



Prairie Fire Distillery Company Business Plan

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I. Executive Summary (Abstract)

Distilleries have been in operation in the United States since the arrival of the first European settlers in the 1600s. However, due to prohibition, in the early 20th century much of the small-scale micro-distilleries were forced out of business or underground leaving only large, industrial-scale distilleries to operate for most of the 20th century. (IBD) Recently, many states in the US including Kansas have relaxed regulations and reduced barriers of entry into the distilled spirits industry. This presents an opportunity to enter the distillery market and take advantage of growing demand for a variety of craft spirits. (Microdistillery License)

Prairie Fire Distillery Company's mission is to produce the highest quality spirits through innovative distilling techniques, exceptional ingredients, and a committed team of hardworking individuals. By diversifying our product offerings to match market trends our company will achieve operational profitability in its first year and cumulative profitability in three years. Distribution of our products will be handled by established Kansas liquor distributor Standard Beverage Corporation. An emphasis on marketing will be crucial to the success of the business as we establish our brand and attract loyal customers interested in a locally produced premium product at a competitive price point.

II. Market Analysis

A. Distillery Market Overview

Although the distillery industry managed muted growth over the past five years, it was not immune to the economic downturn. What kept the industry from declining during the recession was a trend toward premiumization: an increase in the consumption of higher-grade

liquors and spirits. An increase in the popularity of cocktails (over beer and wine) also drove demand for lower-quality industry products used for mixing drinks in bars and restaurants.

(IBIS) Industry estimates conclude that industry revenue increased at an average rate of 4.5% per year in the five years to 2012 - robust growth, especially given the poor consumer sentiment during the time. In 2012, revenue totaled \$9.4 billion and displayed growth of 2.6%.

(Euromonitor)

During the past five years, the popularity of cocktails has resulted in increased liquor and spirits consumption in social drinking locations like bars and nightclubs. Helped by advertising and promotion by major industry players, the role of the cocktail has expanded from just a drink into a symbol of class and sophistication. In response, customers have upgraded their purchases, moving from the bottom shelf toward premium tiers of quality. When disposable income dropped during the recession, instead of compromising the quality of the products they purchased, consumers saved money simply by drinking their preferred liquor and spirits at home.

(IBIS)

The industry is characterized by a moderate degree of concentration, with major players Diageo, Brown Foreman, Beam and Pernod Ricard accounting for 63.2% of domestic production. Acquisition activity and consumers' trust in their brands during the recession have supported the market share dominance of these players. Imports are anticipated to maintain their presence in the market, though, as the premiumization trend balances out the declining US dollar. (Euromonitor)

In 2013, the industry will benefit from stronger consumer sentiment and expanding household budgets. Premiumization is expected to become more widespread as spending increases, which will help drive up demand for higher-priced craft and imported spirits. Consequently, annualized 4.6% growth is projected to boost revenue to \$11.7 billion during the five years to 2017. (IBIS) Furthermore, distilleries are also projected to benefit from a growing population of legal drinkers and rising alcohol consumption.

B. Kansas Market Analysis

The state of Kansas passed legislation allowing microdistillery operation less than a year ago. Currently, there are 10 micro-distilleries in operation in the state with only four focusing on high quality spirits production. (Microdistillery License) This indicates low local competition from craft distillers leaving ample room to capitalize on an untapped market. As a Kansas resident and a member of the distilling community I can attest to the interest of customers in premium small-batch whiskey, and have observed many successful underground distillery operations. These businesses operate illegally and produce extremely small quantities of moonshine or whiskey, and are therefore incapable of satisfying market demand or generating substantial returns over time.

III. Distilling Equipment

A. Mash-Tun

The Mash-Tun is a large vessel with a false bottom that is designed to hold the mash (basic ingredients of the whiskey) at a constant or increasing temperature. Prairie Fire will utilize

a large 250 gallon mash-tun to increase batch efficiency and lessen the number of batches that must be made. Mash-tuns are often equipped with churning mechanical rakes on the inside to prevent starches in the grain from sticking together. The false bottom exists so that the wash created from the mash can be filtered out for lautering. (Craft Whiskey Distilling) Prairie Fire's mash-tun will be heated through a double steam jacket to insure consistent and gradual heating.

B. Lauter-Tun

The lauter-tun is a large vessel similar in size to the mash-tun that is used to rinse the grains with water in a process called sparging. There is a screen at the bottom of the vessel that allows the sweet wort to drain away from the grain as water is sprayed. The end result is a wort that has extracted all starches, sugars, and other flavors from the initial mash.

C. Wash Still

Prairie Fire's wash or stripping still is a pot still that is designed specifically for the purpose of converting the mash (fermented ingredients) to a form that can be used in the artisan still to produce the final product. The total capacity of the still is 300 gallons and will be used in the process of producing all of Prairie Fire's products. Wash stills are used to extract the best flavors of the mash while leaving behind unwanted impurities in the ingredients. (ADI Forums) After a single run in the wash still, the resulting liquor is prepared for distillation in the artisan still.

