



Microbrewery

BUSINESS PLAN

JUNIPER CREEK BREWING COMPANY

777 Main St.
Troy, MI 48333
February 1995

This business plan for a microbrewery explains the development of a brewery from the ground up. It explains elements of the brewing process, including the brewhouse, barrels, keg filler, and malt, hops, and other supplies; the necessary machinery and laboratory equipment; expenses, such as start-up, insurance, rent, and overhead; the need for a skilled brewmaster and the attendant costs; and the other crucial components of production. It also features considerations of market segment, competition, and regulations.

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- MANAGEMENT
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STATEMENT OF PURPOSE

The Juniper Creek Brewing Company is a small scale microbrewery that will be located in Troy, Michigan. The brewery will occupy the back 3600 square feet of 777 Main Street. This is a new business in the start-up phase. Recent changes in Michigan law have made microbrewing legal. Due to certain tax advantages available only to microbrewers, it is profitable as well. By definition a microbrewer is one that brews less than 20,000 barrels per year. Juniper Creek Brewery plans to start production at 3120 barrels and with phased expansion grow to 7500 barrels over five years.

Initial plans are to produce one product that shall be an amber-style ale. This beer will be sold in kegs to a local distributor for resale to the tri-county draught beer market. In-house sales of beer as well as take-out sales are also planned. Tours and sampling will be offered.

The long-term goals of the Juniper Creek Brewing Company are to slowly add capacity up to the constraints of the site (7500 BBL). A second product is planned once the market has accepted the initial ale offering. This second product will be a lager beer. Specialty and seasonal brews will also be crafted once the business is up



and running. These types of beers sell quickly and are usually quite popular. In addition, specialty "house" beers will be brewed and labeled for local taverns.

COMPANY DESCRIPTION

Juniper Creek Brewing Company is a small scale microbrewery located in Troy, Michigan. It occupies a one-floor, light-industrial building at 777 Main Street. The building is divided into three business sections. Juniper Creek Brewery will occupy the back section, which is approximately 3600 square feet and faces Water Street. The brewery will produce up to 3120 barrels of beer per year in its initial design. There are the capacity and space available to expand to 7500 barrels per year. Initial plans are to produce one product that shall be an amber-style ale.

The Juniper Creek Brewing Company is incorporated in the State of Michigan as a sub-chapter S Corporation. The Internal Revenue Service has officially accepted Juniper Creek Brewery's election as an S-Corporation as of January 10, 1994. The corporation is currently in the investigation stage by the State Liquor Control Commission. In addition, application materials have been sent to the Bureau of Alcohol, Tobacco, and Firearms. Their investigation has yet to commence. These two investigations, once complete will result in the issuance of a Brewers License and a Brewers Notice respectively.

Key vendors have been identified and quotes obtained. Cost figures for equipment, inventory, building renovation, and labor have been identified and figured into the business plan. Production costs have been calculated, product pricing has been estimated, and profit potential has been approximated. A tentative lease has been written up, but it is not yet signed.

The legal name of the corporation is Juniper Creek Brewing Company. The company was incorporated in the State of Michigan in 1993. The corporation has also registered a DBA or "Doing Business As" under "Juniper Creek Brewery". The Internal Revenue Service has issued an Employer Identification Number which is 67-2488907, issued 10/5/93.

FUNDING

The project will be funded with primarily debt financing. A loan will be sought through First of Michigan Bank, Troy. First of Michigan will finance approximately 75% of the project, with Juniper Creek Brewery financing the remainder. The start-up project costs, which includes capital equipment, initial inventory, building renovations, and working capital, total approximately \$250,000.

Amount of Funds Sought : \$250,000

Financial Summary

Basic Use of Funds Sought:

- To acquire brewing equipment, supplies, and inventory
- To reconstruct portions of the building and bring in the necessary utilities.
- To make the building meet local zoning requirements.
- To provide working capital.
- To purchase initial inventory (1 month supply or 60 barrels).

