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Lone Madrone Winery and Bristols Cider

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At the end of the 18th century, Franciscan Friars planted vines for sacramental purposes on an isolated plain just inland from California's central coast where the headwaters of the Salinas River congregate.[1] Now the area is a city in San Luis Obispo County known as El Paso de Robles (Spanish for "the pass of the oaks"), colloquially referred to as Paso Robles or even just Paso. By the 1990s, Paso Robles had a thriving wine industry but was labeled by *Wine Spectator Magazine*, a leading wine rating publication, to be a backyard barbecue wine region.[2] Fast forward to 2013 and find *Wine Enthusiast Magazine*, the world's largest periodical devoted to wine and spirits, recognizing Paso Robles as the Wine Region of the Year for "not only excellence in wine quality but also innovation and excitement."[3]

Meanwhile, the San Luis Obispo County wine industry nominated their own for the most respected awards in the local wine community. On July 9th, 2013, Neil Collins, winemaker at both Lone Madrone Winery and Tablas Creek Vineyard, was named honoree for Winemaker of the Year. The award showcases Neil's contribution as a "mentor, innovator, and industry steward within this wine grape growing region," said Jennifer Porter, Executive Director of the Paso Robles Wine Country Alliance.

Warmly described by family and friends as "quirky," Neil does just as excellent a job blending wines as he does blending Old and New World winemaking techniques. At Tablas Creek, the wines are modeled after those of Château de Beaucastel in the Châteauneuf-du-Pape region of France using only Rhône varieties. Winemaking is a communal activity involving the owners—the Perrin and Haas families—and Neil adjusting blends until unanimous agreement is reached. Alternatively, at Lone Madrone Neil is unilaterally in charge of the final product and thus free to experiment, unbounded by the traditions and expectations of Old World wines.

Yet, Neil procures more than just grapes for Lone Madrone. Apples are sourced to make a variety of hard (alcoholic) ciders under the brand of Bristols Cider, a name referring to the place where Lone Madrone's owners, Neil and his sister Jackie Meisinger, hail from: Bristol, England.

Company Overview

"A Lone Madrone stands atop a hill between the mountain and the sea in West Paso Robles, presiding over the vineyard that started it all for the brother and sister duo, Neil Collins and Jackie Meisinger."
- Lone Madrone Website

In 1996, Neil decided to make Cabernet Sauvignon using grapes from Carver Vineyard in the York Mountain American Viticultural Area (AVA), adjacent to the western edge of the Paso Robles AVA. He called his sister, Jackie, to do the paperwork and thus was born Lone Madrone Winery with the goal of producing distinctive wines made exclusively from vineyards in the limestone hills of the west side of Paso Robles.

History

Jackie, co-owner and general manager at Lone Madrone, has a background in Hotel and Catering Management, working as a restaurant manager in Bristol, England. At 25, she moved to Los Angeles where she met a restaurant owner who was opening a business in Santa Barbara, the Sunshine Café, and offered Jackie to manage the restaurant. Neil, Lone Madrone's head winemaker, had trained in Bristol at the local culinary school and apprenticed under a talented chef. He visited Jackie in California during a six week holiday and ultimately became the chef at the Sunshine Café. Jackie married and she and her husband moved up to San Luis Obispo County. Again, Neil followed, moving up California's central coast to Los Osos where he worked at Rodney's Restaurant.

Through the restaurant industry, Neil developed a passion for wine and decided to work from one harvest to the next to better understand it. He looked up "wineries" in the Paso Robles phone book and Adelaida Cellars was the first listed. Fortunately, Neil already knew the equally quirky owner and winemaker, John Munch, through the restaurant business and was offered a job; however, the Adelaida facility was in the process of being built so Neil worked his first harvest instead at Wild Horse Winery in 1991 with Kenneth Volk, a winemaker with a reputation for crafting world-class Pinot Noir and Chardonnay. Neil describes his first harvest as, "an enlightening experience" in a "great, fun environment" as opposed to the "grueling" restaurant industry. Without much experience but with passion and desire, Neil worked as assistant winemaker with John Munch of Adelaida Cellars starting in 1992.

In 1994, Neil helped Robert Hass of Tablas Creek Vineyard produce its first vintage using the Adelaida Cellars winemaking facility. Tablas Creek Vineyard was formed in 1989 as a partnership between the Hass family in the U.S. and the Perrin family of France with the goal of producing Rhône-style blends. It was the first organic vineyard in Paso Robles and all its vines were originally clones imported from the Perrin family's infamous, centuries-old winery, Château de Beaucastel, in the equally notorious Châteaneuf-du-Pape region of France's Rhône Valley. The vines were held in quarantine at the University of California, Davis, for four years, propagated in greenhouses that were

finally torn down, the vines planted, and Tablas Creek Vineyard was the result. Neil became fascinated with what the Hass and Perrin families were doing.

Robert Hass introduced Neil to Carver Vineyard's Cabernet Sauvignon grapes that Neil used in Lone Madrone's first vintage of 1996. Yet, believing that viticulture is an equally important part of the winemaking process as vinification itself, Neil was unsatisfied with the amount of time he was spending in the vineyards while at Adelaida Cellars. In 1997, he contacted the Perrin family for vineyard and winemaking positions at Château de Beaucastel in France. For nine months, Neil learned to produce rich, spicy, full-bodied red wines and equally excellent white wines under one of the most innovative and successful wineries in one of the most important and variable wine regions in the world. With the model of Château de Beaucastel as guidance, the Perrin family asked Neil to be head winemaker and vineyard manager at Tablas Creek in 1998. In a time when organic viticulture was unheard of and wine consumption revolved solely around Cabernet Sauvignon, Chardonnay, Merlot, and Zinfandel, farming organically and selling Rhône blends was an uphill battle for Neil. At Tablas Creek, Neil had "done stupid and good things and innovated," in his own words, all the while trusting "people would come around eventually."