D. Artisan Still

Prairie Fire's artisan or spirits still is used to refine the product of the wash still into the final beverage. The still will have a 100 gallon capacity allowing for fine-tuning during the distilling process to insure quality control and consistency in our product. Our artisan still will be custom built combining a variety of methods and accessories to create a truly one of a kind apparatus to act as the engine of the business. By using bubble caps, a dephlegmator, agitators, and a swan neck construction Prairie Fire will be capable of producing the highest quality of spirits.

i. Swan Neck Construction/Ogee

The swan neck construction of many pot stills, including Prairie Fire's, is a design implementation that allows some of the flavors of the low-wine to pass over to the condenser, but narrow enough that it keeps unwanted bitterness and methanol from reaching the final product. An example of a swan neck is shown in Appendix F on a traditional pot still. This design, though subtle, is extremely effective in enhancing the quality and flavors of the resulting product. Along with a swan neck construction another design that is often used is the ogee. The ogee is a bubble-shaped chamber of a pot still that connects the swan neck to the pot and allows distillate to expand, condense, and fall back into the pot. (Craft Whiskey Distilling) The ogee effectively makes the distillate more refined by only letting the most pure ethanol through, and causing the rest of the distillate to condense and fall back into the bottom chamber of the still. An example of an ogee can also be found in Appendix F.

ii. Bubble Caps

Bubble caps, or theoretical plates, used in distillation are fabricated of circular steel plates and usually installed inside the column at intervals of about 60 to 75 cm (24 to 30 inches) up the height of the column. That spacing is chosen primarily for ease of installation and ease of access for future repair or maintenance. Bubble caps provide a place in the column of the still where distillate vapor and liquid meet and form an equilibrium. The effect is that less pure condensate will fall back down into the bottom of the still and more refined ethanol vapors are allowed to pass along to the condensation chamber to become the final product. (Craft Whiskey Distilling) Examples are shown in Appendix F.

iii. Dephlegmator

A dephlegmator is a device arranged for the partial condensation of a vapor stream within the still. The vapor stream flows vertically upwards and the condensate (condensed vapor) runs back down under the influence of gravity. The vapor stream and condensate thus move countercurrently and are in direct contact with each other. In addition to heat transfer between the vapor stream and cooling medium, mass is transferred between the rising vapor and falling condensate. Vapor leaving the device has become concentrated in the more volatile components, while the condensate is richer in the less volatile components. Technical jargon aside, a dephlegmator serves much the same purpose as a bubble cap in that it only allows the more refined distillate through to the final condenser, while less refined and less volatile elements fall back down into the main pot of the still. (ADI Forums) An example of a dephlegmator is shown in Appendix F.

iv. Agitator

An agitator is a component of the still that keeps the wort from becoming too hot and burning on the bottom of the lower chamber. A variety of different agitators exist that perform essentially the same function. The most common is a long rotor that can be operated from outside the still that churns the mash as heat is applied to the still. (ADI Forums) The churning of the high wine or wort prevents it from settling to the bottom of the still therefore preventing it from burning. (Craft Whiskey Distilling) The main motivation for using an agitator is to prevent the wort from burning and producing a bitter flavor that compromises the entire batch of whiskey. An agitator is shown in Appendix F.

IV. Distilling Process

A. Process Overview

The distilling process to be used at Prairie Fire Distillery Company can be separated into five distinct stages: (1) creating the mash and using the mash-tun and lauter-tun to create low-wine, (2) the distillation of the low-wine (mash) in the wash still, (3) the distillation of the high-wine of the wash still in the spirits still to produce the unaged whiskey, (4) placing the whiskey in new, charred oak barrels to be aged for a specific amount of time (does not apply to white whiskey), and (5) the bottling of the final product for distribution to retail stores. Each stage in the process is crucial in cultivating, maintaining, and enriching the flavors of the whiskey. It is important to note that consistency among the process is paramount to insure uniformity in the final product.

B. Mixing the Mash/Fermentation

Whiskey can be made from a blend of many types of malted barley or other grains but most are made from a single type. Before mashing the malts must be crushed. To properly crush malt requires a mill that is specifically designed for crushing malt. The use of other types of mills will grind the grain and pulverize the husks. Maintaining husk integrity is crucial because it helps to clarify the lauter runoff and keeps the lauter screen from plugging up. A proper grist has little flour and could be described as somewhat “grit like” with mostly intact husks. It is crucial for proper starch conversion to make sure the pH of your water is below 7. (Craft Whiskey Distilling) The optimal pH of a mash is 5.2. You can adjust the mash directly, but it is safer to adjust the dough in water in case you undershoot the pH which could compromise the mash. To start, adjust the pH of the dough in water to 6 and then see what the pH of the mash is once doughed in. The two best agents to adjust pH are food grade phosphoric or lactic acid and are inexpensive. After mixing the grains with water, a distiller must expose the yeast of the mash to oxygen to promote alcohol production. Having done this, the mash must then be sealed and heated to activate enzymes in the yeast. This is the process by which alcohol is made as yeast converts the sugar molecules into alcohol and carbon dioxide. (ADI Forums) When the mash-tun has been heated to the correct temperature the process of lautering can begin. The wort is drained through the false bottom of the lauter-tun while water is added to the top in a process called sparging. Sparging serves to extract additional sugars from the mash thereby making alcohol production more efficient. The end result of this process is a liquid called wash or low-wine that is about 8% ABV. This low-wine will then be transferred over to the wash still to be purified in the “beer-stripping” run.

