

BROKEN ARROW CELLARS HOPS

TASTE NEBRASKA!



IMPERIAL FFA
MARKET PLAN TEAM

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Client's Current Status

Broken Arrow Cellars (BAC) is a family owned business located 1/4 mile northwest of Imperial, Nebraska. In 2002, Broken Arrow Cellars began with two plots of land, a two acre patch on the winery site, and two acres approximately four miles north of Imperial. BAC started producing locally grown grapes to be used in their wine production but have also sold grapes to other area wineries. BAC also sells their wines in-house as well as through local liquor stores. On site, BAC includes an open pavilion and a building with a tasting room, a loft, and a banquet room. Altogether this building seats 268 people. Besides their vineyards, BAC also has approximately 1,000 acres of farm ground. BAC owns a 6x12 enclosed trailer that is equipped with an insulated A/C cooler. BAC makes nine house wines and brews nine different craft beers. BAC buys all of the hops used in their beer from non-local hop producers; Mack Marketing believes that between the demand for locally grown hops in Nebraska and the ability BAC has to produce hops, it is a viable and realistic opportunity to add value to their current business by producing and marketing five acres of Nebraska-grown hops.

Analysis of the Market

Industry Trends

The Hops Industry is a growing industry as it has a projected total of 221.7 million lbs harvested worldwide in 2016, a 15.7% increase from 2015. (Hop Growers of America)

As of 2015, 98% of hops were produced in Washington, Idaho, and Oregon, equalling a total amount of 43,987 acres of hops (Table 1). In 2015, Nebraska only produced 12 acres of hops. According the University of Nebraska Lincoln (UNL), hop production across the nation must grow an additional 11,000 to 11,500 acres to meet the demands of the microbrewing industry. Further research by UNL discovered that in Nebraska, craft breweries have produced 33,939 barrels per year having an economic impact of \$424 million in 2014 alone.

Craft breweries across the state of Nebraska have shown interest in purchasing home-grown hops for their beer. Jim Engelbart, the production manager of Empyrean Brewing Company in Lincoln, Nebraska, Nebraska's first craft brewpub, stated, "We would like to purchase 50% to 60% of our hops locally versus from the Pacific Northwest." (Table 2). Engelbart is not alone; Spilker Ales, Blue Blood Brewing, and Infusion have also expressed interest in brewing with Nebraska-grown hops. With a vibrant microbrewing industry and the increasing

Table 1: U.S. Hops Production

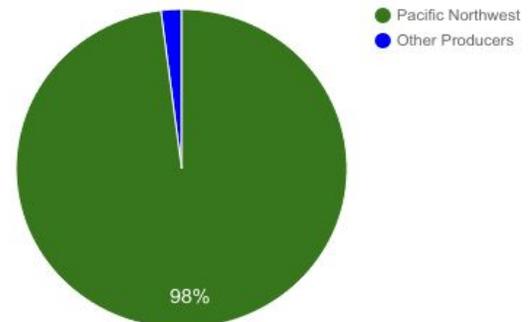
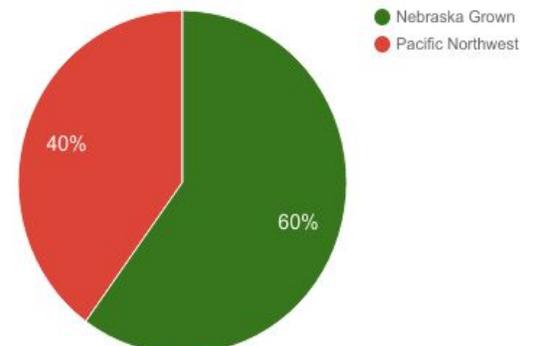


Table 2: Englebart's Vision



number of Nebraska craft brewers wanting to buy local hops, this creates an opportunity for Broken Arrow Cellars to produce and market Nebraska-grown hops.

Buyer Profile & Behavior

To find out more about potential customers, market research was conducted. MACK Marketing conducted surveys via phone to Nebraska craft breweries. Out of 37 Nebraska craft breweries, 14 participated in the survey. The survey was used to gain information related to the buyer profile, the hop business, and attitudes toward Nebraska-grown hops. After analyzing the results of the survey, several viable opportunities were brought to BAC’s attention.