In 1998, Neil produced a 250 case vintage for Lone Madrone and asked Jackie to begin selling the wine. In 2000, Neil, always looking for challenge and experimentation, partnered with Donald Rose of Glenrose Vineyards to make Nebbiolo, a notoriously hard vine to plant and wine to make, under the Lone Madrone label. However, by 2003 the demands of Tablas Creek and little to no profits from Lone Madrone dictated that Jackie and Neil should end the business venture. Instead, Paso Robles businessman, entrepreneur, and vintner, Tom Vaughan, invested in Lone Madrone and became a partner in the business. With Tom's financial aid and business prowess, Lone Madrone's first tasting room was opened in 2006 on Highway 46 West in Paso Robles. That same year, Tom passed away, forcing Neil and Jackie to buy back the business.

In 2006, Jackie began working full time for Lone Madrone as General Manager and Neil was producing about 1,500 cases. Neil also began producing Bristols Cider made from local Apples sourced primarily from See Canyon Farm near Avila Bay in San Luis Obispo County. In 2013, Lone Madrone produced approximately 4,000 cases of over 20 different wines and moved its headquarters and tasting room to a property called Cocavin, owned by Gary and Wendy Schmidt, in the Adelaida Hills of West Paso Robles.

Event Involvement and Accolades

Lone Madrone's hosts an annual vineyard tour, during which guests sample food and taste wines at five vineyards that Lone Madrone sources from. The tour begins and ends at the Lone Madrone tasting room and involves vineyard owners speaking of their farming methods and challenges in between. The tour's finale is dinner with the growers in the garden outside the Lone Madrone tasting room.

Otherwise, Lone Madrone attends a multitude of wine festivals in California throughout the year and has won double golds, golds, or silver medals in the San Francisco International Wine Competition and the San Francisco Chronicle Wine Competition since 2009. Additionally, Robert M. Parker, Jr., wine critic for *The Wine Advocate*, has rated some of Lone Madrone's wines with 89 points or greater.

Philosophy

The Lone Madrone business model is centered upon quality rather than quantity. The core values are to produce the highest quality wines and ciders while being environmentally friendly, treating customers in the best manner, creating a great work environment, remaining a family business, and having fun. Business growth is slow, steady, and founded on the belief that producing wines of the highest caliber must first start with grapes of exceptional quality. To that end, Neil goes to great lengths to procure local grapes from small, family owned, sustainably farmed vineyards with soils that produce grapes able to "sing for themselves without being masked by our hands," as Neil says. He merges old world growing methods and winemaking preferences with New World varieties from the Rhône, Bordeaux, Italy, and Spain to produce unique wines that are characteristically balanced with structure and finesse.

Current Distribution and Sales

The Paso Robles 2007 Economic Impact Executive Summary states, "Ample research has shown that word of mouth based on personal experience is the ultimate driver of wine selection for today's wine consumers . . . It cannot be overemphasized how important these winery visit and tasting room experiences are to the growth of a brand and the development of brand loyalty in today's wine market."[4] Aligning with this conclusion and the national trend of small- to mid-sized wineries depending on direct-to-consumer sales, Lone Madrone does 80% of its business directly to the consumer through their tasting room, wine club, and online sales. Online sales account for a quarter of their direct-to-consumer sales. The remaining 20% of sales are done through distributors. The vast majority of Lone Madrone's distribution remains limited to California's central coast; however, they have representation elsewhere in California, Milwaukee, and Chicago. Approximately 75% of their business is through referrals, which allows Lone Madrone to use resources for winemaking rather than marketing and advertising. As of 2014, Lone Madrone offered 21 different white, red, blended, rosé, and dessert wines made from French, Italian, and Spanish varieties in addition to 7 hard apple ciders under the Bristols Cider brand.

Wine Industry

The economic recession of 2009 impacted global wine sales negatively followed by weather conditions in 2010 and 2011 that lead to production shortages.[5] However, the 2012 and 2013 vintages were record harvests worldwide with California vintners describing the years as "excellent," "outstanding," and "ideal."[6] Furthermore, the recent

economic recovery has consumers re-engaging in premium wines with premium wine being the fastest growing segment of the U.S. Wine Industry at 9% growth and $6.7 billion in retail sales in 2013.[7] Wine quality aside, wineries involved with internet retailing have reaped the most benefits due to internet-driven distribution becoming the fastest-growing channel for wine sales globally.