C. Wash Distillation

The first step in distilling whiskey is to do a crude primary distillation of the wash called a beer-stripping run. The output of a beer-stripping run is called low-wine, and the low-wine is the input to the final distillation (i.e., the spirit run), which produces the finished whiskey. The beer-stripping runs will be done in a larger still with a 300 gallon capacity. The purpose of the beer-stripping is to concentrate the alcohol and the congeners in the wash into a substrate of about 35% ABV. To do a beer-stripping run, the 300-gallon still is loaded with 250 gallons of wash, and steam heat is applied to the boiler. (Craft Whiskey Distilling) When the wash comes to boil, the heat should be adjusted to deliver a fast flow rate into the receiver. For a stripping run, there is no need to separate out heads, hearts, and tails. The idea is to simply do a fast, crude primary distillation on the wash. Initially, the percent alcohol of the aggregate distillate in the receiver will be well over 80% ABV, but as the run progresses, the percentage of alcohol will drop. The beer-stripping is to be continued until the percentage of alcohol of the aggregate distillate is down to 25% ABV. At this point, the still-head temperature will be close to 212 degrees. When the distillate is down to 25% ABV, the still can be shut down and the residue drained. When the entire 250 gallons of wash has been stripped there will be a total of about 80 gallons or more of 35% ABV low-wine. (Craft Whiskey Distilling)

E. Spirit Distillation

The spirit run is the final distillation that produces the finished whiskey. It is done in a spirit still, and must be performed carefully at the proper heat level and flow rate, with the correct bubble-cap trays selected, and with special attention being paid to the begin- and end-cuts to ensure a proper separation of heads, hearts, and tails. To do a spirit run, the 100-gallon spirit still is loaded with 80 gallons of 35% ABV low-wine, the required bubble-cap trays are enabled,

steam heat is applied to the boiler, and the flow should be set to the heads receiver. When the wash comes to boil, the steam pressure should be adjusted to the correct level for running whiskey. Initially, the percent alcohol of the distillate will be close to 90% ABV and the spirit run will be in its heads phase. (Craft Whiskey Distilling)

The distillate will be set to flow into the heads receiver at this point. As the run progresses, the percent alcohol will gradually decrease. It is important to take a small sample of the distillate every few minutes to check for smell and taste. At first, the distillate will smell of acetaldehyde and other pungent chemical-like smells. When such smells are evident it is not necessary to taste the spirit. As the distillation continues, these smells will diminish and the percent alcohol will continue to decrease. After a short while, the chemical-like smell will no longer be evident, leaving only a faint taste of it. Shortly after this, the distillate will begin to taste of whiskey, and this flavor will become quite intense. This is the point where the distiller must begin-cut to the hearts phase, and set the flow into the hearts receiver. (IBD)

The percent alcohol at the begin-cut should be about 80% ABV. As the distillation progresses, the intense whiskey flavor will subside and the distillate will take on a smooth, pleasant sweetness. This pleasant sweetness will continue but as the percent alcohol decreases, it will become more and more diluted. As the tails phase approaches, bitterness will begin to creep into the flavor, and past a certain point, although the distillate will still have a sweetness to it, it will no longer taste pleasant. It is around this point that the distiller should end-cut to the tails phase, and set the flow into the tails receiver. At the end-cut, the percent alcohol will be between 60 and 65% ABV. (IBD)

An all-malt whiskey will usually end-cuts a little lower than a corn or rye whiskey. It is common for a corn whiskey to end-cut at 64 or 65% ABV and for an all-malt whiskey to end-cut at 60 or 61% ABV. The tails phase should be continued until the percent alcohol is about 10%. The still-head temperature will be about 212 degrees, and the still can be shut down and the residue drained. At this point, the heads and the tails can be combined and stored as “feints” for future use in creating mash. (ADI Forums) After the completion of the spirit run, you will have close to 20 gallons of hearts at around 70% ABV, and about 25 gallons of about 40% ABV feints. The 60 or so gallons of hearts are the finished whiskey and you will be ready to proceed to the barrel-aging step.

F. Barrelling/Aging

When new whiskey is freshly distilled, it is colorless and possesses only the flavor and aroma of the grain and the alcohol. It is from aging in charred oak barrels that the whiskey acquires its color, complexity, and richness of flavor. Aging is related to the chemical changes that take place as a result of reactions with the alcohol and congeners in the spirit through oxidation and extraction of chemicals from the oak. Factors affecting this aging process are: percent alcohol of the spirit; the level of charring of the oak; the temperature and humidity in the aging warehouse; the size of the barrel; and of course, the length of time the aging takes place.