92% of Nebraska’s craft breweries purchase a majority of their hops from the Pacific Northwest; however, 79% would like to purchase some, if not all, their hops from Nebraska producers (See graph 1). The craft brewers of Nebraska not only indicated that they would want Nebraska-grown hops, 63% expressed that they believed brewing with Nebraska hops would give them a marketing advantage (Table 3). Another significant result was 43% of craft breweries indicated that they were willing to pay \$12+ per pound for Nebraska-grown hops (See graph 2). When looking at the volume of hops brewed among the 14 Nebraska craft brewers, the average brewery used 1,233 lbs of hops per year. 86% of the craft breweries surveyed said that they will be increasing the amount of hops used in the coming years.

Table 1

Would Breweries Buy Nebraskan Hops?

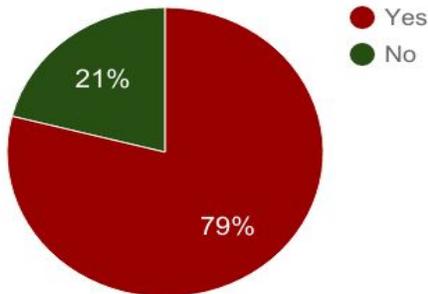


Table 2

Pricing Indicated by Breweries

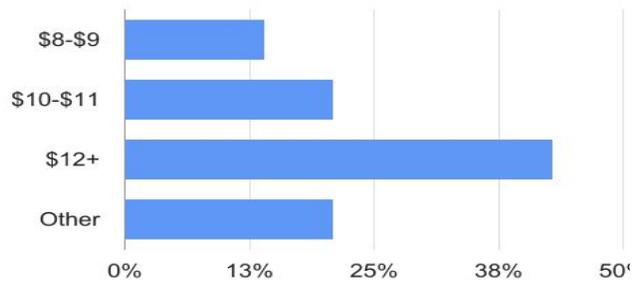


Table 3

Nebraska Hops Marketing Advantage

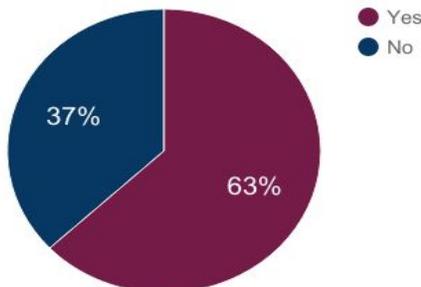
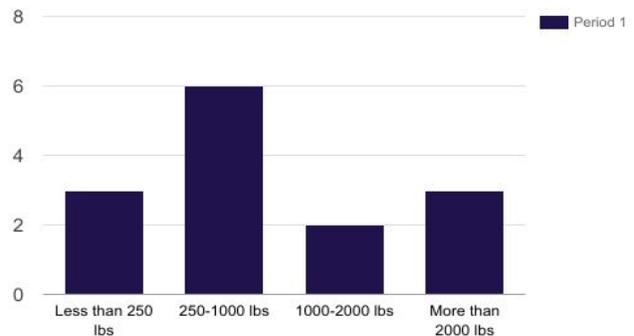


Table 4

Pounds of Hops per Year



Competitors' SWOT Analysis - Pacific Northwest

Strengths	Weakness	Opportunities	Threats
Experience of growing and selling hops, have mature hops, offer a variety of hops	Cannot offer locally grown hops to Nebraska craft breweries	The number of craft breweries are increasing, thus the demand for hops is increasing	More craft breweries want to buy locally grown hops
Have trust built with craft breweries	Communication with Nebraska craft brewers		May not be able to keep up with the demand of hops nationally

Broken Arrow Cellars' SWOT Analysis

Strengths	Weakness	Opportunity	Threats
Sufficient land	Lack of name recognition as hops producer and distributor	More Nebraska craft breweries want locally grown hops	Severe weather such as high winds, hail, and snow
Member of the Nebraska Tourism Passport	Lack of experience in growing hops	University of Nebraska-Lincoln Hops Seminar	

Business Proposition

Key Planning Assumptions

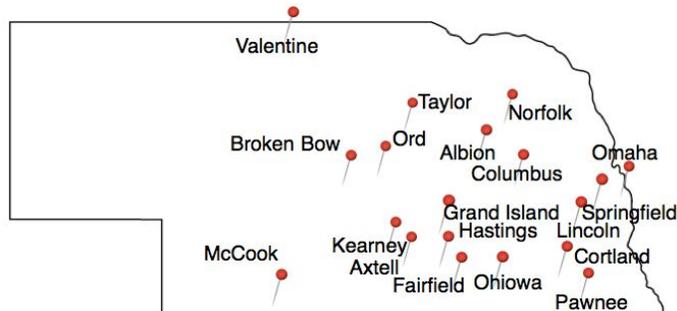
1. There is demand for Nebraska-grown hops within Nebraska craft breweries.
2. Nebraska craft brewers will pay a premium price for quality Nebraska-grown hops.
3. Brewing with Nebraska produced hops will give beers a marketing advantage.
4. Nebraska's climate is suitable for growing hops.
5. Broken Arrow Cellars has the necessary land, water, and man-labor to produce hops.
6. Market data indicates continued growth in the microbrewing industry.