The U.S. beverage market is a $331 billion industry, of which alcoholic beverages account for nearly 50% of revenues, amounting to $189 billion in sales (See **Exhibit 1** for a graphical overview of the U.S. beverage industry).[8] Wine makes up 14% of the alcoholic beverage market and 71% of cases sold are domestically produced.[8] California is the top wine consuming and producing state in the U.S. and the fourth largest producer in the world.[9] Over 100 AVAs and 2,000 wineries produce 85% of U.S. wine domestically consumed and 90% of U.S. wine exported.[10] In 2013, wine sales in California grew 3% by volume and 5% by value.[11]

The U.S. (and therefore California) alcoholic beverage industry is complex and highly regulated with laws rooted in prohibition and its repeal. Upon prohibition's end, the Federal government was given the sole authority to license importers, manufacturers, wholesalers, and warehouses. States were given the authority to regulate the sale and distribution of alcohol within their respective jurisdictions. The Alcohol and Tobacco Tax and Trade Bureau (TTB) and the Food and Drug Administration (FDA) were given the authority to enforce and administer regulations. For alcohol not sold direct-to-consumer, the three-tier system was adopted. Manufacturers (Tier 1) such as wineries, breweries, and distilleries, must sell to wholesalers (Tier 2) such as licensed importers, distributors, and control boards. Federal excise taxes are collected when goods leave the premises of the manufacturer. Wholesalers act in cooperation with the federal and state authorities to ensure taxes are reliably collected. Wholesalers must sell to licensed retailers (Tier 3) such as bars, liquor stores, and various supermarkets, who can then sell to consumers.[12]

Under the three-tier system, smaller, family owned, artisanal wineries such as Lone Madrone are threatened by consolidation at the distributor level which can cut off their already limited access to retailers, but they stand to gain from the trend of customers favoring premium products and direct-to-consumer sales.

San Luis Obispo County & City of Paso Robles Wine Industry

San Luis Obispo County is located on California's central coast midway between Los Angeles and San Francisco. While most Californian AVAs—modeled after France's Appellation d'origine Contrôlée system—try to avoid political boundaries when shaping vineyard districts, San Luis Obispo county is more rigorous than most with Arroyo Grande Valley AVA, Edna Valley AVA, York Mountain AVA, and Paso Robles AVA. In California's younger years, Paso Robles earned a reputation as a place outlaws could hole up, no questions asked. Jancis Robinson writes, "From the 1880s forward, its role as a wine district was to produce the kind of sunbaked, high-alcohol, fiercely tannic Zinfandels that could pull an outlaw into a saloon on the bleak, wintery nights that are almost as common hereabouts as blistering summer days."[13]

Now, Spanish, French, and Italian varieties accompany the Zinfandel and Petit Sirah California has claimed as its heritage. The region's varietal abundance allows its vintners to experiment with blends that would be unfeasible in other regions bound by tradition and consumer expectations; Paso Robles is reinventing itself as a wine powerhouse and crafting its own identity for the 21st century. In the June 2005 issue of *Wine Advocate*, critic Robert M. Parker, Jr. asserts, "There is no question that a decade from now, the top viticultural areas of Santa Barbara, Santa Rita Hill, and the limestone hillsides of West Paso Robles will be as well-known as the glamorous vineyards of Napa Valley."[1]

Industry Overview

Wineries in San Luis Obispo County increased from a total count of 51 in 1997 to over 200 by 2007.[4] This translates to a 72% increase in the number of vineyards and a 190% increase in wine-grape bearing acres over the period. In 2000, wine-grapes surpassed vegetables to become San Luis Obispo County's highest valued crop, representing a third of total agriculture production value and creating over 8,000 jobs that represent 7.5% of county employment and 9.2% of private sector employment.

By 2014, the Paso Robles AVA itself had grown to over 280 wineries; the San Luis Obispo wine industry is highly concentrated in the Paso Robles AVA. It accounts for 90% of San Luis Obispo County's wineries and generates 82.4% of revenue and 82.5% of production.[4] The production capacities of the vineyards outpace that of the wineries with only 58% of wine-grapes sold within the county.[4] The Paso Robles AVA produces 3.2 million 9-liter cases of wine with a total retail value of $657 million.[4] Over two-thirds of production goes to lower priced wines; however, value added from producing grapes is derived from processing grapes into wine, including sales and marketing; grape prices reflect the wine they produce. Grapes produced for lower valued wine thus depress their growers. To improve the incomes of wine-grape growers and capture higher returns, the city is advancing the production of high priced win. To realize the full economic potential of the Paso Robles wine industry, the AVA is advancing the development of additional wine brands, expanding promotional efforts, and encouraging the production of high priced wine to improve the incomes of wine-grape growers and capture higher value-added returns.[4]

Geography and Climate

Established in 1983 and expanded twice in 1997 and 2009, the Paso Robles AVA is the largest geographic appellation in California and best described as varied. 614,000 acres, of which 26,000 are vineyards, range from 740 feet above sea level up to 2,000 feet in the western Adelaida Hills (See **Exhibit 2** for a map of the Paso Robles AVA). It is marked by distinct microclimates, diverse soils, and 40-50 degree diurnal temperature variation that allow over 30 different varieties to thrive, primarily those of Spain, Italy, Bordeaux, and the Rhône.[1] Over 45 soil series from weathered granite to marine sedimentary rocks to volcanic rocks make soil diversity the norm; soil can vary by vineyard block.[14] The high daytime and low nighttime temperature swing is the largest in California and is due

in part to the region's proximity to the ocean. Days can reach highs over 100ºF. Nights fall to the 40-50ºF-temperature range and temperatures may dip into the low 20s on the western side (See **Exhibit 3** for average monthly temperatures in Paso Robles). The Adelaida Hills are known to have snowfall and frost threatens the grapes through mid-May. Rain arrives in November and peaks sometime between January and March. The average rainfall is 15.5 inches; however, the east side may receive 8 inches in a year while the west may receive up to 45 inches (see **Exhibit 4** for average monthly rainfall in Paso Robles).[15] The late rains and temperature fluctuation lead to a later growing season than most other wine regions.

