Feasibility of a Hickory Industry in Wisconsin

Director of the Fiscal and Economic Research Center:

Russ Kashian, Ph.D.

Principal Researcher:

Matthew Winden, Ph.D.

Research Analyst:

Paul Lloyd

Editor:

Emmett Storts

Table of Contents

Introduction

The purpose of this report is to analyze the current market of hickory, with a focus on the potential development of a hickory nut collecting, processing, and selling plan in the state of Wisconsin. Shagbark hickory trees are prevalent through the southern 2/3rds of Wisconsin and could provide an opportunity for rural development and employment while further enhancing the image of Wisconsin. The Hickory produces a nut with similar characteristics as pecans and walnuts, but it is often considered to be of superior quality. The pecan itself is a member of the Hickory family. This report will look to the current tree nut market for opportunities for hickory nuts to differentiate and succeed relative to the commercialized nuts already available. Finally, this report will make business feasibility recommendations based on short and long-term projections.

History

The shagbark hickory tree, scientific name *carya ovata*, is native to the East and Midwest regions of the United States. As the name suggests, the long stipes of bark give the appearance of a shaggy look to the trunk. Hickory can withstand a range of temperatures, but it grows best on well-drained soils in humid climates. The average height of shagbark hickories is between 60 and 80 feet tall, but some have reached as high as 120 feet. The wood has unique compression and torque characteristics and has been used in the past extensively for ax and tool handles as well as Major League Baseball bats, earning it a cultural image of strength and toughness. Hickory wood and bark was used for baskets, bows, and a wide assortment of other goods. The nut is one of the only nuts Native Americans ate raw because of its buttery and sweet taste. Also, a sweet, milky substance can be extracted from the nuts and was used by the Natives frequently. Hickory disappeared from the public eye due to its predominance in the use of gunstocks, barrels, wagon

wheels and other uses during early wars, where the quantity of *slow-growing* hickory trees was reduced drastically.

Uses of Hickory

Hickory is a versatile tree with many different potential products to be made from it. The first place to start would be the wood itself. Hickory wood is considered to be one of the best woods available in terms of durability, strength, and shock-resistance. It's not as strong or as durable as some, but the combination of its qualities makes it a highly desirable option for furniture products. Though the hickory tree has diminished in cultural popularity over time, the nickname "Old Hickory" was given to Andrew Jackson, the seventh President of the United Sates, as a reference to his grit and toughness in a time when hickories were more prevalent in public perception. The Algonquin-speaking Native American tribes of the East Coast are credited with teaching the Virginia settlers how to use wood from hickory trees to smoke meats. Today it is typically sold in chips like mesquite to smoke hams and other products to enrich the taste. The wood is also very valuable and efficient as a firewood, where it is legendary for producing a long burn, maximum heat, and minimal ash. A cord of hickory generates heat equivalent to 175 gallons of fuel oil, or a little over a ton of coal. Hickory can also be used to make a syrup and a valuable commodity referred to by European settlers as "hickory milk"; a quart of the oily substance was readily traded for 19 pounds of pork. Hickory nut oil and extracts can also find usage in health and personal care products like other similar tree nuts have.

Likely the most profitable and currently underutilized use of hickory trees is the nuts that they produce. With almost no current production and selling of the nuts, a potentially valuable market awaits those who have the capital and support to develop a collecting, processing, and selling plan. The two most desirable nut hickories are shellbark and shagbark. Both have sweet

nuts that vary in size and are encased in hard, thick husks that turn from green to brown in the fall. They are close relatives to walnuts and pecans, who both have found success in the commercial tree nut industry. Hickories are often said to taste better than either, and the nuts are easier to crack and typically have a higher nutmeat yield than black walnuts, which only yield about 8% nutmeat on average according to the Hammons Products Company of Stockton, Missouri. The nutmeat can be eaten on its own or used as an addition to home baked goods and ice cream. The Hammons Products Company says that the greatest volume of the 2 million pounds of black walnut nutmeats processed each year are used in home baking in traditional recipes such a cakes, cookies, pies, and nut breads.

The shells of the nuts can eventually be used in value-added products to increase the value of the nut and help margins. The shells can be used in abrasive blast cleaning and polishing. Additionally, a portion of them can be used in cosmetics and soaps. A shell flour may be able to be used as filler in some products similar to black walnut shell usage. A report from UW-Madison, which interviewed 5 nut growers identified whole nuts to be the best product for start-up businesses, as the infrastructure required for adding value from the nut shells can be cost prohibitive. For our purposes, we at the FERC will look mainly at the profitability of the whole nuts available currently to gather, but the value-added products should not be ignored when considering long-term commercialization.

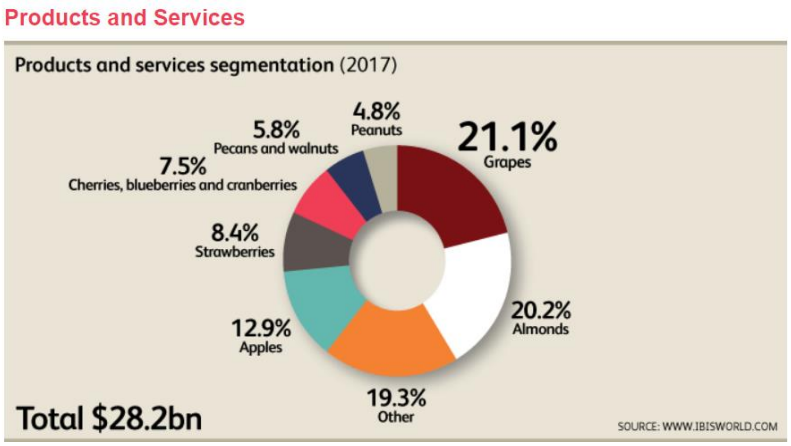
Health Benefits

Recently, all types of nuts have been increasing in the average American's diet. The reason nuts have enjoyed more popularity as of late resembles the rise of olive oil; tree nuts and peanuts contain healthy monounsaturated fat rather than the saturated fat found in meat and dairy products. A recent study by Dr. Penny Kris-Etherton, a nutritionist at Pennsylvania State University, showed

a diet with 36% of calories from monounsaturated fat in peanuts reduced the risk of heart disease by 21%. Pecans, a member of the hickory family, possess disease-fighting antioxidants which are considered helpful in the fight against cancer, heart disease, Alzheimer's and other chronic diseases. Research released by Loma Linda University in 2006 revealed how adding a mere handful of pecans to a healthy diet could help control bad cholesterol that can build up and lead to clogged arteries. Walnuts, a close cousin to the hickory, have been shown to contain many different neuro-protective compounds, such as vitamin E, folate (vitamin B), melatonin omega-3 fats, and antioxidants. A 2012 study of college students found that students who added walnuts to their diet increased inferential reasoning by 11.2%.