PRODUCTS

The Juniper Creek Brewing Company will initially produce one product. This will be an ale product, along the lines of an Amber Ale. The beer will be produced continuously throughout the year, with a targeted weekly



production of 60 barrels. This will result in two weekly batch runs of 30 barrels each. Bottling and kegging operations will be done on nonbrewing days. The initial yearly volume of the brewery will be 3120 BBL with room for expansion to 7500.

The brewery will be open to the public for tours and sampling. The hours of operation will be from 9:00 a.m. to 5:00 p.m. Beer will be offered for sale on the premises as well as take-out. Kegged beer will be sold to Johnson & Sons Distributors for further sale to retail outlets. Sales will be in half barrels, quarter barrels, cases of bottles, and six-packs.

MARKET SEGMENT

The brewery has targeted the tri-county area surrounding Troy (Oakland, Macomb, and Wayne) as the main market area for sales. The population demographic of this area is well-suited to beer sales.

It is important to note that the microbrewing industry is now in its second decade. As of June 1993 there were more than 320 micro- and pub-breweries in the United States. The breakdown more precisely is 110 microbreweries and 210 brewpubs. These combined producers of craft-brewed beer account for only 0.6% of domestic beer sales. Total U.S. beer sales were 180,770,000 barrels of which 1,204,000 barrels were from microbreweries, reflecting growth of 41% for the microbreweries over the large domestic brewers. It is important to note the failure rate for microbreweries is 1 in 4 whereas for small business start-ups it is 1 in 2.

In a ranking of the top five U.S. counties with populations of 1 million or more, based on per capita income, Oakland county ranks third highest. The per capita income for Oakland county is \$21,125. In addition, Oakland county is ranked first in Michigan in per capita income. Oakland county is ranked as the 28th largest county in the United States with a population of 1,083,592, according to the 1990 census.

Beerkeg sales of domestic beer from the large breweries, specifically Anheuser-Busch, Miller Brewing, and Coors vary in price, as often beer specials and promotions are underway as these companies vie for the mass market consumer. Their sales prices reflect this in generally a lower price than a microbrewed beer.

Miller Brewing Company commonly sells 1/2 barrels for \$50.00 a piece. This includes their flagship brands, Miller and Miller Lite, as well as Genuine Draft. Beer prices have increased in 1994 with half-kegs of Budweiser now selling at \$63.00 per half barrel.

"Old Detroit," a microbrewed beer from Detroit-Mackinac, is selling for \$62.00 per half-keg, while Frankenmuth's Pilsner is at \$76.00 per half-barrel. Frankenmuth is Michigan's largest and most well-known microbrewery. The Juniper Creek Brewery is targeting the bar/restaurant draught beer sales.

COMPETITION

The largest competitive advantage for the microbrewery is the demographic population shift to Oakland county, coupled with the rise of the Troy area as a retail and dining magnet. The Troy area boasts some of the areas finest eating and drinking establishments with more of the same coming into the area. Juniper Creek Brewing Company will be highly visible with its product in most area bars and nightclubs, as well as in retail stores.

The sheer uniqueness of the business coupled with the great superiority of the product quality and flavor all contribute towards a winning formula for success. On either coast of the United States brewpubs and microbreweries are growing and succeeding at a rapid clip due to demands of the public, which is looking for superior flavor, high quality, and moderate price.

LOCATION

The microbrewery has decided to locate in Troy, in the heart of Oakland county. This was a purposeful



decision. In Oakland County, in 1993, 19,000 jobs were created, representing 2 out of every 3 new jobs in the state. In addition, 60% of all foreign money invested in Michigan is in Oakland county. One third of all the research and development money is in this county. There are 36,000 businesses in Oakland county, including 200 of the Fortune 500. The population shift and pursuant demand for goods and services is in full swing in the Troy area.

The Chrysler Tech Center alone has 7000 jobs, with General Motors putting 4000 jobs into Pontiac. The I-75 corridor is becoming know as "Automation alley" with all the robotics, plastics, computers, and R&D companies located there. Over 51% of state robotic sales emanate from Oakland county.

