for the project were identified. Some key assumptions are outlined below. Additional assumptions are included in the attached spreadsheets.

- **Financing:** A loan amount of 65% of the development cost, with an interest rate of 6% amortized over 10 years.
- **Capitalization Rate:** 15% capitalization rate (the rate of return based on the expected net operating income the business will generate). This figure is used to calculate sale proceeds. At the end of year 10, we assume the business is sold, generating \$3.7 million, net of commission and after paying off all remaining debt.
- Inflation: 2% rate of inflation of the inputs and products
- Price Inflation: rate of 2% a year for inputs and products
- Building size: 8,100 sq. ft.
- Startup costs (construction and equipment): \$2.1 million

Financial Analysis

Construction and equipment costs for the 8,100 square foot facility are anticipated to be over \$2.1 million. To finance this startup cost, the slaughterhouse will infuse 35% equity into the project and seek over \$1.4 million in financing. By the second year, the slaughterhouse is projected to have a positive net operating income. When depreciation and debt service are considered, the slaughterhouse will operate at a deficit until year six. The slaughterhouse is projected to slaughter and process 1,300 head in the first year, increasing to 2,500 by year 10.

Debt Service Coverage Ratio (DSCR): The debt service coverage ratio (DSCR) is a measure of the resources available to pay debt service (calculated as the ratio of net operating income to debt service payments). Typically, a DSCR of 1.25 is the minimum required for banks to finance a project. Based on the assumptions for this project, the DSCR is negative for the first year of operation. In the second year, the DSCR is positive but below the 1.25 threshold. In year six, the project meets the desired threshold, with a DSCR of 1.37.

Internal Rate of Return (IRR): The internal rate of return (IRR) is a calculation of the profit on an investment on a pre-tax basis over a period of time. In the case of the slaughterhouse, the time period analyzed is 10 years. Depending on the risk profile of a project, the minimum benchmark IRR will change. For this project, we have assumed a benchmark of 15% as the minimum IRR an investor will accept.

Conclusions

Using the financial metrics above, the IRR is close to the 15% IRR desired by many investors and entrepreneurs. With a \$400,000 grant, the slaughterhouse would have an Internal Rate of Return of just under 16%. With this grant, the project would require an additional \$2.1 million in owner's equity and other financing to cover startup costs and operating expenses until the operation is able to turn a profit in year 4. If depreciation is considered, the project would require \$2.3 million in owner's equity and bank financing to help support operations until year 5. With adequate financial support from NYS and the USDA, the Steuben slaughterhouse could be financially feasible.

Adirondack Meat Company in Ticonderoga, NY received \$400,000 in grant funding from Empire State Development through the North Country REDC. The company also engaged in a PILOT agreement with the Essex County IDA to mitigate the costs of property taxes on its new building. In addition, the company received a \$900,000 loan guarantee from USDA, which helped improve the financial standing of the project. Even with this support, the company has struggled to service its debt.