Goals

1. Establish a hop yard by May of 2018.
2. Market to 10 craft breweries throughout the state by the end of 2019.
3. Market to at least 25 craft breweries throughout the state by the end of 2021.
4. By the end of 2021, make a profit of \$10,000 per acre.

Target Market

The target market includes approximately 37 craft breweries in 19 cities across Nebraska.



Mission Statement

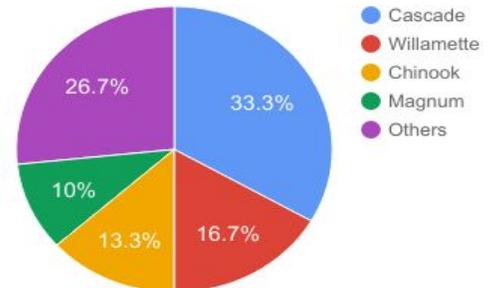
Broken Arrow Cellars will be a premiere producer of hops for the Nebraska craft breweries.

Strategies and Action Plan

Product Attributes

- Nebraska-grown
- Personal contact with growers
- Varieties of Cascade, Willamette, and Chinook
 - Three most popular varieties amongst Nebraska craft brewers.
 - Varieties offer flavors of citrus-spice, floral, and citrus-pine.
 - Varieties produce different levels of alpha-acids (Chinook-13, Cascade-7, Willamette- 4.5)
- Offer pelletized hops

Desired Variety



Price Structure

Broken Arrow Cellars' hops will be priced at \$12 per pound.

Distribution and Sales

Broken Arrow Cellars will strictly focus on establishing a hops yard, constructing the necessary buildings, and getting the equipment purchased and in place during year one. BAC will establish five acres of hops, which will be in full production by year four. After harvesting, the hops will be pelletized using a roller driven pellet mill. Once the hops are pelletized, the hops will be packaged into 11 lb bricks, using vacuum seal packaging equipment and kept in a cool room to guarantee freshness of the hops. BAC will ship their hops to craft breweries via UPS.



Year Two: Hops will be at 50% production, producing 3,750 lbs. BAC will annually be using 35 lbs of hops used for BAC house beers. The remaining 3,715 lbs will be processed, pelletized, packaged, and marketed to 10 craft breweries in the cities of McCook, Kearney, Broken Bow, Lincoln (5), and Omaha (2)

Year Three: BAC hops will be at 75% production, yielding 5,625 lbs of hops harvested. In year three, BAC will expand their clientele by 10 craft breweries located in the cities of Omaha (3), Hastings, Grand Island, Ord, Taylor, Axtell, Columbus, and Albion.

Year Four: Production will yield an expected harvest of 7,500 lbs. BAC will continue their expansion by adding five craft breweries to their clientele. This includes breweries in the cities of Bennington, Springfield, Norfolk, Valentine, and Cortland.

Place

Hops will be sold in two ways by BAC.

1. **Direct Sales Channel-** Hops will be sold through a BAC sales representative, or BAC can be contacted by craft breweries to order hops. Orders will be filled and shipped via UPS to the craft breweries.

Promotion

- **Business Meetings-** The first and foremost method of promoting is personally meeting with the brewers and introducing them to BAC as a Nebraska hops producer. Establishing relationships with craft breweries will, in turn, build trust between craft breweries and BAC.
- **Website-** Being able to purchase hops straight from a website will be an added convenience for craft breweries. Broken Arrow's website will provide contact information such as a phone number and email address. The website should also include pictures of the vineyard and hops yard and information about both. The website should also provide a means for craft brewers to purchase BAC hops online. It is important that this website is mobile and desktop friendly. A study conducted by ComScore reported that approximately 75% of online adults access the internet using multiple platforms. This is up from 68% from 2014.
- **Field Day-** Just before harvest, craft brewers from across the state will be invited to come experience BAC's Hop yard. There will be a presentation about the hop yard to discuss the hop quality and production. Afterwards, BAC will provide a catered meal, and serve Broken Arrow Cellars beer made with Broken Arrow Cellar hops. The purpose of this field day is to grow relationships with Nebraska craft breweries and give them an opportunity to experience the product.
- **Nebraska Hop Growers Association (NHGA)-** BAC will join NHGA to be involved with hop growers and craft breweries throughout the state of Nebraska. It is important to join an association like this one because it gives BAC opportunities to enhance networking and broaden knowledge about hops production.