The business success here is due to the diversity of government services, the availability of land and office space, and the competitive costs to do business. Michigan is leading all northern industrial states in terms of economic growth as well.

Oakland University is investing 38.5 million dollars in their new science and technology center. Oakland Community College will design tailor-made training programs for existing and newly-created high tech businesses to attract them. There are 53,000 students currently enrolled in Oakland University.

The quality of life here is highly sought after, with over 450 lakes; 100 golf courses; 87,000 acres of parkland; ski resorts; the Pistons; the Lions; and Cranbrook & museums.

Major firms represented in Oakland County

Michigan National Corp.
Kmart Corp.
Handleman Company
Alexander Hamilton
Dupont Automotive
General Motors
Perry Drugs Stores
Kelly Services
Thorn Apple Valley
PMH Corp.
Ameritech Publishing
Masco
Chrysler Corp.
Arbor Drugs
The Budd Company
Guardian Alarm
ACO Hardware

MARKETING

Juniper Creek Brewing Company will market their products through two different avenues. The first will focus on the sales of kegged beer to draught accounts throughout the Metro Detroit area. The marketing in this area involves the use of Point-of-Sale (POS) materials such as posters, table tents, tap handles, buttons, tee-shirts, etc. In the initial product roll-out, extensive use of our distributor Johnson & Sons Inc.'s experience and account knowledge will be made.

Area bars and restaurants will be provided POS materials appropriate to their ability to sell the product. Tap handles will also be provided. Tap handles cost approximately \$10 each, and will be purchased through Taps 'R' Us, Window Lake, Wisconsin. Posters and table tents range in price based on quantities ordered. These will be procured through a local printer.



The second marketing thrust will be for sales of bottled beer through retail outlets. Once again, POS materials are necessary, although with differing needs. Posters and shelf markers, as well as posters and vinyl stickers will be used. These will also be procured through a local printer.

MANAGEMENT

The microbrewery will be managed by Kate Bannister. Ms. Bannister will be in charge of production planning, purchasing, inventory control, quality control and accounts payable. Ms. Bannister has experience in all of the above areas through her working background in business. She will be assisted by Patrick O'Connor, her spouse.

Sales will be handled by Patrick O'Connor, who has extensive management experience. Mr. O'Connor has a B.S. degree in Engineering from Boston University as well as a Masters degree in Business Administration from Michigan State University. He is also a member of the Institute for Brewing Studies. The I.B.S. is an educational association for micro- and pub-brewers. He has attended the Siebel Institute of Technology's "Microbrewery and Pub Brewery Operations Course" Nov. 15-19, 1993, in Chicago. This class was given in a working brewery for an entire week.

Operations will be handled jointly by management and the brewmaster. The brewmaster will be hired in the near future. The person for the job will be a graduate from one of the nations brewing schools who has worked under a Master brewmaster for 2-4 years. Candidates are always available, as there are more brewers looking for work than there are openings. Juniper Creek Brewery will have the luxury of being very selective to identify the perfect candidate for the job and for the right price. The brewhouse supplier has offered to assist in the interviewing process. Candidates are available through a resume service offered by the Institute for Brewing Studies and through trade journal advertising.

FINANCE

Cash Requirements

Cash requirements for start-up include the following elements

- Working Capital
- Percentage of capitalization costs
- Initial Inventories

Overhead Costs

Overhead costs are made up of the following elements

Rent

The brewery is renting a portion of an 11,000 square foot building located at 777 Main St., Troy, Michigan. The brewery will rent 3600 square feet of the available floor space on a single floor. The building is semi-industrial in nature with the proper utilities necessary for the successful operation of a microbrewery.

The brewery will share the building with two other established businesses. In the first third of the building, which fronts Main Street, is occupied by Troy Hardware. The middle section of the building is occupied by The High Rise Bakery. It is anticipated that brewery operations will not be affected by any of the other businesses' operations, nor will the brewery affect the other businesses.

The lease is intended to function and operate as a triple net lease, with the brewery responsible for its pro rata portion of real estate taxes, insurance, and operating expenses. The approximate cost of the lease is \$2,000 per month inclusive.