While a high-alcohol concentration, such as 80%, extracts more of the beneficial compounds and color, it can also extract more tannin, which imparts too much astringency and harshness to the flavor. Additionally, the higher the alcohol content, the more water that has to be added to dilute it to bottling strength when the aging is finished. This also dilutes the barrel

contribution. So, it has been determined that for whiskey aging in new barrels, 55 to 65% ABV is the optimum strength to achieve a balance of barrel extraction and color, with lower tannins. The humidity in the warehouse also plays a significant role. High humidity usually results in a decrease in alcohol strength, and dry warehouses usually have the opposite effect. Humidity also affects the character of the final spirit. It has been found that the extraction of vanillin is better at low humidity. Low-humidity aging does generally result in spirits that have a better sensory quality. (Craft Whiskey Distilling)

Spirits aged in charred barrels mature faster than those aged in toasted or non-charred barrels. The charring process for new barrels definitely contributes to the aging of a spirit. It acts like an activated-carbon filter to adsorb sulfur compounds and it provides a passage for the spirit into the pores of the oak. In the United States a full-depth charring of barrels (1/8 inch) used to age American straight whiskey is predicated by law. Prairie Fire expects to use typical 53 gallon new American oak fully-charred barrels to age its rye and bourbon whiskeys. (Craft Whiskey Distilling)

F. Bottling

The bottling of whiskey does not require the same level of sterilization as for bottling wine or beer. At 40 percent alcohol, the whiskey is itself a disinfectant. However, it is very important that all the equipment and the bottles used are very clean. A good type of bottling machine for spirits is an inline overflow filler. This type of filler is suited to filling containers where a specific visible fill level is required. The overflow mechanism enables the device to fill the bottles much faster since there is a provision to return overflowing liquid to the reservoir,

thereby eliminating the need for a slow fill to achieve a specific level. Small inline overflow fillers are available at a very reasonable price that can fill several thousand bottles per day. Most craft distillers use a four head gravity filling machine or an enolmaster vacuum filling machine. (ADI Forums) Once the whiskey is diluted and filtered, it can be placed in the product tank of the bottling equipment, and bottled. It is interesting to note that once a spirit is diluted to bottling strength, it will actually improve with age for a few weeks. The reason for this is not fully understood, but research indicates that it takes a few weeks for all the different types of molecules to completely mix and diffuse themselves evenly throughout the substrate. Taking this into account, Prairie Fire will hold its aged whiskeys for two weeks before sending them to the distributor to insure the highest quality of flavor.

V. Product Offerings

A. Smokestack Lightning (White Whiskey)

Prairie Fire's first product to be introduced to the market is our Smokestack Lightning White Whiskey. White whiskey is a type of whiskey that is not aged and is ready for consumption immediately after production and bottling. The ingredients used are typical of traditional corn liquor with the addition of malted barley to provide a more even character. The corn used will be a variety of Golden Cross Bantam produced within the state. This variety of corn is relatively sweeter compared to other types and serves to soften the bite of the whiskey without detracting from the flavor that customers are accustomed to. The alcohol content is 40% ABV and the spirit is best served neat but can be used to substitute vodka in many cocktails. The price point will be \$22 per liter at retail locations, making the product attractive to many

consumers for its value. White whiskey has become a more common offering among microdistilleries across the United States for its popularity with “moonshine” enthusiasts who enjoy the product for its clean flavor as well as its historical connotations.

B. Ramble on Rye (Straight Rye Whiskey)

Ramble on Rye is Prairie Fire’s second product planned for the market. Unlike Smokestack Lightning, Ramble on Rye is aged for two years in charred oak barrels before being bottled and distributed. Ingredients include approximately 95% rye grains with 5% malted barley and other grains. The flavor produced is spicier and fruitier compared to bourbons which are both sweeter and mellow. Currently, there is a revival of rye whiskey in the United States with consumption tripling in the last five years and Ramble on Rye seeks to tap into this growing market. The retail price point of Ramble on Rye will be \$30 per liter, putting it at the lower end of premium whiskeys’ average price. Prairie Fire plans to introduce the Ramble on Rye product at the beginning of our third year of operation supplementing the revenue of white whiskey sales. Alcohol content of Ramble on Rye is 40% ABV and the spirit is best enjoyed neat with ice or in many cocktails that call for whiskey.

C. Black Dog Bourbon (Straight Bourbon Whiskey)

Prairie Fire’s final and signature product is Black Dog Bourbon. Bourbon represents the most widely-consumed whiskey in the world, and is only growing in popularity in the US and elsewhere. Black Dog Bourbon uses a slightly less sweet corn variety as Smokestack Lightning and is aged in charred oak barrels for four years before bottling. The ingredients for the mash are 75% corn, 10% rye, and 15% barley to promote conversion of starches to sugars. These combine

to give a flavor that is sweet but reserved with hints of vanilla and spices from the rye. Black Dog Bourbon's alcohol by volume is 40% and its retail price is \$38 per liter. This price is comparable to other premium brands, but the value and flavor provided will equal that of products priced in the \$50-\$60 range. Black Dog Bourbon is expected to be brought to the market at the onset of our fifth year and is estimated to provide the most revenue by product for Prairie Fire.

VI. Marketing

A. Marketing Overview

While there is relatively low competition in Kansas with other craft distillers, there exists heavy competition from established national distillers. Considering the sheer amount of products offered to the customer at a respectable liquor store, it is imperative that marketing efforts be emphasized to achieve customer awareness and loyalty. Prairie Fire expects \$150,000 a year in marketing costs to achieve target sales and customer awareness.

B. Direct Marketing

Prairie Fire produces a local spirit from local ingredients for local consumption. The importance of engaging the surrounding community in Kansas City could not be overstated as this will be the market for the majority of our product. Much of the marketing efforts will be dedicated to tasting events as it is difficult to generate loyal customers without having them try our products. By partnering with local bars and liquor establishments we hope to host an event

once each week in the first three years to actively engage our customers with our story, our product, and our process. Additional opportunities to promote our product face to face with our customer exist in the form of fairs, liquor industry events, and at distilling and home brewing clubs where our products are in high demand.