The Market

While hickory nuts are not commercially available, if they belonged to a commercial industry, it would be the Fruit and Nut farming industry. The industry includes farmers growing nuts such as almonds, peanuts, and pecans, as well as fruits, such as apples, berries, and other non-citrus fruits. According to IBIS World, in 2016, the industry earned $28.2 billion in revenue and is expected to grow by 2.7% in the next five years. Pecans and walnuts make up 5.5% of the revenue, which is roughly $1.64 billion.



Other nuts included are peanuts at 4.8% and almonds at 20.2%. The expectation of growth is driven by consumers seeking healthier options in their diet, economic growth, and population increase. The USDA statistics confirm that the healthy

eating index has risen in consecutive years from 2005 to 2012, up from 49.48 to 59.00. IBIS World also indicated that nuts have grown the fastest of any industry products, with the market growing simultaneously. Exports are a major factor in the industry and are expected to increase. These factors will allow consumers to purchase newer and more expensive nuts, potentially allowing hickory some room in the market and the opportunity to take market share from similar substitutes. Some of the key factors listed for tree nuts include the production of premium goods, appropriate growing conditions, and establishment of export markets. Economies of scale and increased size of operations are said to lead to higher profit margins according to a USDA citation, indicating the potential benefit of future commercialization.

Demand

A thesis written by Hardev Dhaliwal from 1972 explained interrelated demands of tree nuts in detail. The paper found that pecans and walnuts act as substitutes while pecans and pistachios are complementary. The study used a single stage least squares approach to find the interrelated demands. Most other tree nut relationships were deemed insignificant and indicated independent demand. The areas of interest in this study suggest a likely substitute relationship with pecans and walnuts. An article written in 1989 by Albert Okunade restates the prevalence of substitution and complementary effects between certain tree nuts. He goes on to explain the relationship by saying the overlapping marketing seasons and use in many different food items such as ice cream, chocolate, syrup, milk, and others connect the demands of different nuts.

Sebastian Awondo and Esendugue Fonsah analyzed the dynamics of demand in U.S. tree nuts in 2014. Time series data from 1981-2011 was used to look at demand elasticities of different tree nuts. This study found all tree nuts apart from almonds to be normal goods and found Marshallian own demand elasticities between -0.861 and -1.133 for the major tree nuts using a

dynamic Almost Ideal Demand System model. This indicates that, for most nuts, a 1% reduction in demand would occur from a 1% increase in price when the price is in equilibrium. The nuts closer to 0 will have lower price sensitivity, with the opposite being true for those further from 0. Walnuts are the low boundary here with almonds being the high boundary. Hickory being so closely related to walnuts suggests a similar demand elasticity will hold true, meaning that hickory demand should be less sensitive to price changes than other nuts. The paper also provided demand statistics such as a 5,000% increase in tree nut exports to China from 2007 to 2011, and a 500% increase to Vietnam in the same time frame. It also found a 400% increase of nut production in the U.S. from 1980 to 2011, and a per capita increase in consumption of shell tree nuts from 2 pounds to 3 pounds per year. Per unit nominal price of nuts rose by at least 100% from 1980-2011, far outpacing inflation.

Guo Cheng, Senaraath Dharmasena, and Oral Capps, Jr. conducted a study to analyze tree nut demand as well, focusing on how the variety of choices affects consumer decisions. They found that price changes account for approximately 90% of total tree nut consumption, indicating an interdependent relationship between different tree nuts. Furthermore, the paper states that consumers search for variety when facing tree nut consumption choices based on the evidence they found in total expenditure of mixed nuts packaging and their Entropy Index coefficients. According to their coefficients, consumers will purchase more of pecan, almond, walnut, pistachio, and mixed packaging when satisfying taste for variety. This study also had nearly identical demand elasticities for tree nuts as those found by Awondo and Fonsah.

Supply

Currently there is no certainty about the exact number of hickory nuts bought within the United States; the market is very isolated and clandestine. Most hickory nut gatherers are hobbyists

and enthusiasts who also work full-time jobs. People and organizations have been drawn to hickory nuts because of its cultural history and the rising awareness of the benefits of adding nuts to a typical diet. They are also drawn to the low amount of competition and the high-quality taste of the nut, especially when compared to substitutes such as pecans and black walnuts. The Wisconsin Hickory Association, founded in Green Lake County, Wisconsin in 2014 is one such organization looking to spur public interest and help drive rural development and employment while promoting potential future commercialization and profitability.

The supply of hickory trees is quite difficult to increase quickly. Estimates from the University of Kentucky's College of Agriculture put the first harvest timing from young hickory trees at 10-12 years depending on a multitude of different factors that could change. Other estimates of grafting trees put the first harvest around 15 years, and a hickory tree in the wild is expected to begin nut production at about 20 to 30 years. This delays the potential mass commercialization of hickory nuts and expanding the hickory tree supply by a significant amount. As such, the short-term possibilities will be explored more thoroughly to showcase the realistic expectations for the present and the potential industry implications for the future.

Hickory Nut Production

When eaten raw, typical tree nuts are slightly bitter and leave an aftertaste of shell. The flavors improve after the nuts are dried and processed into a final product. However, this is not necessary for the shagbark hickory nut. The raw, fresh nut of the shagbark is already buttery and sweet with no poor aftertaste.

The current practice for picking, cracking, and eating shagbark hickory nuts is to pick them off the ground by hand, lay the nuts out to dry for a week or two, then manually shell using a hammer or nut cracking device and small pick. Nut meats are stored refrigerated or frozen.

First, the nuts must be gathered. Some black walnut collecting processes use collection centers for people to submit their harvested walnuts from their local area. This strategy will be looked at for this report, as many of the current hickory trees in Wisconsin stand on private lands. Pickers can use a rolling device to pluck nuts of the ground without having to bend over.

Once collected, the nuts must be sorted. In some cases, pests can bore holes in the nut, eat the nut meat, and leave the nut looking untouched. To separate the good and bad nuts, the nuts can be float tested. The bad nuts will float, and the good nuts will sink. The bad nuts can be discarded or stored for ancillary nut shell-based products.