Источник бизнес-плана: <http://www.referenceforbusiness.com>



Insurance

In addition to the insurance included in the lease, the brewery is responsible for certain business insurances. These additional insurances are liability (includes State mandated liquor liability), workmans' compensation, and contents insurance. The policy will through the Sheister & Sheister Agency, Troy, Michigan at a yearly cost of \$6,000.

Start-up Costs

Start-up costs include improvements made to the building which are necessary for brewing operations. This includes bringing water, electric, and natural gas into the building to where the brewhouse equipment will be located. In addition, floor drains and waste water handling improvements are necessary. The build-out costs are broken down into a labor component and a supply component.

Initial inventories for one month of brewing are also included in the start-up costs. Malt, hops, yeast, and cleaning supplies are included in this amount. After start-up, inventory costs will be handled on a month-to-month basis.

Skilled Trades

Electrical : For wiring of pumps, solenoids, temperature controller, natural gas burner control panel, and refrigeration unit. Calvin Electrical, Oakland, Michigan will be used. Approximate cost is under \$1,000.

Natural Gas : Installation of a natural gas line to the Mash/Brew Kettle at a flow rate of 12 cubic feet per minute at minimum 5 inch water column. Westchester Mechanical, Oakland, Michigan will be used at an approximate cost under \$500.

Water : Bring in city water to brewhouse at a flow rate of 25 gallons per minute at a minimum of 30 PSI. Westchester Mechanical will do this at the same time as the gas line is installed.

Rigger : Material handling equipment to unload and set tanks in place. Cambridge Supplies, Oak Park, Michigan will provide these services for under \$1,000.

Gas : Oxygen, carbon dioxide, and controls need to be provided. The gas canisters and controls will be provided by CJO Gas. Oxygen tanks are for lease for \$100 plus \$11 per fill (501b). Carbon dioxide tanks are for lease at \$160 plus \$18 per fill (501b.)

HVAC : The burner exhaust and steam vents must be vented to the outside through the roof. This work will be done by Martin Heating and Cooling at an approximate cost of \$1,000.

Refrigeration System : A walk-in refrigeration system is necessary for keeping the kegged beer cold. The walk-in is 20' by 25', 10.5' tall., and cooled by a 4 HP 230 V three phase motor. This includes an 84" door. Glycol is used to chill the unit. The entire system will be installed by Pontiac Refrigeration, Pontiac, Michigan.

Start-Up Cost Summary

Build-Out

Electrical	\$1000
Plumbing	\$1000
HVAC	\$1000
Rigger	\$1000
Refrigeration	\$2000
Walk-in	\$10,000
Total	\$16,000

Build-Out

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Plumbing	\$1000



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HVAC	\$1000
Rigger	\$1000
Refrigeration	\$2000
Walk-in	\$10,000
Total	\$16,000

Capital Equipment

Brewhouse	\$175,000
Barrels	\$13,950
Keg Filler	\$13,750
Lab Equipment	\$2,000

Total	\$204,700
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Starting Inventory

Barley Malt (1 month supply)	\$3600
Hops (1 month supply)	\$240
Yeast	\$500

Total	\$4340
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Malt 60 bags/wk x 4 weeks @ \$15.00 per 50 lb bag
Hops 1.25 boxes/wk x 4 weeks @ \$45.00 per 44 lb box

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Hops 1.25 boxes/wk × 4 weeks @ \$45.00 per 44 lb box

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Lab Equipment	\$2,000
Total	\$204,700

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Hops (1 month supply)	\$240
Yeast	\$500
Total	\$4340

Wagecosts: Brewmaster

Base pay \$30,000 year

FICA(7.65%)	\$2295
FUTA(3.80%)	\$1,140
W/C(5.25%)	\$1,575

Total	\$35,010
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Brewmaster will cost approximately \$3000 per month.