C. Advertising

Along with direct promotion, advertising will be focused on bars, liquor stores, distilling-specific events. Television and radio advertisements are too broad in their targeting to make them worth the investment. Instead, merchandise such as signs, glassware, and clothing should be provided to liquor stores and bars to make the most of the advertising budget. Additionally, all of these physical marketing materials should be brought to tasting events to promote awareness of the brand to the fullest extent.

D. Website/Social Media

A website and social media presence are major factors in driving awareness for many businesses. A website allows our company to make a good first impression with consumers before they buy our product and lets us reach those consumers that we would not have reached otherwise. Prairie Fire could easily put \$5,000 of the advertising budget towards the development of a basic website that tells the company's story and promotes our products. Essential functions of the website would be to direct customers to retailers that carry our products, attract consumers to our Facebook page and Twitter account, and offer customers the opportunity to purchase our merchandise. Secondary functions of the website would be to collect comments from site visitors and provide contact information.

Social media provides many of the same functions as the website, but would allow Prairie Fire to interact dynamically with our customers and followers. A Facebook page would display much of the same information as our website such as location and retailers, but would allow for updates on events that we are holding. Additionally, a Facebook page could be utilized to set up and track RSVPs for marketing events for Prairie Fire. A Twitter account would provide even more dynamic interaction with consumers. Through posting tweets and images of the distillery and events Prairie Fire can establish yet another line of communication with prospective customers. Twitter can serve to make our business more human to the outsider. A website and Facebook page are relatively static, but a Twitter account can respond to followers and establish a presence that is endearing and personal.

E. Merchandising

Merchandising is a method of supplementing revenues while also promoting brand awareness. As stated in the previous section, the Prairie Fire website could easily incorporate an online store into its makeup. In order to reduce excess costs, the store would start out small by selling products that are already being produced for use in direct marketing and advertising. These products include men's and women's T-shirts, various signs, and glassware (whiskey glass, shot glass). Even if sales of merchandise were extremely low (likely in first year), the cost of store upkeep is minimal and the merchandise would have been already purchased for use at marketing events.

F. Product Presentation

Presentation is paramount in the distillery industry. Liquor store and bar customers are assaulted by hundreds of different products when they walk in and the overall presentation of a product can do much to convince a consumer to try it. Each of Prairie Fire's whiskeys will be bottled in a different type of bottle. The first image in appendix E is an example of a bottle that will hold Prairie Fire's Smokestack Lightning. The second and third images are the approximate bottles for Ramble on Rye and Black Dog Bourbon respectively. The different bottles will make it easy for our customers to immediately differentiate our products. Additionally, the shapes chosen are aesthetically pleasing and elicit perceptions that our products are of high quality, traditional in their manufacture, and produced in small batches. The cap of all three bottles will have corks on the underside and wood on top, and will have the Prairie Fire logo branded onto it. The front of each bottle will feature embossed glass (See Image 1 of Appendix E) with the Prairie Fire logo within the outline of the state of Kansas. The individual product names will be shown on a banner at the bottom of each bottle just as in the first image of Appendix E. The story of our distillery and a brief description of the specific whiskey will be placed on a faded paper label on the back of the bottle.

VII. Licensing

A. Licensing Overview

The amount of licensing and paperwork that needs completion before opening a distillery is immense. Nevertheless, the licensing process should be given the utmost attention for mistakes could be costly and may delay operation of the business. The following is a comprehensive list of documents, forms, and licenses that must be obtained or completed before operation of the

distillery can occur. The estimated time to comply with all regulations and paperwork is one year. (Microdistillery License)

B. Federal Tax ID/Tax Clearance

Before applying for the many various licenses and approvals needed to start a microdistillery, one must register the business with the federal government and attain a federal tax ID. This registration can be done online or by paper and determines in what manner the business will be organized (sole proprietorship, partnership, corporation). Another prerequisite for a microdistillery license is a tax clearance. The state of Kansas essentially want to know that the person/persons applying for a microdistillery license has paid all outstanding taxes in the state. (Microdistillery License)

C. Kansas Microdistillery License/Packaging and Warehousing Facility

The Kansas microdistillery license and packaging and warehousing license are in fact two different licenses that must be obtained in the order mentioned. First, an applicant must be approved for a simple microdistillery license which allows for the production of up to 250,000 gallons of alcohol per year for a biennial fee of \$500. Information needed for this form is a federal tax ID for the business, ownership information, and a list of managers and their roles in the business. However, the state microdistillery license only allows for the production and sale of spirits at the specific site of the distillery. In order to legally sell to a liquor distributor as well as to package for distribution a citizen must obtain a packaging and warehousing facility permit. This permit can only be applied for after a microdistillery license has been approved and costs \$200 biennially when spirits production amounts to less than 250,000 gallons. (Microdistillery

License) As a whole, 2-3 months should be allowed for the completion of this process because the basic microdistillery license must be approved before applying for the packaging and warehousing facility permit.