Next, the nuts must be shelled. Traditionally, hickory nuts are cracked individually with a hammer, vise, or specially designed nut cracker. This method of processing can be used for the short-term plan. Unskilled labor can be employed throughout rural Wisconsin which will help economic development in the area through real wages to the workforce.

Current Hickory Nut Availability

While Hickory Nuts are not currently commercially available, hobbyists do collect, process, and sell them. Some hobbyists further produce the nuts in to products with hickory nut flavoring. Because these groups are small and usually regionally based, there is not much information on them. However, we can estimate the number of trees and nuts available for collection. A mature hickory tree produces between 50 and 150 pounds of tree nuts. Of these, the edible nut meat is roughly 30% of this weight. This means the average mature hickory tree produces 30 pounds of nut meat. In 2016, the Wisconsin Department of Natural Resources (DNR) estimated there are 3.6 million hickory trees in Wisconsin. Using this information, Wisconsin hickory trees produce roughly 108 million pounds of nut meat.

If the goal of Wisconsin hickory nut producers is to capture 10% of the Pecan and Walnut market or $16.4 million in sales, this is within reach. Using an estimated price of $20 per pound for hickory nuts, the hickory producer must control .76% of the hickory nut meat produced by Wisconsin hickory trees.

Price

According to Statista, the average retail price of nuts in the United States has grown every year since 2011 to 2016. Almonds have seen a 48% increase in price over that time, while walnuts have seen 35% and pecans have seen a 14% increase. These statistics can be found visualized in the appendix. The USDA data shows promising signs for the tree nut market as well. They reported a smaller yield for California walnut crop, but strong overall demand kept grower prices from falling. In-shell prices went from $0.84 per pound to $0.91 per pound. Global sales were reported to increase in 2016/17, particularly for the in-shell nuts. Total U.S. exports of in-shell walnuts for the 2016/17 season through July were up 48%. Meanwhile, pecans saw a production increase during the 2016/17 season. Utilized in-shell products were up 8% in production from the previous year. Bigger crops were seen from Georgia and Texas, who supplied more than half of the U.S. crop. The report also stated that pecan prices were up to $2.59 per pound on average compared to $2.20 per pound last year, an indication of strong consumer demand with the increased supply. With higher prices and a larger crop, the value of the 2016/17 production for pecans reached an all-time high at $696.8 million.

Setting the price for hickory nuts will be a challenge and important to the success of the industry. Three potential price ranges exist based on supply level. Essentially, the more hickory nuts that would be sold, the lower the price will be to reach the desired demand. With only one or a small number of collection facilities, it may be possible to have price set near $30 per pound.

This estimate comes from an experienced individual seller who gathers shagbark hickory nuts in Wisconsin and sells them online via rayshickorynuts.com. The price is listed at $30, and the site requires the customer to additionally pay shipping. The site has been updated within the past year, indicating a level of success that is able to sustain the off-hand business and website. The smaller the number of collection facilities and desired sales numbers, the more likely a company would be to replicate this pricing structure, which would lead to higher revenue per pound at the sacrifice of much more supply. Remaining a smaller industry would likely yield the best results for rural development as employees could be offered higher pay.

The further the industry approaches to mass commercialization, the lower the price would become to properly adjust for a desired level of demand. At peak commercialization, the price would more likely resemble that found at major retailers and grocery stores, such as Hammons black walnuts at $12.25 per pound or similar prices on nuts.com. We can see this relationship through the demand elasticities provided earlier in the report. Luckily, hickory may be on the lower end of the price sensitivity scale, potentially giving it more leeway to keep prices higher than that of other nuts. This level of price will only be available with lower costs, which will only be achievable through the economies of scale principle as the industry grows. Unskilled labor would likely transition more towards automation and cost-cutting practices would be employed throughout the company to establish better margins at the lower price. This path is more attuned for a profit-seeking venture and would likely see less impact on rural economic development.

In the beginning stages of selling, the goal price per pound of shelled hickory nuts should be $20.00. This estimate was attained from a comparison between the retail prices of widely sold nuts such as almonds and black walnuts versus the higher price of small-time sellers like Ray's Hickory Nuts. It is also based partially off anecdotal experience from known distributors and

farmers markets. This is a retail price that will be attainable only by acting as the seller of the nuts. If a wholesale route is desired, price levels will drop, and margins may fall depending on corresponding cost adjustments.

Costs

When building a business, costs such as depreciation, taxes and interest are not perfectly predicted as there are many options available to the business. For this analysis, these costs will be forgone in order to focus on the actual cost faced by a hickory nut producer. Because hickory nuts are not commercially produced, there is no standard model to follow. As such, this analysis will borrow knowledge and best practices from other tree nut farming industries.

Marketing Costs

Marketing costs for raising public awareness regarding hickory nuts may end up representing a large portion of costs, depending on the market situation. Regardless whether actual advertising is put in place to promote the nuts, it is implied that there will be some cost to selling the nuts to people, whether that involves creating a website, setting up a contract with a distributor, or going to venues such as farmers markets to sell the product in person. This will represent a major challenge for the operation and requires further exploration.

Building

The first known cost considered is establishing a location for the business. One location would serve as a collecting, shelling, and storage area. In this location, you would need enough room for shelling employees, refrigeration for nutmeat, room for hulling equipment, and room for packaging preparation. A commercial building of around 5,000 square feet might be appropriate, and prices for such property are estimated to be $225,000.

Labor

The second cost, and potentially most significant for this analysis, is wages. Since the current plan is to help the rural community and economically develop areas with unskilled workers who may have been displaced from their jobs, employee wages for our cost analysis are placed slightly above that of minimum wage, at about $9 an hour. Depending on the success of the business, the wage scale could be improved even more. Based on production projections, total wages in a year would equal close to $705,600. This wage estimate was gathered from the estimated production per hour of a worker versus the desired pounds of nutmeat sold. An estimated 40 employees will be needed to collect, clean, and prepare the nuts for sale. They will work 49 weeks of the year at 40 hours per week making $9/hour in the current projections.

Equipment

The next type of cost category is equipment. In the beginning stages of production and collection, hulling and shelling can be expensive. However, as production reaches commercial levels of automation and machine-operated options are implemented, the process becomes more cost effective. Pecan producers use nets placed on the base of the tree to collect the nuts that fall from the tree. This can be done with hickory trees as well. Workers will go around to the bottom of the trees and collect the nuts in buckets to be processed. The estimated cost of this equipment is $17,500.