Due to geological and climatological variation, the Paso Robles AVA is scheduled to be split into 11 AVAs within the current Paso Robles AVA. Napa Valley, by contrast, is about a third the size of the Paso Robles AVA and has 16 AVAs within its bounds. The AVA system has the power to recognize the micro-level distinctiveness and macro-level similarities that give consumers the best understanding of what to expect from a region's terroir, a French word roughly translating to a viticultural area's soil and climate. In September 2013, the TTB had released a notice of proposed rulemaking and had thus validated the proposed AVA boundaries (See **Exhibit 5** for a map of the proposed AVA boundaries). Wineries will still be required to use the Paso Robles AVA name along with their newly designated AVA so those that have invested significant marketing time and money into promoting the region will not lose their identity.

The Adelaida

It could be said in wine circles that the Rhône Appellation Contrôlée is to France as the Paso Robles AVA is to California—the Rhône is the second largest wine-producing region in France and Paso Robles is projected to be the second largest in California due to currently being both the third largest in terms of production and the fastest growing wine region in the state. Like Paso Robles, the Rhône Valley is also varied with distinct subregions. One subregion, Châteaneuf-du-Pape, is to the Rhône as the Adelaida Hills are to Paso Robles. The Adelaida Hills are located in the northwestern corner of the current Paso Robles AVA and scheduled to be one of the 11 new AVAs: the Adelaida District. What makes this area unique is the predominance of desirable calcareous soils in the hills that cannot be found elsewhere in California. Limestone rock (calcium carbonate) is sought after because of having a reputation for producing quality wine.[13] This reputation is due, in part, to the world famous wines coming from Châteauneuf-du-Pape's calcareous soils and hot days.[13]

In 1989, Rhône varietals became part of Paso Robles' identity when the Perrin family and their American importer Robert Haas formed their international joint venture, Tablas Creek Vineyards, in the Adelaida region.[16] They planted 80 acres of traditional Châteauneuf-du-Pape varieties cloned exclusively from the Perrin's Château de Beaucastel property. Since then, Paso Robles has seen an explosion of Rhône variety plantings, primarily in the Adelaida region. Neil, through Tablas Creek and Lone Madrone, has been instrumental to the movement. Now, Paso has the largest acreage of Syrah, Viognier, and Roussanne in California.[1] In 1994, Rhône varieties covered fewer

than 100 acres.[1] By 2006, over 2,200 acres of Rhône varieties had been planted with multiple wineries entirely focused on Rhône blends and varietals. [1]

Viticulture and Winemaking

Source Vineyards and Viticultural Practices

Grapevines are robust and their largest need is for sufficient sunshine, allowing grapes to flourish with minimal water and nutrients. Traditionally, dry farming is the standard and is the only legal method of viticulture in most of the E.U., France included. In areas where water is scarcer, such as California, irrigation is used. Controlling the precise amount of water each vine receives allows New World regions to develop consistent wines. While Mediterranean regions such as California are threatened by drought during the summer ripening stages, Neil learned to appreciate the Old World grape-growing and winemaking methods where each vintage varies, in part due to rainfall. People that follow Neil and buy Lone Madrone's wines want to see how his expressions evolve across vintages.

Business with vineyards is done on a "handshake" basis and won't be done with "anyone I wouldn't have to my house for dinner," says Neil. In keeping with Old World practices, Neil goes to great lengths to procure grapes that are, in his words, "the purest expression of the unparalleled terroir of West Paso Robles." The vineyards Neil sources from have the following common characteristics:

Organic viticulture Most of Lone Madrone's grapes are sourced from USDA Certified Organic vineyards. This grape-growing method shuns industrially synthesized compounds such as fertilizers, fungicides, pesticides, and genetically modified organisms. Grey rot (botrytis bunch rot), a persistent threat to grapevines, is fought using canopy management, opening the vines to sunlight by hand. The manual work required increases labor costs that are passed on to the sales price of the grape. The primary concern for organic farmers is soil health: physical structure, water capacity, chemical state, and prevalence of microbial life. Soil health is maintained through the application of organic fertilizer in the form of compost. Organic vines are less vigorous, have lower yield fluctuation, and less risk of fungal disease due to the lower levels of nitrogen- and potassium-rich vegetation. Weeds are generally allowed and suppressed by sowing cover crops between vine rows in the spring and fall, then disking under to become soil fertilizer. Additionally, cover crops promote vine root depth penetration and uptake of trace elements.

Dry farming Most of Lone Madrone's wines are founded upon dry-grown grapes. Viticulture that relies entirely on natural rainfall is called dry-farmed, dry-grown, or dryland viticulture and is used as a sales pitch in regions, such as California, where irrigation is common. Dry farming induces water stress, the effectiveness of which is an area of continuing research in viticulture. The focus has been on the relationship between yield size and potential benefits. When a grapevine goes into water stress, it reduces the growth of new shoots that would compete with grape clusters for nutrients and

resources.[13] The lack of water keeps grape berries smaller and increases the skin to juice ratio, ultimately adding complexity to a wine.[13] When successful, quality fruit is produced, it can be sold at a premium. However, excessive water stress causes loss of photosynthesis and eventually the leaves themselves, producing improperly ripened grapes.[13]

Head training In order to further reduce grape yield and concentrate flavor, Neil seeks vineyards that aren't in trellised rows. Instead, the vines are left freestanding and the trunk forms a knob, or head, consisting of old wood. The foliage is typically unsupported by wires and trimmed by hand to expose the vines to proper sunlight.