D. Financial Disclosure Form

The financial disclosure form is a state document that must be completed before business operations can commence. Information required on the form are the sources of all investment for the business, basic questions about asset ownership, and the total investment being made at the onset of the business. (Microdistillery License) In order to adequately fill out the form all equipment, build-out, and other start-up costs must either be very accurately estimated or already paid for.

E. Escrow and Surety Bond for Microdistillery License

Mandatory escrow and surety bonds must be fulfilled in the state of Kansas to begin operation of a microdistillery. The reasoning behind these bonds is to contractually oblige the producer to pay all taxes and fees and comply with all state and federal regulations so they may receive the bond back with due interest. The forms are separate but both require a certificate of deposit to be presented to the respective escrow and surety agents. Both forms also require license numbers meaning that these agreements must be entered into after first obtaining the general microdistillery license. (Microdistillery License)

F. Request for Permanent Premise Approval

This document required by the state must be approved to properly zone the prospective site for the microdistillery. Prerequisites to this form are approval of the state microdistillery and warehousing licenses. Information required on the form are the licensee's personal information, the license number, and a detailed diagram of the buildings that will be involved in the production of spirits. Kansas restricts microdistilleries from operating less than 200 feet from a school, college, or church. (Microdistillery License) In order to fill out the form accurately the site of the microdistillery must be either already built or drawn up formally by an architect so key pieces of information can be demarcated in the form's diagram section.

G. TTB Alcohol Dealer Registration

The Alcohol and Tobacco Tax Trade Bureau (TTB) is the federal entity that handles the registration and taxing of microdistilleries. Essentially, the form is complementary to the federal tax ID in helping the government identify the tax status of the business. This form must be completed and processed before the start of business, and should not be seen as merely supplementary to the federal tax ID. Sections of the form require identifying information (EIN), premises location, and ownership information. (Microdistillery License) As a microdistillery interested in selling to a wholesaler, Prairie Fire should file the form as a wholesale dealer with intention of selling liquors (Code 31).

H. Kansas Distributor Franchise Agreement

The Kansas distributor franchise agreement is, in this case, a contract between a liquor producer and liquor distributor to actively distribute the brands selected by the producer in the state of Kansas. The form requires the names of microdistillery and distributor, license numbers

for both, and a list of brands to be distributed. While the form itself is uncomplicated and relatively brief, the most difficult part of completing the form will be convincing one of Kansas' liquor distributors to take on Prairie Fire's products. (Microdistillery License)

I. Kansas Brand Registration and Label Approval

In order to sell any alcoholic product in Kansas, a producer must first file each individual brand and label with the state. The form asks for the distribution channel, brand name, label description, and container information for every product a producer desires to sell. Considering the form needs the distribution channel for each product, the franchise agreement with a distributor must already be completed. Additionally, the specifics of container information are needed to complete the form, therefore the packaging, size, and type of container must be known. (Microdistillery License) This means that Prairie Fire will need to finalize agreements with packaging and bottle suppliers before completing the form. Finally, the alcohol percentage of each product is a mandatory section of the form. Overall, all specifics of each product to be produced must be finalized to accurately complete the form.

J. Federal Label Approval

The TTB also mandates the completion of a label approval form prior to distillery operation. The Application for and Certification/Exemption of Label/Bottle Approval asks for premises location, brand names and labels for each product, and alcohol content. (Microdistillery License) Just like the Kansas counterpart it will be impossible to fill out the form without knowing the exact details of the product, label, and bottling.

K. State/Federal Monthly Gallonage Tax Return and Sales Report

In order to legally operate a microdistillery a resident of Kansas and citizen of the United States must report the amount of proof gallons that were produced each month even if no alcohol is produced. The state and federal forms are separate but both ask for amount of proof gallons and ask the producer to compute the amount of tax owed to the state or federal government. Taxes are due at the time of bottling so there is no need to pay taxes on liquor that has been produced but not aged yet. A check with amount owed in taxes must be included with each month's report that is sent to the TTB or state revenue office. (Microdistillery License)

VIII. Action Plan

A. Years 1-2

In the first two years of operation Prairie Fire will assume many fixed costs associated with the startup including building and rent costs, equipment and installation costs, and fees related to trademarking and licensing. An estimated 3,000 barrels of liquor will be produced in the first two years with 40% being Smokestack Lightning, 30% Ramble on Rye, and 30% Black Dog Bourbon. Sales of Smokestack Lightning will create operating profit, while Ramble on Rye and Black Dog Bourbon are aged. Three days out of the week will involve production of spirits while the other three or four days will be spent directly marketing the product to consumers.

B. Years 3-5

Years 3-5 will see the introduction of our Ramble on Rye to the market and will serve grow sales and diversify our product offerings and customer base. Production will increase to 4,000 barrels with 30% being Smokestack Lightning, 30% Ramble on Rye, and 40% Black Dog Bourbon. Weekly activities will remain three days of production and three days of marketing.

C. Years 5-

At the onset of year five, Prairie Fire will introduce its Black Dog Bourbon to market and expects to see a marked increase in sales. Production will increase to 5,000 barrels with 25% being Smokestack Lightning, 25% Ramble on Rye, and 50% Black Dog Bourbon. This signals a refocusing of the company on its signature product, Black Dog Bourbon, which will provide a higher contribution margin and net income for the company. Weekly activities will see the escalation of production to four days a week and marketing to two days.