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Total	\$35,010



PRODUCTION

The beer will be produced in a 15 barrel brewhouse supplied by JV Northwest, Wilsonville, Oregon. The various parts of the brewhouse are described as follows:

The first step in brewing is to mix the cracked malted barley with hot water in the mash/lauter tun, which produces "mash." The mash tun is a double-walled vessel crafted from polished stainless steel with fiberglass insulation and a top double door. A side manway makes grain removal easy. Standard features include a vee wire screen, complete drainage, a temperature well and sparging fittings. A sweet, clear liquid called "wort" is filtered out of the mash and transferred to the brewkettle.

The brewkettle is constructed similarly to the mash tun, featuring double-wall stainless steel with fiberglass insulation. The wort in the kettle is brought to a rolling boil and some hops are added early to provide a mild bitterness. Other hops (finishing hops) are added later to give a fine aroma. The hot wort is cooled to fermentation temperature through a heat exchanger. The heat removed from the wort is transferred to water, which is stored in a large tank called a hot liquor tank. This hot water is used constantly over and over again, either in cleaning, sterilization, or to fill the mash tun.

The cold wort is transferred to the fermented. Yeast is added and fermentation begins. Fermenters are also known as uni-tanks. The fermenters Juniper Creek Brewery will use are double-wall stainless steel with dished heads and conical bottoms. The cooling jacket has automatic temperature control. The uni-tanks have sample ports as well as temperature controls, a pressure manifold, and adjustable legs. During fermentation the brewers yeast transforms the sweet wort into a flavorful solution containing alcohol and carbon dioxide. After fermentation, the green beer is aged to develop its final smooth taste.

Once the beer is aged properly, in our case after 14 days, it is filtered to remove yeast and to clarify the beer. After filtration the finished beer is stored in a bright beer tank (serving tank or tax tank) until it is ready to be served, bottled, or kegged. At this point the beer is at the height of its freshness and full of flavor.

Capital Equipment

Brewhouse

The brewhouse is supplied by JV Northwest, Wilsonville, Oregon. JV Northwest is one of the leading suppliers of brewing equipment throughout the United States and Canada. The brewhouse will be a 15-barrel turnkey system complete with all tanks, hoses, fittings, controls, and gauges to brew 3120 barrels of ale per year. Each additional fermentation tank adds 780 barrels more production. Expansion can reach 7500 barrels per year with the 15 barrel brewkettle. Juniper Creek Brewery plans expansion in year 2 as well as year 3. The initial cost of the brewhouse is \$175,000.

JV Northwest includes in their sales price extensive consultation services. These services include working with all trade groups by phone as well as a site visit. In addition, in consultation with our brewmaster, JVNW will provide formulation for up to four brands of beer or ale. Formulation will include instructions for wort production, yeasting, control of fermentation, aging of beer, etc. Additionally, up to five days of start-up assistance by a qualified brewer will be provided.

Barrels

Barrels will be bought from SABCO Industries, Toledo, Ohio. Initial plans are to buy 500 barrels, which will provide a four-week barrel supply when brewing to capacity. Cost per barrel is \$27.90 for a standard Hoff-Stevens keg. Total barrel cost is \$13,950.



Keg Filler

A semi-automatic single valve keg washing, sanitizing, and filling machine will be bought from I.D. Distributions, Thousand Oaks, California. Called the Mini-King, it is a complete washer/sterilizing/racking machine complete with detergent and water supply system, include dual compartment tank, stainless steel pumps, heater dosing system, and controls. The machine can fill up to 30 half kegs per hour, therefore it is estimated kegging operations for 60 barrels weekly production will take a minimum of 4 hours, and most likely complete in one working day. The cost of the Mini-King is \$13,750.

Laboratory Equipment

The laboratory equipment necessary for proper testing and evaluation of the beer throughout the brewing and fermentation process includes the following items:

Microscope, for counting yeast cells.

Hydrometer, for measuring specific gravity.

PH meter, accurate to 0.01 of a unit, plus combination electrode suitable for use with wort and fermentation products.

Air tester

These will be purchased from Cole-Parmer Instrument Company, Niles, Illinois. Cost for the above, plus any incidental supplies, is approximately \$2000.