Biodynamic viticulture 1% of the world's vineyards are biodynamically farmed and one of Lone Madrone's wines comes entirely from biodynamically grown grapes.[13] The Demeter Association of America certifies and regulates production standards beyond government recognized organic standards. As such, Demeter Certified Biodynamic viticulture is an enhanced form of organic viticulture that produces impressive results but without scientific explanation. Based on theories from Austrian philosopher Rudolf Steiner, biodynamics view the vineyard as a living organism that can be maintained in a self-sustaining way. The Earth, too, is seen as a living organism with diurnal and seasonal rhythms dependent on and receptive to cosmic, planetary, solar, and lunar cycles. Conventional chemicals and fertilizers are forbidden and either manure or ground quartz (silica) placed within a cow's horn are buried according to the time of year and sun's position. Vines are propagated, planted, and trimmed according to the moon's ascent and descent.[13] Organic compost is used to fertilize the soil but must be first activated by a series of starters or preparations. All materials are to be generated on site and while biodynamics are controversial, a French governmental soil study showed microbial life was significantly increased on biodynamic vine roots and roots were thickest, longest, and most able to penetrate soil and assimilate trace elements when grown biodynamically. In addition, copper levels in topsoils had been reduced.[13]

Winemaking Process

Neil is involved with white, red, rosé, and sweet winemaking. The details of the winemaking process vary considerably by type. For example, pressing, in which the juice is separated from the skins, occurs before fermentation for whites and after for reds. Neil's winemaking methods can be described as traditional and minimalist in order to achieve wines that are expressions of the estate they come from.

In the Paso Robles AVA, harvest begins in late August or early September and lasts through November. Neil sources from over a dozen vineyards in any given vintage and the grapes are crushed using the facilities at Tablas Creek Vineyard. Crushing the grapes liberates the sugars in their juice for fermentation that begins when yeast comes into contact with sugar. Neil uses the winemaking facilities at Grey Wolf Cellars from fermentation forward.

Conventional vineyards in California pitch yeast, meaning they inoculate cloned yeast

strains with predictable results. Neil does not pitch yeast but instead uses the native yeasts that are living on the grapes and stems in order to reflect the terroir and its variation from year to year. Ecological studies have shown that intact grape berries harbor yeast genera in significant populations that participate in the winemaking process.[13] Most wild yeasts are active during the early stages of fermentation and die when wine reaches the 5% alcohol level. The advantage of a population of native yeasts are their many different abilities and aptitudes that can produce wines with a wider range of flavors and characteristics than those using a single yeast strain.[13] However, native yeasts are not without their risks. Their behavior is not as predictable as cultured yeasts and can form off-odors. In the worst case scenario, native yeasts can lead to stuck fermentation—a winemaker's nightmare—when the fermentation process ceases before the wine's sugar has been consumed. Such fermentations are notoriously difficult to restart and the wine is at risk of spoilage from oxidation or bacterial disease.[13]

For wines high in acid such as some reds, a second "fermentation" occurs with malolactic bacteria, also called lactic acid bacteria, that inhabits the wooden vats and barrels wine is aged in. Not truly a fermentation but a conversion process, the bacteria decompose harsh malic acid into milder lactic acid.[13] Neil barrel ages his wines in oak and rarely stainless steel to clarify and stabilize them, then he proprietarily blends the wines.

The final stage of winemaking is finishing. Conventionally, this involves fining and filtering, processes considered interventionist by wine critics and generally not practiced in the production of fine wines. Neil does not manipulate his wines in any way by adding sugar, water, de-alkalizing, fining, or filtering. Fining is the process of clarifying and stabilizing wine by adding a fining agent to coagulate or absorb and precipitate the colloids suspended in it.[13] Filtering is the physical alternative to natural settling, whereby solid particles are strained out using various sorts of filter.[13] Months of barrel aging create the same effect without robbing a wine of its complexity, capacity to age, and color. For Lone Madrone wines, the finishing stage only entails analysis: testing a wine's stability, adding a minimum amount of sulfites if necessary to prevent spoilage, and ensuring it meets legal requirements. This minimalist technique results in wine that varies dramatically based on what happens in a year.

Drought in California

The Oxford Companion to wine states that "growing grapes for wine is a climatically sensitive endeavor, with narrow geographical zones providing the best production and quality characteristics. Therefore, the inherent uniqueness that wine region climates provide place the industry at greater risk from climate change than more broadly grown agricultural crops."[13]

In the 20th century, California has experienced higher yields and grape quality due to asymmetrical warming at night and in the spring, a reduction of frost occurrence, and longer growing seasons.[13] Nevertheless, this warming has lead to a decrease in rainfall in most viticultural locations and an associated increase in water stress and reduction in future water resources. Projected changes present influences on and challenges to the

wine industry, including changes in the timing of grape phenology, resulting in a disruption of balanced grape composition and flavor.[13]