Appendices

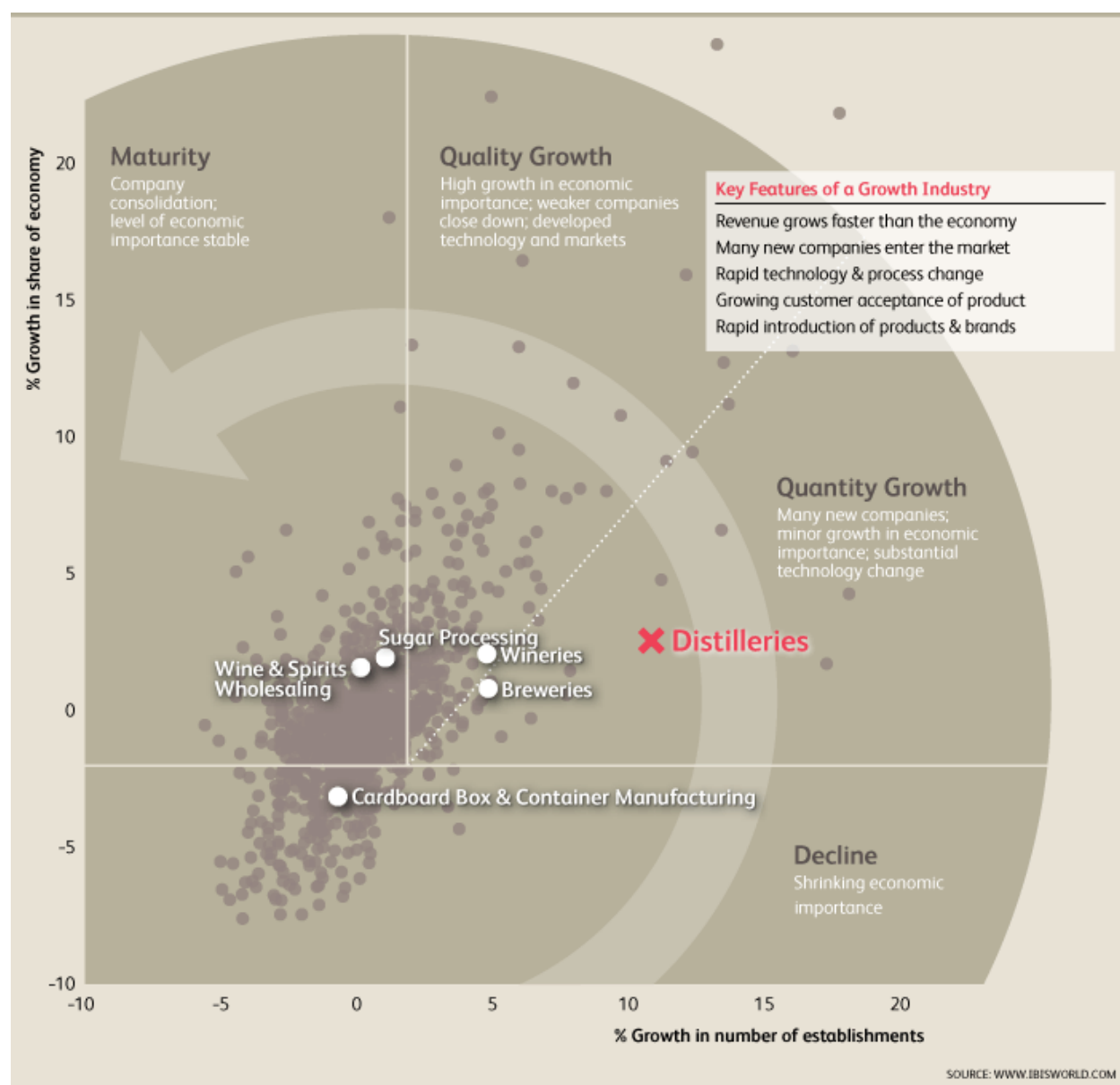
Appendix A:

Prairie Fire Fixed Costs	
Building Improvements	
Electrical, Plumbing, Fire Protection, General Construction	\$50,000
Rent	\$30,000
Brewing Equipment	
Boiler, Mash-Tun, Fermentation Vessels	\$70,000
Distilling Equipment	
300 Gallon Wash Still	\$35,000
100 Gallon Spirits Still	\$18,000
Pumps, Hoses, Filtration System	\$2,000
Hydrometers, Thermometers, Ebulliometers	\$600
Other Costs	
Office furniture, computers, phones	\$2,500
Legal fees, Trademarking, Licensing	\$5,000
Unplanned Costs Flex Fund	\$50,000
Total Fixed Costs	\$263,100