Shelling of the hickory nuts will be done using handheld shellers that will represent a small cost to the business. Because hickory nuts have a good natural flavor, they do not need extra processing. After they are hulled and shelled, they can be packed for sale. An area for cost and time savings can be taken advantage of here. As the nuts are being shelled they should be packed immediately. In the commercial production setting, packing can be done as the nuts are shelled. This type of packing equipment costs an estimated $1,000.

Storage

Refrigerating or freezing the nuts after shelling and packaging of the nuts will also be a factor in the business. For tree nut production walk-in refrigerators are typically used. This type of storage allows for the most cost-effective means of keeping the most product safe and fresh. The estimated cost of an industrial walk in refrigerator is $10,000.

Business Feasibility

Using the information above, as well as production from estimates from Pecan and Walnut farms, this section will provide a business feasibility analysis. The target of 100,000 pounds of shelled nutmeat was based on the estimates from Hammons Black Walnuts, which sees an average harvest of 20 million pounds of nuts from about 200 collection sites, which gives an average of around 100,000 pounds collected per site. The 100,000 pounds is a suggested production goal when compared to full-scale tree nut farms. Table 1 breaks down the costs and revenue discussed in the previous sections.

The business feasibility analysis uses a high starting price based on the assumption that hickory nuts can be sold at a premium based on quality and variety of choice. The high price is also assumed to be feasible in the beginning due to the small amount of nut supply penetration initially, but as supply of hickory nuts increases, it is expected that price will fall as it approaches equilibrium. The labor estimate is divided down to the per-unit cost as a way of showing its dependence on scale.

Table 1 shows, based on the comparative price from pecans and full-scale production of 100,000 pounds of nut meat, producing and selling hickory nuts is a feasible business endeavor. Based on these estimates, return on investment may be seen immediately. However, these estimates do not include utility cost of running the machinery, marketing and other miscellaneous

business operations expenses. This analysis also assumes nuts can be gathered from already-mature hickory trees, and that the business created can serve as collector, producer, and seller.

Table 1: Business Feasibility	
Revenue	($)
Price Per Pound	20.00
Pounds of Nut Meat	100,000
Gross Profit	2,000,000
Unit Costs	
Labor	7.05
Packaging	1.00
Total Unit Cost	8.05
Cost of Goods Sold	805,000
Profit	1,195,000
Fixed Costs	
Marketing Costs	?
Collection Equipment	17,500
Cleaning and Sorting Equipment	11,000
Packaging Equipment	1,000
Storing Equipment	10,000
Building	225,000
Total Fixed Costs	263,500 + Marketing Costs

Recommendations

The purpose of this report was to evaluate the business feasibility of a hickory-based industry in Wisconsin. With an estimated 108 million pounds of hickory nuts produced by Wisconsin hickory trees each year, there is a large amount of market potential. Also, the fact that hickory nuts have a good natural favor and do not need much more processing than dehulling, shelling, and cleaning is attractive. However, the largest deterrent for commercial production is the 20- to 30-year growing period until trees reach maturity. The Fiscal and Economic Research Center (FERC) at UW-Whitewater recommends establishing a consumer base, purchasing existing

land with hickory trees, then developing a stand-alone farm. Each of these recommendations is explained below.

Short-Term Market Testing

To establish a customer base, hobbyists and the Wisconsin Hickory Association should continue their local outreach. To understand the market for hickory nuts, the FERC recommends those interested should attempt to sell hickory nuts at local farmers markets and other community events. To do so, the collection, cleaning, and packaging can be done by entrepreneurs using nut gatherers and nut crackers. This will allow the Hickory Association to understand the market and get the word out about this type of tree nut. It will also begin to establish customers that can be called on later.

Medium-Term Market Growth

Once a base of customers has been established and market interest is growing, land with existing hickory trees should be purchased. During this time, production similar to the business feasibility discussed above can be used without the need to plant and grow new hickory trees. It is important to know how much nut meat can be produced with a given piece of land. To repeat, on average, a mature hickory tree can produce 30 pounds of nut meat a year. If an area has 1,000 trees, it should be expected the harvest will be 30,000 pounds of nut meat. Also, during this time, connections with local grocery stores and other food retailers should be made. The appendix has a detailed outline for marketing once this stage has been reached.

Long-Term Market Commercialization

Mass production of hickory nuts has already been indicated as a long and uncertain process. The beginning of maturity is a significant wait for an investment, and market projections for that long of a time disparity will be weak and uncertain. Furthermore, the initial capital investment will be immense if the plan is to purchase farmland and grow the trees in an organized matter. However,

using the previous two recommendations, market uncertainty and capital investment can be reduced. Once hickory nuts are established and a trend of repeat customers has been established, investment in a long-term plan should be made. This investment would be purchasing more farm land and planting hickory trees with the intent of growing them to maturity.

This recommendation would lead to a business similar to Hammons, which utilizes hundreds of collection facilities to produce their nut supply for the season. With this method, the supply will be drawn from already existing hickory trees, requiring no grace period to begin widespread selling. Whether or not this is viable depends on the success of the beginning collection centers.