- **Great Nebraska Beer Fest-** A stand at this trade show gives craft brewers an opportunity to sample beer made with their hops. This can give craft breweries a knowledge about BAC's hops.
- **Nebraska Hop Cup-** A competition, which is hosted by Nebraska Brewing Company, puts beers brewed with only Nebraska-grown hops head to head in a 'People's Choice' competition. Annually, 38% of Nebraska craft breweries participate in the Hop Cup. This is an opportunity to let people sample beer brewed with BAC's hops. This is also an opportunity for craft brewers to experience and sample brewing with BAC hops.

Positioning

Broken Arrow Cellars is forging the market niche for Nebraska-grown hops in Nebraska craft breweries. BAC will be positioning itself as one of Nebraska's four quality hops producers. BAC will position itself using the following slogan to promote their Nebraska-grown hops to craft breweries of Nebraska. "Taste Nebraska!"

Evaluation

Broken Arrow Cellars will need to evaluate the success of their hops business focusing on three areas: profitability, hop yield, and customer satisfaction.

Area	Method	Contingency
Profit	Method 1: Analyze income statements monthly.	If BAC fails to meet its profit goals, they will look at marketing to breweries outside of Nebraska.
Yield	<p>Method 1: Testing of soil samples, to ensure the right mixtures of nitrogen, potassium, phosphorus, and a pH level between 6 and 8.</p> <p>Method 2: Monitor plant growth weekly.</p>	If the hops plants are not producing expected yields, they will contact a hops expert to inspect the plants, diagnose the problem, and prescribe solutions.
Customer Satisfaction	<p>Method 1: Hold conference calls, with clients, to gather input about strengths and weaknesses of BAC Hops.</p> <p>Method 2: Inspect hops and machines daily during processing season to ensure high quality hops.</p>	If breweries are not satisfied, BAC will look at common suggestions and make feasible changes.

INCOME	2018	2019	2020	2021
Hops	\$0	45,000	67,500	90,000
Total Income	\$0.00	\$45,000.00	\$67,500.00	\$90,000.00
EXPENSES				
Loan Payments				
Building Loan	\$8,059.50	\$8,059.50	\$8,059.50	\$8,059.50
Equipment Loan	\$14,196.34	\$14,196.34	\$14,196.34	\$14,196.34
Operating Loan	\$6,481.92	\$6,481.92	\$6,481.92	\$6,481.92
Total Loan Payments	\$28,737.76	\$28,737.76	\$28,737.76	\$28,737.76
Advertising				
Field Day	\$0.00	\$1,480.00	\$1,480.00	\$1,480.00
Nebraska Hop Growers Association	\$75.00	\$75.00	\$75.00	\$75.00
Nebraska Hop Cup	\$0.00	\$25.00	\$25.00	\$25.00
Website	\$1,200.00	\$1,200.00	\$1,200.00	\$1,200.00
Hop Labels	\$6.00	\$6.00	\$6.00	\$6.00
Great Nebraska Beer Fest	\$0.00	\$150.00	\$150.00	\$150.00
Total Advertising	\$1,281.00	\$2,936.00	\$2,936.00	\$2,936.00
Production Costs				
Fertilizer & Pesticides	\$650.00	\$875.00	\$875.00	\$875.00
Vacuum Sealer	\$36.00	\$0.00	\$36.00	\$0.00
Packaging Bags	\$0.00	\$660.00	\$857.00	\$1,155.00
Miscellaneous	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Labor	\$5,350.00	\$2,035.00	\$2,436.00	\$2,860.00
Fuel	\$500.00	\$500.00	\$500.00	\$500.00
Insurance	\$190.80	\$190.80	\$190.80	\$190.80
Total Production Costs	\$7,726.80	\$5,260.80	\$5,894.80	\$6,580.80
Total Expenses	\$37,745.56	\$36,934.56	\$37,568.56	\$38,254.56
Profit	(\$37,745.56)	\$8,065.44	\$29,931.44	\$51,745.44

Expenses Covered by Loan	
Poles	\$17,350.00
Earth Anchors	\$3,445.00
Wire	\$5,000.00
Drip Irrigation System	\$3,900.00
Hop Harvester	\$10,000.00
Pelletizer	\$2,000.00
Hop Plants	\$23,000.00
Insulated 40x60 Building	\$45,000.00
Grinder	\$87.00
720 Dryer	\$250.00
Industrial Fan	\$1,000.00
Total	\$111,032.00