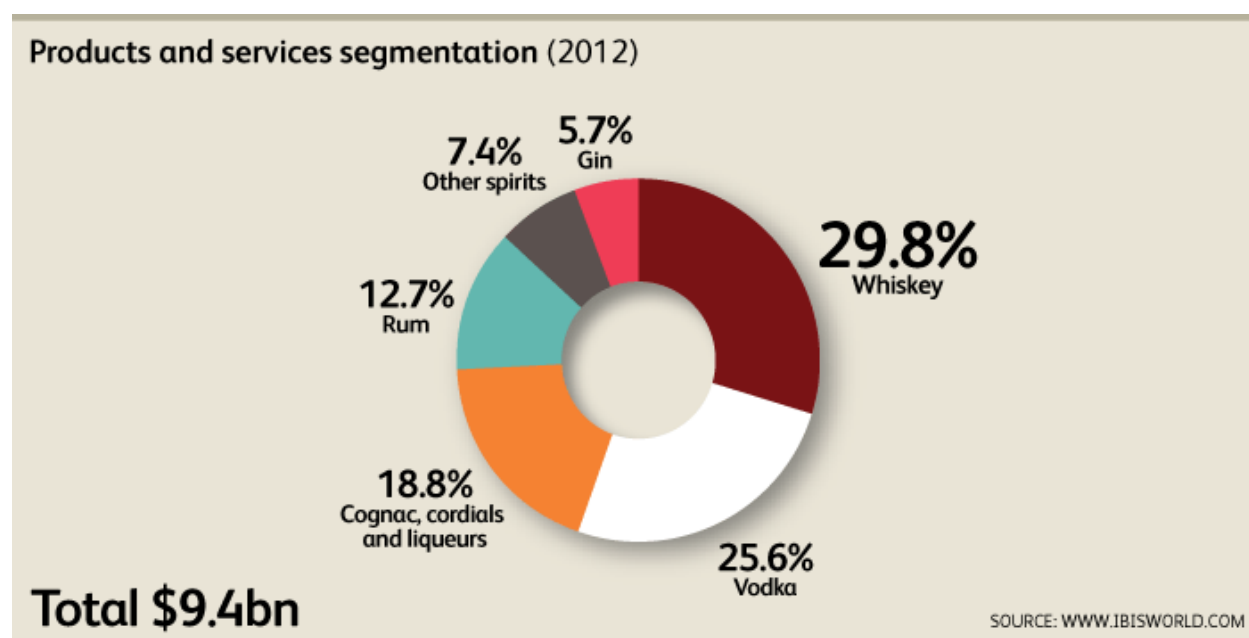
Appendix B

Prairie Fire Income/Expenses	Year 1	Year 2	Year 3	Year 4	Year 5
Total Production (Cases)	3,000	3,000	4,000	4,000	5,000
Smokestack Lightning	1200	1200	1200	1200	1250
Ramble on Rye	900	900	1200	1200	1250
Black Dog Bourbon	900	900	1600	1600	2500
Revenues (75% of Retail Price)					
Smokestack Lightning	\$237,600	\$237,600	\$237,600	\$237,600	\$247,500
Ramble on Rye	\$0	\$0	\$243,000	\$243,000	\$324,000
Black Dog Bourbon	\$0	\$0	\$0	\$0	\$307,800
Total Revenues	\$237,600	\$237,600	\$480,600	\$480,600	\$879,300
Fixed Costs					
Marketing	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000
Rent; Utilities	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Total Fixed Costs	\$155,000	\$155,000	\$155,000	\$155,000	\$155,000
Variable Costs					
Smokestack Lightning	\$57,600	\$57,600	\$57,600	\$57,600	\$60,000
Ramble on Rye	\$54,000	\$54,000	\$72,000	\$72,000	\$75,000
Black Dog Bourbon	\$59,400	\$59,400	\$105,600	\$105,600	\$165,000
Total Variable Costs	\$171,000	\$171,000	\$235,200	\$235,200	\$300,000
Total Costs	\$326,000	\$326,000	\$390,200	\$390,200	\$455,000
Operating Profit	\$66,600	\$66,600	\$245,400	\$245,400	\$579,300
State Taxes: \$2.50/proof gal.	\$19,020	\$19,020	\$25,360	\$25,360	\$31,700
Fed. Taxes: \$13.50/proof gal.	\$102,708	\$102,708	\$136,944	\$136,944	\$171,180
	-	-			
Net Income	\$210,128	\$210,128	-\$71,904	-\$71,904	\$221,420

Appendix C



Appendix D



Spirit sales

Type	Value (%)	Premium (%)	High-end premium (%)	Super premium (%)
Whiskey	17.5	25.1	36.9	20.5
Vodka	21.3	25.7	32.9	20.0
Cordials	19.9	67.4	12.6	0.0
Rum	12.8	72.0	12.9	2.3
Tequila	10.5	47.0	9.1	33.4
Gin	52.1	13.7	32.8	1.4

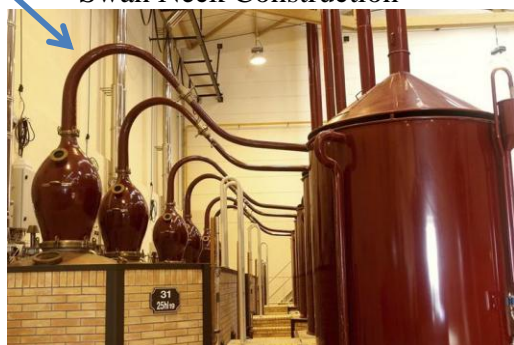
SOURCE: DISTILLED SPIRITS COUNCIL OF THE UNITED STATES

Appendix E



Appendix F

Swan Neck Construction



Ogee



Bubble Caps



Dephlegmator



Agitator



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