Conclusion

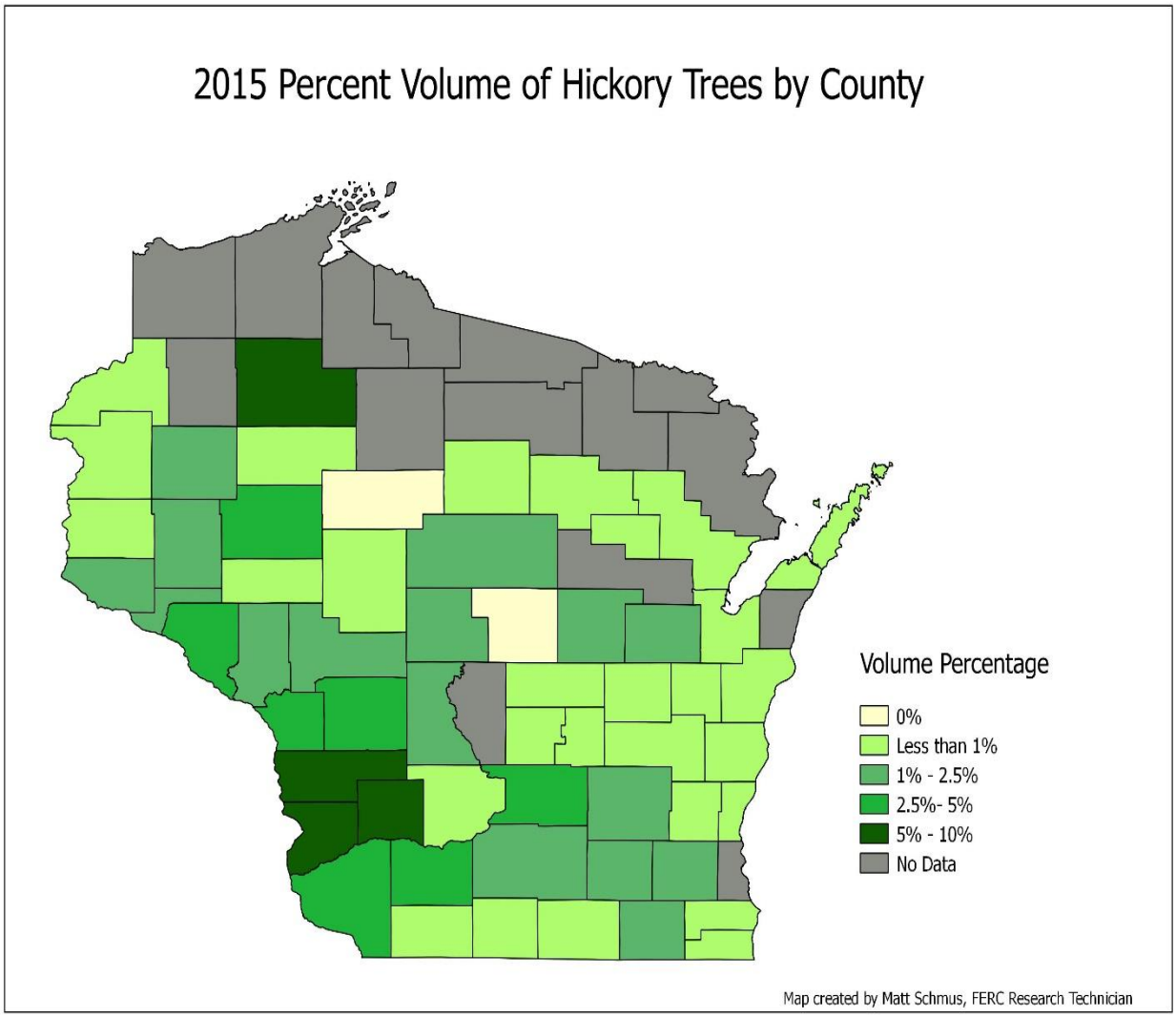
The Fiscal and Economic Research Center at UW-Whitewater recommends a short-term and long-term business strategy. The short-term strategy will focus on existing hickory tree yields using a slower collection strategy and establishing a community around hickory. Focusing on this scenario is vital to the process. The success of the initial selling period will be used to predict whether the long-term commercialization of hickory products will be feasible based on real results as opposed to relying on theories.

Starting slowly by establishing one collection center using existing hickory trees can be used to determine expansionary procedure from there. This is suggested due to the time commitment and capital investment required for long-term commercialization. Thus, the early stages of the process are limited to hickory nuts as to preserve the current number of hickories for steady crop yield, but more options will become available in the long term for product categories and uses of the nut. By using the collection-facility strategy, rural economic development can be

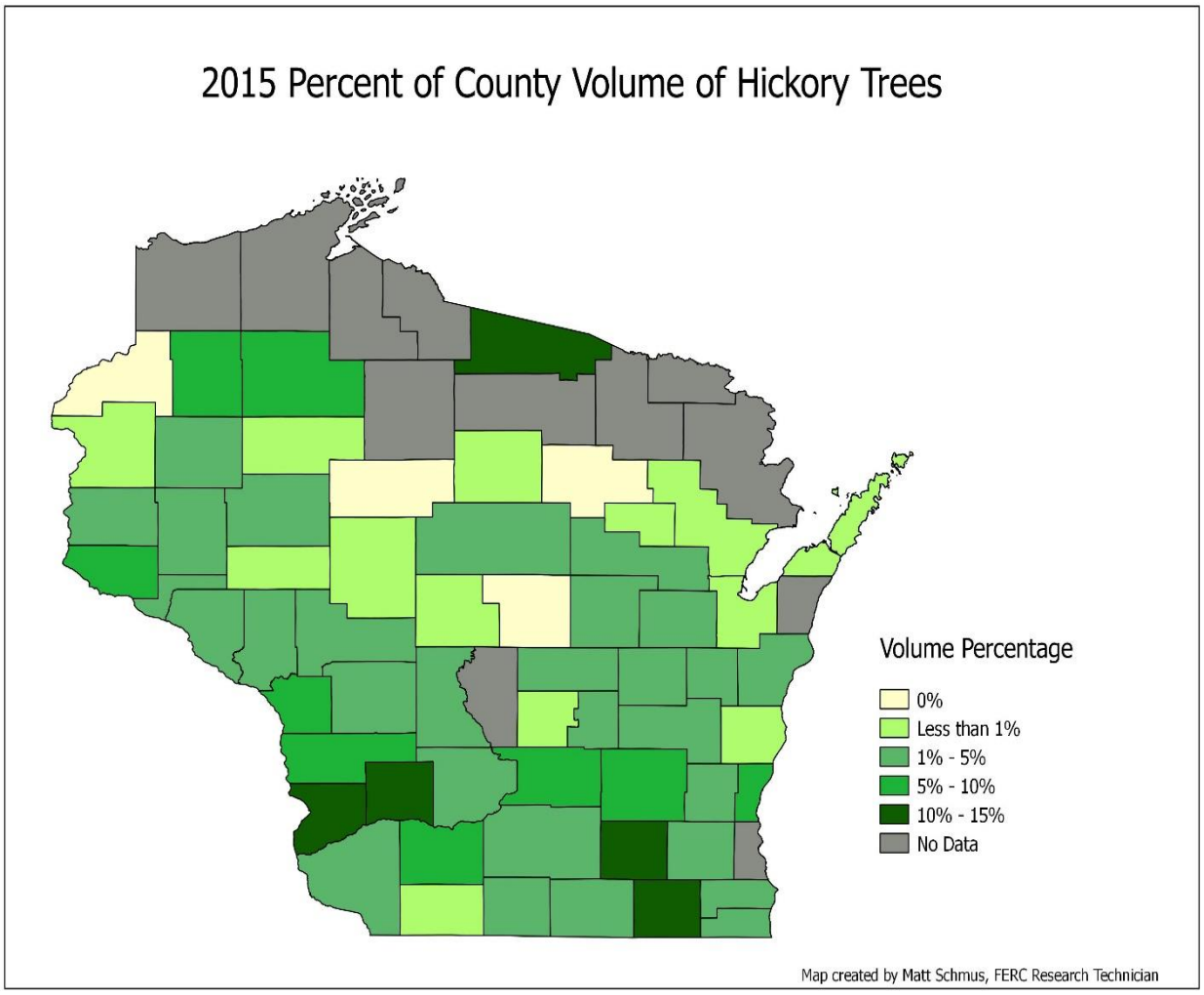
realized through the hiring of many displaced, unskilled laborers. Hickory nuts should be marketed as a superior, natural substitute to pecans or walnuts. If consumers adapt to the new supply of available hickory nuts, the possibility of commercialization will materialize.