NASA found that the 11 warmest years on record have occurred since 1998.[17] 1998 was recorded as the warmest year on record while 2005 and 2010 tied for second.[17] In California, the mean temperature has risen 2-6% since 1949 (See **Exhibit 6** for California's mean temperature departure from 1949 until 2005).[18] The U.S. Drought Monitor rated all of California as having at least severe drought in 2014 and the central coast as being in exceptional drought—the highest drought intensity bracket and the first time exceptional drought has been recorded in California (See **Exhibit 7** for detailed California drought conditions).[19] California Governor Jerry Brown declared a drought State of Emergency in January and directed all state officials to prepare for water shortages; precipitation is down at least 50% of normal in California and down to 10% of normal in San Luis Obispo County (see **Exhibit 8** for 2014 precipitation as a percentage of normal precipitation in California).[18]

Paso Robles Water Shortage

California uses the most groundwater nationwide, but has yet to enact statewide groundwater management legislation.[20] Due to drought conditions, a growing residential population, and expanding viticulture, the extraction of groundwater in Paso Robles has far exceeded its replenishment, resulting in annually declining water levels.[20] Increased annual recharge, increased use of treated wastewater, and water conservation measures have been implemented to mitigate the problem.[20] Agriculture accounts for 67% of water basin use and of that, 76% is due to vineyards.[21] In 2013, the Paso Robles Groundwater Basin Urgency Ordinance (Ordinance No. 3246) was enacted to prohibit new pumping from depleted groundwater basins and require new water use from the basin to be entirely replaced before further use. Yet replenishment does not necessarily mean water added back to the basin; credits can be purchased to offset water use. Local vintners sought exemptions from the ordinance less than a month after its passing and controversy has since ensued between homeowners, environmentalists, and the agricultural industry.[22]

While the ordinance creates a dramatic effect on the development and growth of the Paso Robles wine industry, Lone Madrone is largely removed from the issue because the majority of their source vineyards are dry farmed. Nonetheless, the drought is capable of inducing severe water stress detrimental to wine quality, especially during ripening. Moreover, in 2014 yields have been significantly affected for the first time. The price Lone Madrone paid for grapes in 2006 was $1,500 per ton compared to $3,500 per ton in 2013. Neil believes in keeping price points as low as possible in order to maximize availability of Lone Madrone wines to customers, but rising grape prices are forcing Lone Madrone to raise the prices of their wines to new levels. Further, the cost of grapes is expected to rise higher with the drought's severity because yields are lowering; for the first time, dry farmers are unsure of the amount of grapes they will be able to sell. Although wine grape yields have increased over the past years, the future does not look as promising. Less rainfall and more groundwater depletion leaves less moisture in the soil (see **Exhibit 9** for average monthly precipitation in Paso Robles since 2003). If the

trends continue, vines will need to be spaced further apart to reduce competition for limited water resources and 100% dry farming may not be feasible.

The Cider Industry

With surmounting pressures caused by California's drought and Lone Madrone's unwavering commitment to quality and sustainability; Neil's passion to pursue further development of cider varieties in conjunction with an exploding cider industry has led to the expansion of Bristols Cider. In June 2014, the doors to Bristols Cider House, the first cider production site and tasting room in the U.S., was opened in Atascadero, California. Bristols line of hard ciders had grown in popularity and sales since 2010 and the brand received commission to break ground on a new production facility in November 2013. With the industry growing at least 100% in revenue every 52 week period seen the past year, the future looks bright for Bristols Cider.[23] Major players in the beer category have also taken notice of the expanding niche cider market, acquiring small cider businesses and rolling out major advertising campaigns. However, tax issues plague the industry, jumping from $0.23 to $3.40 when the carbonation and alcohol content exceed current legal limits as they do in the high quality, English-style ciders Bristols makes (See **Exhibit 10** for a depiction of tax rates for hard cider).

A Brief History

Introducing itself to the U.S. during colonial times, cider once held value for those braving the New World, and provided a platform for individuals like Johnny Appleseed, a missionary who was credited with early American orchard expansion.[24] Yet since then, the sparkling drink has remained mostly in the shadow of other alcoholic beverages. Hard cider was briefly the national beverage of the U.S. until the influence of German immigrants catapulted beer into popularity. Prohibition caused hard cider to all but fall off the consumer map. After prohibition ended, alcoholic beverages that were easier to produce caused cider to fall behind.[25] Apple Orchards require an average of four to five years to produce fruit.[26] Although its popularity remained constant on a cumulative global scale, hard cider only started gaining momentum in the U.S. in the twenty-first century.

Industry Outlook

The global cider industry is forecast to be at a value of $2.6 billion by 2015. In 2010, North America accounted for just 3% of the cider world market, yet by 2011 had grown 22.1%. For the seven month period ending July 2012, the U.S. cider market showed an increase of 77% compared to the same period of time in 2011.[27] Currently, the U.S. cider industry is valued at $600 million.[28] By 2017, production in the U.S. is predicted to reach 310 million litres.[29] Even more astounding, Information Resources Inc. reported 100% dollar sales growth and 101% case sales growth for the 52 week period ending December 29, 2013.[30] The East Coast harbors the largest players in cider production, with 65% of the U.S. market production occurring in Vermont (See **Exhibit 11** for statistical overview of U.S. cider market).[27] On the west coast, California is the largest player, accounting for

16% of the U.S. cider industry. In addition to being the fastest growing sector of alcoholic beverages in terms of production and sales within the U.S. since 2010, hard cider has entertained a boost in global consumer perception. Emerging as a new distinction from the established wine, beer, and spirits sectors, the cider industry's future is slated for great gains. Bristols Cider House is positioned to seize this opportunity, unfolding as a leading producer of cider on the west coast, with its new facility's output starting at 5,000 gallons daily and capacity scheduled for multiple times that of initial production.