Supplies

Malt

Malted barley is the primary ingredient by which beer is produced. The malt will be supplied by Briess Malting Company, Chilton, Wisconsin. Briess is one of the national premier maltsters, with the ability to ensure timely delivery and consistent quality of the mal product.

Malt one packaged in 50lb. bags. Each brew will consume 15 bags. 60 bags will be used weekly at a cost of \$900/week, or in other terms, \$225 per brew.

Hops

Hops will be bought from John I. Haas and Company, Yakima, Washington. Like Briess maltsters, Haas and Company enjoys the reputation of being a national leader in hop production. The ingredient suppliers were chosen for their known reputations of timely delivery as well as consistent and known quality.

Each brew will use 7.5 lbs. of hops at a cost of \$15.00 per brew or \$60 per week.

Yeast & Additives

Yeast, beer clarifiers, stabilizers, finings, cleaning supplies, as well as laboratory and technical services will be purchased from J.E. Siebel Sons, Chicago, Illinois.

Cleansing and Sanitation

The proper cleaning and sanitation levels necessary to meet strict health department guidelines will be achieved through the use of Orasan, (previously Huwa-San). Orasan is a new, complex compound of highly concentrated oxygen carriers, stabilizing agents on an acid base, and synergistically acting trace elements. It is superior to chlorine in its ability to kill germs, is completely safe for human and animal consumption, and will not create adverse environmental conditions. The advantages to using Orasan is no unpleasant taste; no odor;



disinfects by separation of oxygen; assisted by trace elements; long-term effect; single application for long distance water conduits; not harmful to pipes and installations; water doesn't foam in it; and it is heat resistant and efficacious in hot water. Orasan is supplied by International Connection, Inc., Kewaskum, Wisconsin.

Filters

Sheet filters will be used to filter the fresh beer. From one to two pad filters are used per barrel brewed, resulting in a cost of approximately \$0.80 - \$1.20 per barrel. This type of filtering is easy to operate, easy to clean and sanitize. It leaves no particulate matter in the beer and is suitable for aseptic filtration. Sheet filters will be obtained from Siebel Company, Chicago, Illinois.

REGULATIONS

Regulation of microbreweries is done in many ways. The Department of the Treasury through the Bureau of Alcohol, Tobacco, and Firearms regulates and collects Federal excise tax. The State of Michigan Liquor Control Commission collects state excise tax. In addition, the state Department of Agriculture inspects and licenses facilities. Local ordinances must be followed as well.

Labels

Michigan label requirements state that the brewery must adopt Federal Alcohol Administration labeling regulations. In Michigan this means the label cannot state the alcohol content. In addition, the product label must have federal approval. Product samples must be analyzed and a registration number of approval assigned before the product can be sold in the state. Once the label has federal approval, two samples of 12-ounce bottles must be submitted as well as one set of loose labels. A special provision requires the refund value of the container and the name of the state to be clearly indicated on the label.

Taxes & Deposits

A keg deposit is required upon sale of the keg. The deposit for Michigan is \$10. Bottle deposits are \$.10 per bottle.

The state beer tax rate for Michigan is \$6.30 per 31 gallon barrel. In-state brewers receive a rebate of tax on beer shipped outside of the state. The tax per case of 24 12oz. bottles is \$.4645.

Shipping Requirements

Beer may only be shipped from the brewery to a licensed wholesaler. If beer sales are made out-of-state, then a special seller's license is required. It costs \$1000. A bond is required of the brewery of either \$1000 or 1/2 of the total excise taxes paid in the last calendar year, whichever is greater. Shipping brewers must pay taxes twice monthly. In addition, a monthly report of shipments is required.

Wholesaler Relations

The brewery shall grant each wholesaler with a written agreement and designate a specific sales territory. The brewery may not fix, maintain, or establish the resale price. The wholesaler may not sell outside his sales territory. The brewery may not terminate, cancel, refuse to renew, or discontinue an agreement, except for good cause, and must afford the wholesaler 30 days in which to submit a plan of corrective action to comply with the agreement and an additional 90 days to cure such noncompliance.