Maps of Hickories in Wisconsin

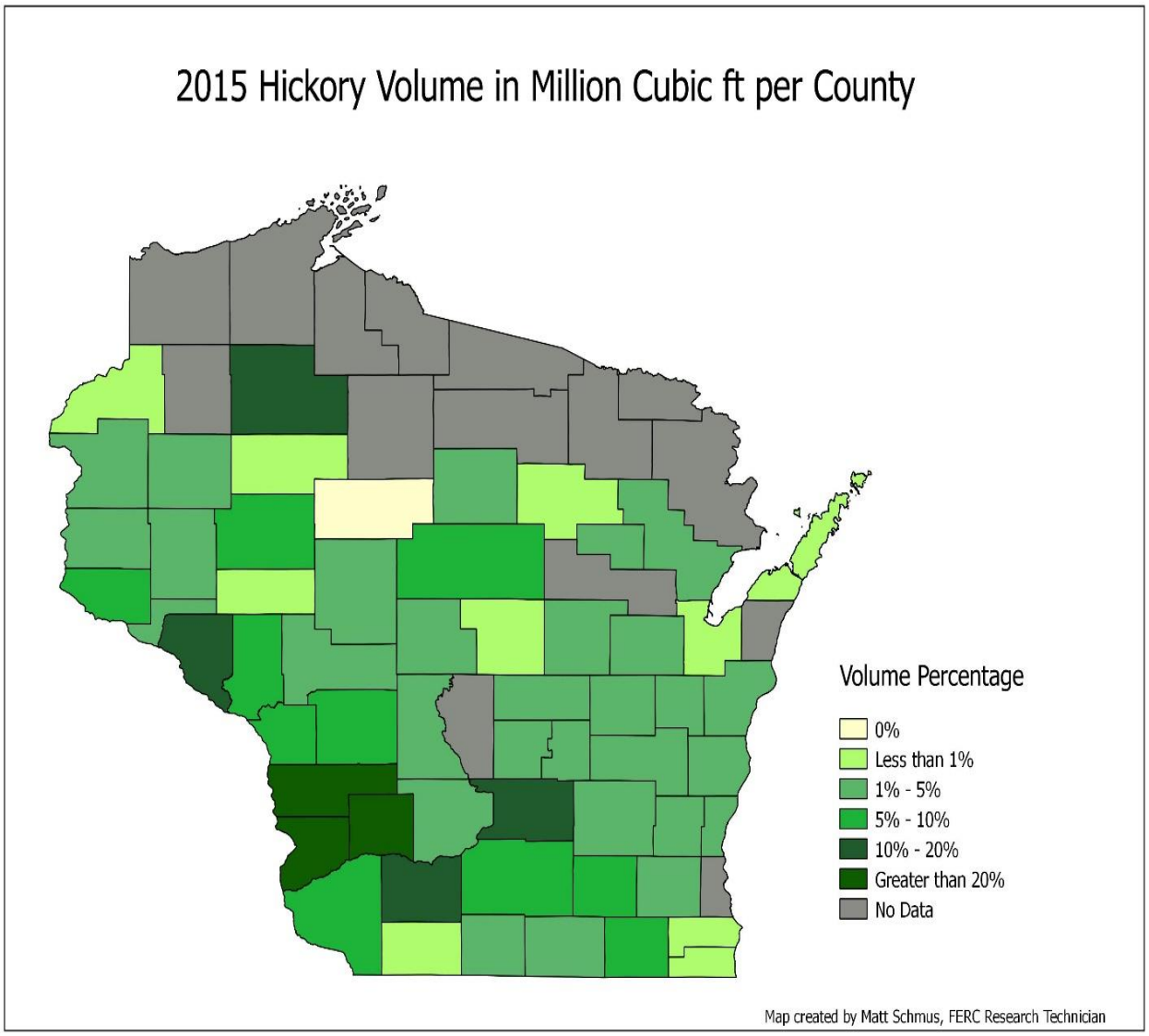
Map 1: 2015 Percent Volume of Hickory Trees by County