Bristols Cider

Bristols' Beginnings

Upon moving to California, Neil was disappointed to find none of the traditional beverage of his home. In 1994, the year Neil made his first vintage of wine, he also made his first batch of hard cider to honor the palette celebrated in brews from his native roots. Neil continued to produce small batches of cider thereafter for himself and offered it to those who shared meals with him. In 2006, when Lone Madrone's tasting room opened, Neil began offering his line of ciders to the public. The success of Bristols cider was evident, and remained every season, selling out long before demand was met. It became evident quickly that Bristols Cider required a larger production facility to meet demand and capitalize on growth the industry had seen.

Production

A high level of experimentation is evident in Bristols Cider's product offerings: varieties are dry hopped, aged in bourbon barrels, made with a variety of apples, and sometimes inoculated with unique yeasts. Before the move to the Bristols Cider House, production was taking place by renting space at Grey Wolf Cellars and five ciders were produced. Most have 7.5% alcohol by volume (ABV) and, like Lone Madrone Wines, are fermented using only the native yeasts on the fruit and therefore face the same benefits and threats. The Black Beard Cider is the exception reaching 13% ABV, aged for 14 months in an old bourbon barrel, and inoculated with a blend of 80% Champagne yeast and 20% Brettanamyces.

With Bristols Cider House, Neil and his associates have the capacity to experiment further and expand distribution. In fact, two new hard ciders have already been made, one of which, the Scrumpy, goes back to Neil's grassroots, being unfiltered and without carbonation. The ciders are sold in flights, pints, and on tap. Jackie desires to offer the varieties in growlers, glass or ceramic jugs used to transport alcohol. They are traditionally rarely bottled for retail sale in the U.S., though the evolvement of the craft beer industry has led to an emerging market for collectible growlers.[31] Growlers surprisingly attract an extended consumer profile: breweries have seen "ladies with strollers . . . buying them for their husbands. Three weeks later, they've got two. One's his and one's hers."[31] Aside from being convenient to the young demographic surrounding Atascadero, growlers also offer convenience to those who have graduated

from going out every night. Others value the packaging for reasons of economy or ecology.[31]

Friendly Relations: Cider and Craft Beer

Although cider sales are a mere 1% of sales in the beer category, brewers have turned to cider product in an effort to diversify their company portfolios, and once the cider industry reported a 144% volume growth in the midst of an economic recession, several large beer companies entered the cider market.[29] Craft beer and cider share similar traits from a marketing perspective: both appeal to consumers looking for different, authentic products that indulge in entertaining environments. Cider and craft beers also have experienced significant increases in sales and revenue: craft beer recently making a splash on the global market and cider resurfacing in the U.S. while continuing to show progress in several countries globally.[32]

Competitive Landscape

"A big piece of craft is authenticity, credibility and storytelling," stated Ethan Ganot of Crispin, MillerCoors' hard cider label. This marketing strategy, which focuses on providing the consumer with a unique story and experience with every product purchase, has resulted in much success for the company, which saw a 170% increase in case volume and $4.5 million in revenue in 2012. On the other strong side of the marketing strategy lies Heineken, whose cider label Strongbow devotes its efforts to targeting high-energy consumers who opt for city lounge locations. Heineken was rewarded handsomely, with $5.4 million in dollar sales and 143,160 cases in volume.[32] Anheuser-Busch released Stella Artois Cidre in 2013, which deviates away from its sweeter competitors by featuring a European-style product drier and more savory in flavor profile. This is in response to the dominantly sweet cider domestic market and increase in male consumers.[30] Each of these major companies have seen success from entering the niche market and a surge response in sales from their marketing strategies.

Bristols' Competitive Advantage

Perhaps the greatest advantage Bristols Cider holds is the ability to promote a product that hits all three common strategies taken by its largest competitors. Bristols Ciders draw in Lone Madrone's already established customer base by using locally sourced apples that are fermented on the native yeasts of the fruit just like Lone Madrone's wines. To further differentiate their product, some ciders are held throughout the fermentation process in bourbon casks, retired white wine barrels, and stainless steel. The higher alcohol content and carbonation aligns with the emerging demand for a less sickly sweet cider variety. Bristols stands alone on U.S. soil in regards to a domestic product developed purely to reflect its well-established and well-received flavor depiction. Authentic product in hand, Jackie set out to create an equally unique label that echoed her and Neil's roots. Hailing from Bristol, Blackbeard and fellow fabled pirates provided compelling stories that mirrored the robust, distinctive flavors of their cider line. Another

passion acquired from Bristol is Neil's love for soccer. As such, the tasting room is in a lounge layout with a large TV devoted to depicting soccer games.
The cider house is located in the up-and-coming downtown scene of Atascadero, California, a city between Paso Robles and San Luis Obispo. Atascadero boasts a small town atmosphere that invested $1.6 million from redevelopment agencies and state grants into renovations of its downtown area.[33] New bars specializing in high quality drinks have emerged, attracting Bristols' target market: 20 to 30 year old consumers. Backed by Neil's reputed drink-making skills, Bristols Cider's recognition as a value-added product is undeniable and verified with a reported 600% increase of production that continues to fall short demand.