Map 2: 2015 Percent of County Volume of Hickory Trees

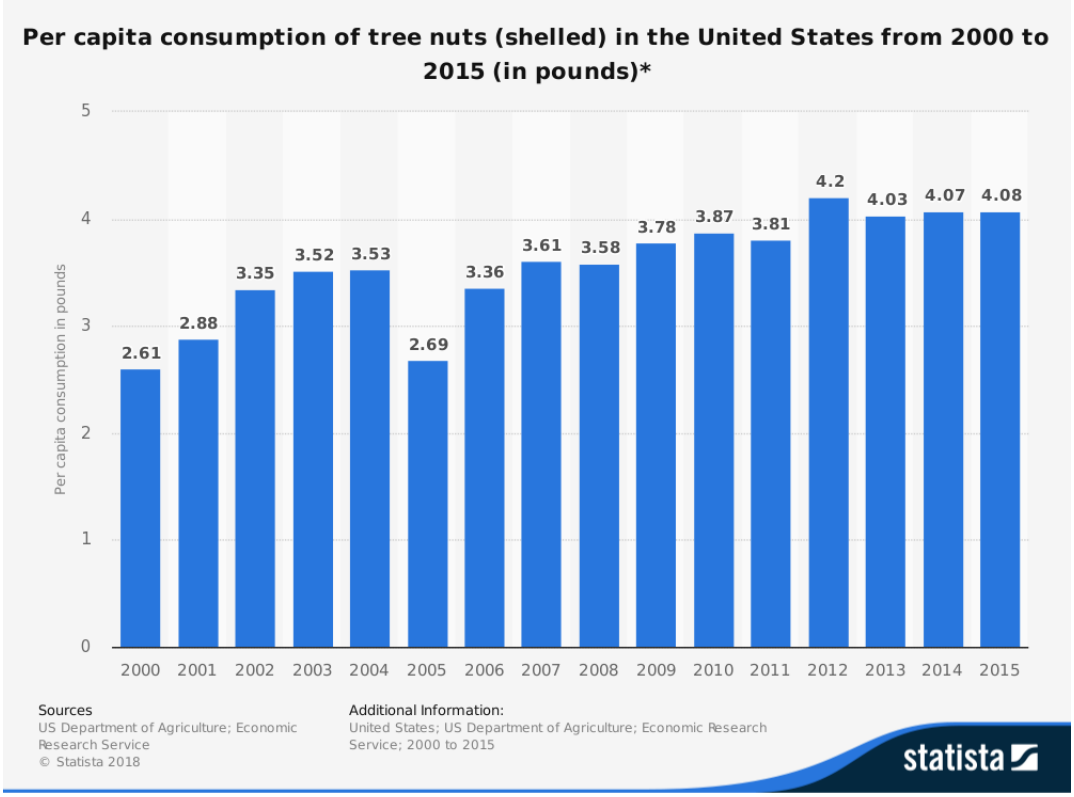


Map 3: 2015 Hickory Volume in Million Cubic Feet Per County

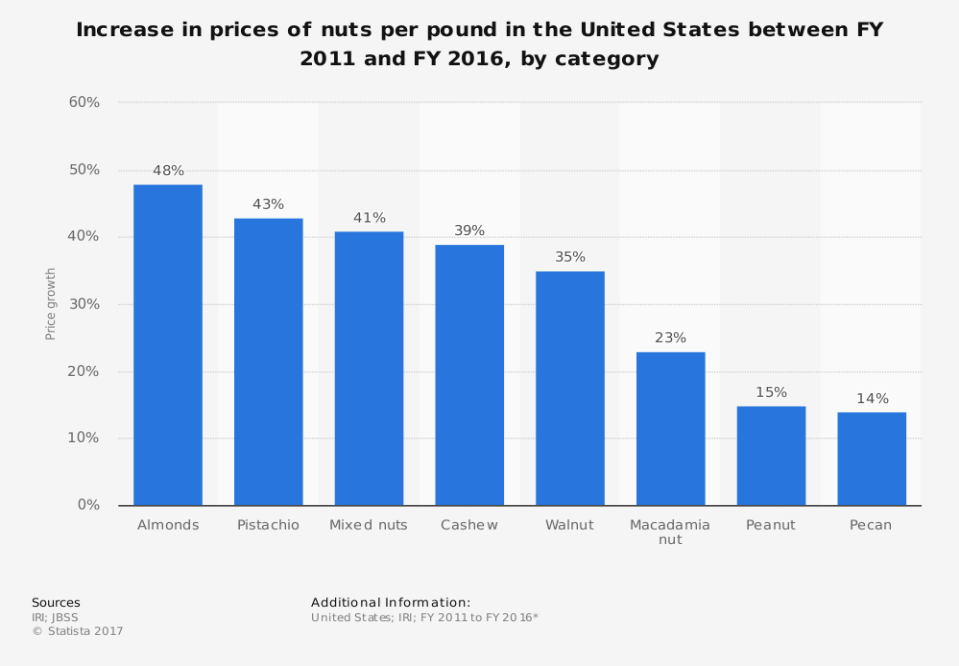


Appendix

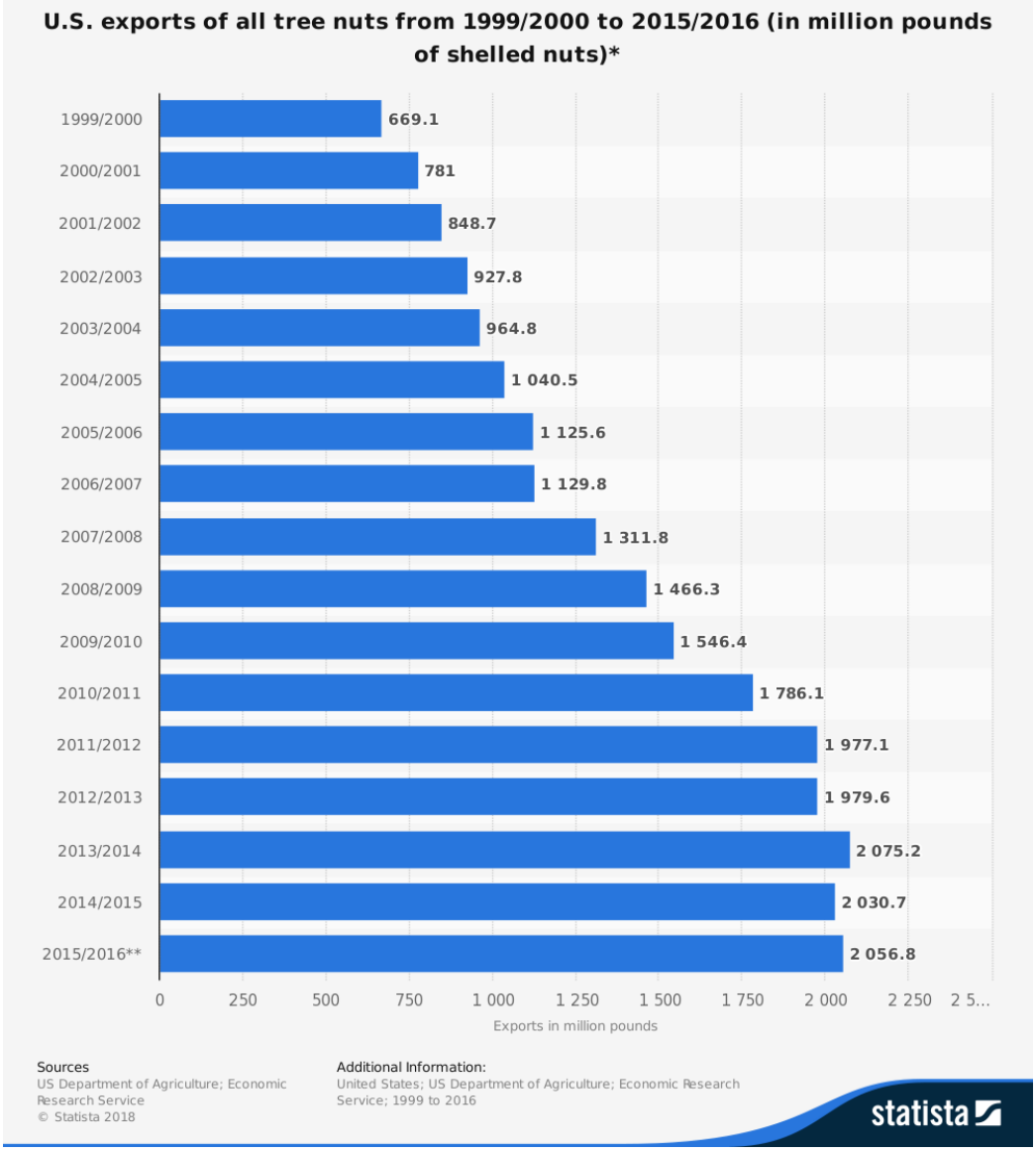
A1.



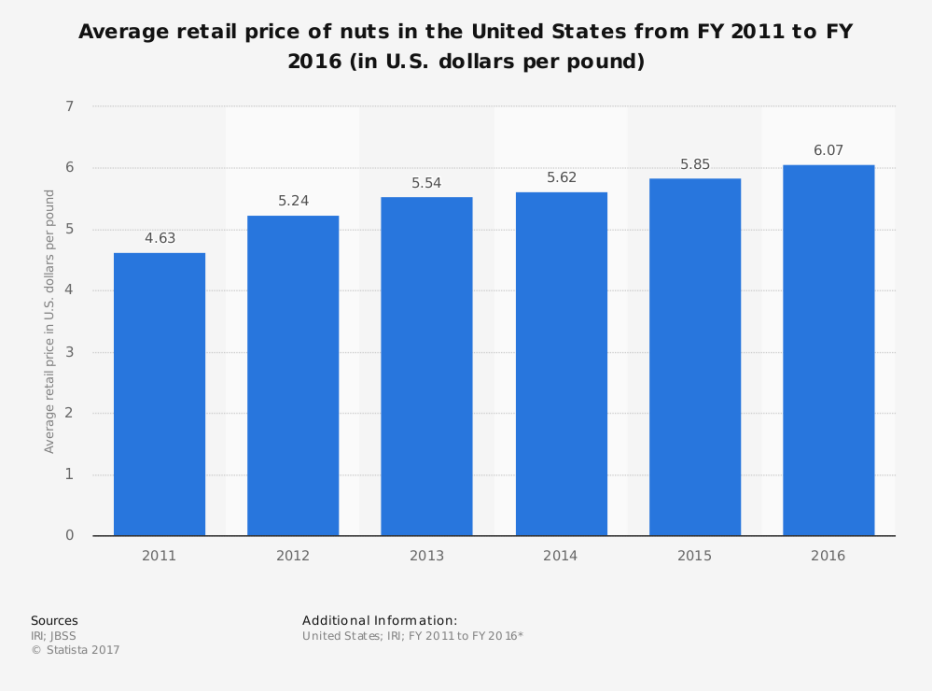
A2.



A3.


U.S. exports of all tree nuts from 1999/2000 to 2015/2016 (in million pounds of shelled nuts)*
1999/2000
669.1
2000/2001
781
2001/2002
848.7
2002/2003
927.8
2003/2004
964.8
2004/2005
1 040.5
2005/2006
1 125.6
2006/2007
1 129.8
2007/2008
1 311.8
2008/2009
1 466.3
2009/2010
1 546.4
2010/2011
1 786.1
2011/2012
1 977.1
2012/2013
1 979.6
2013/2014
2 075.2
2014/2015
2 030.7
2015/2016**
2 056.8
0
250
500
750
1 000
1 250
1 500
1 750
2 000
2 250
2 5...
Exports in million pounds
Sources
US Department of Agriculture; Economic Research Service
© Statista 2018
Additional Information:
United States; US Department of Agriculture; Economic Research Service; 1999 to 2016
statista

A4.



Best Marketing Practices

A report from UW-Madison provides some insight about what business strategies may be optimal for tree nuts. The research they conducted suggests that small-scale, value-added nut processors should stay away from the commodity market to avoid direct competition with larger companies. Furthermore, the businesses they interviewed advised building markets first, then using the momentum to build the brand up. Differentiation is vital to the process, which we believe is possible with hickory nuts.

Current strategy is to promote production from rural Wisconsin areas and encourage sustainable growth, which should also be a part of the marketing plan. Capitalizing on the established brand of Wisconsin as a wholesome producer of dairy products and other agricultural items will be essential to the branding of the hickory nuts. Wisconsin is seen as a blue-collar region, which can be used to the advantage of the marketer when used correctly. In combination with the

image of Wisconsin in the branding of the hickory nuts, the health benefits and organic nature of the nuts should be clearly communicated through advertising to attract a dedicated core consumer group of people who appreciate healthy, organic, and regionally-based foods.

An additional differentiation strategy to be considered is the positioning of the hickory nut as a superior nut to pecans and walnuts. Hickory nuts are often considered to be the better tasting nuts when compared to walnuts, and if it holds true for enough consumers, a premium may be able to be placed on the nuts to help increase margins. Premiums have often been placed on goods that carry the title of "organic", "locally-grown", and healthier alternatives to traditional snacks. Whole Foods, Inc. demonstrated this perhaps better than anyone, and many products followed suit. The hickory nut could fall into this category to give an advantage over near-substitutes in the tree nut market.

Economic Impact

Using the IMPLAN economic analysis system provides insight into the potential impact one hickory nut business could have. As alluded to before, the numbers are subject to the performance of the business and ending price decisions, but with a $2,000,000 sales target, the business would result in $3.87 million in total economic impact. The state and local taxes created could total around $150,000, and approximately 11 full-time jobs could be indirectly created within the local economy totaling near $590,000 in wages depending on final hours worked and wage level. Some industries that may feel this effect include restaurants and agricultural support businesses.