The Tax Issue

A major cloud hanging above the industry's expansion is the current tax legislation. "The federal law discriminates against hard cider… the tax is so large, it makes making hard cider not quite prohibitive, but far more difficult than it should be," stated U.S. senator Chuck Schumer, who has proposed a bill to fix the hardship. Under the Internal Revenue Code 26 USC Section 5041, ciders cannot exceed 7% ABV, or they are subject to higher taxes. To elevate the issue, an increase in carbonation categorizes cider as a Champagne, which raises the rate from $0.23 to $3.40, the highest alcoholic beverage tax bracket.[34] The natural sugars in apples makes it difficult to control the alcohol content of the final product. The proposed bill would put the U.S. cider industry on the same plane as European cider imports and cease in creating further difficulties for producers working with such notoriously sweet fruits like apples.[28] Schumer's proposal echoes the actions of House of Representative members Earl Blumenauer of Oregon and Chris Collins of New York, who introduced The Cider Act: HR2921. This act seeks to allow ciders natural production without increased tax liability by amending the section of the Internal Revenue Code (26 USC Section 5041).[35]

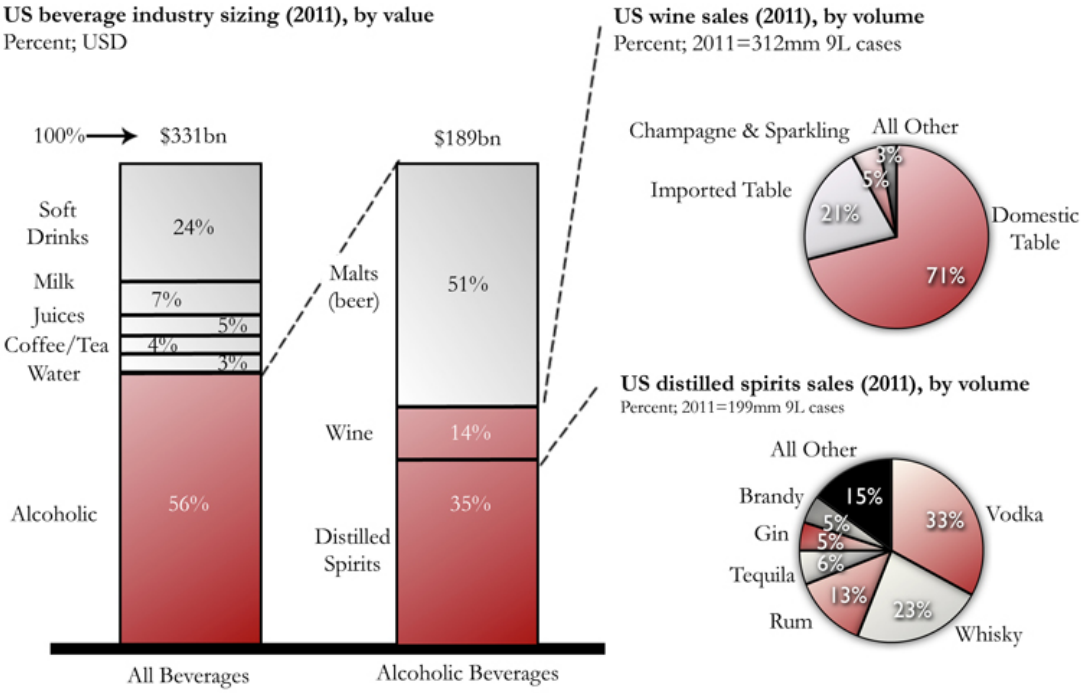
Neil and Jackie have lent support in the passage of The Cider Act, which aligns standard alcohol content of hard cider with the natural sugar content of apples, and moves American standards closer to those seen in Europe.[36] For Jackie, cost minimization methods like offering growlers to customers can be effective, but do little to solve the hindrance current legislation presents.

Future Outlook

Lone Madrone's heart and soul lies in years of perfecting the art of preserving close relationships with growers and customers who share a deep appreciation for products created by hand from start to finish. To honor Neil's meticulous winemaking efforts and allow the winery to continue cultivating its celebrated lifestyle, Lone Madrone has set production limits to 10,000 cases. Owning a property to host the winery's tasting room and support a small vineyard is a family dream set to be realized through the success of the Bristols Cider brand. Bristols Cider House saw great success its opening weekend and the site is able to double in size. Plans of converting the current cider house into a production-only facility have already been prepared and a second building located across

the parking lot has been purchased for the relocation of the cider tasting room and additional production capacity. Furthermore, the average turnover of a bottle of Bristols Cider is three months, in contrast to a turnover of three years for a bottle of Lone Madrone wine. For Lone Madrone Winery and Bristols Cider House, the past provides a strong platform on which the family is due to achieve continued gains. However, with large-scale competitors, tax legislative issues, and varying consumer opinions, was the grand opening of Bristols production and tasting room an answer to dreams, or a deeper financial commitment than anticipated?

Exhibit 1 Overview of U.S. beverage industry



Source: Beverage Information Group, Park Street analyses

Exhibit 2 Paso Robles AVA

Exhibit 3 Average monthly temperatures in Paso Robles

Exhibit 4 Average monthly rainfall in Paso Robles

Exhibit 5 Proposed AVA Boundaries of Paso Robles

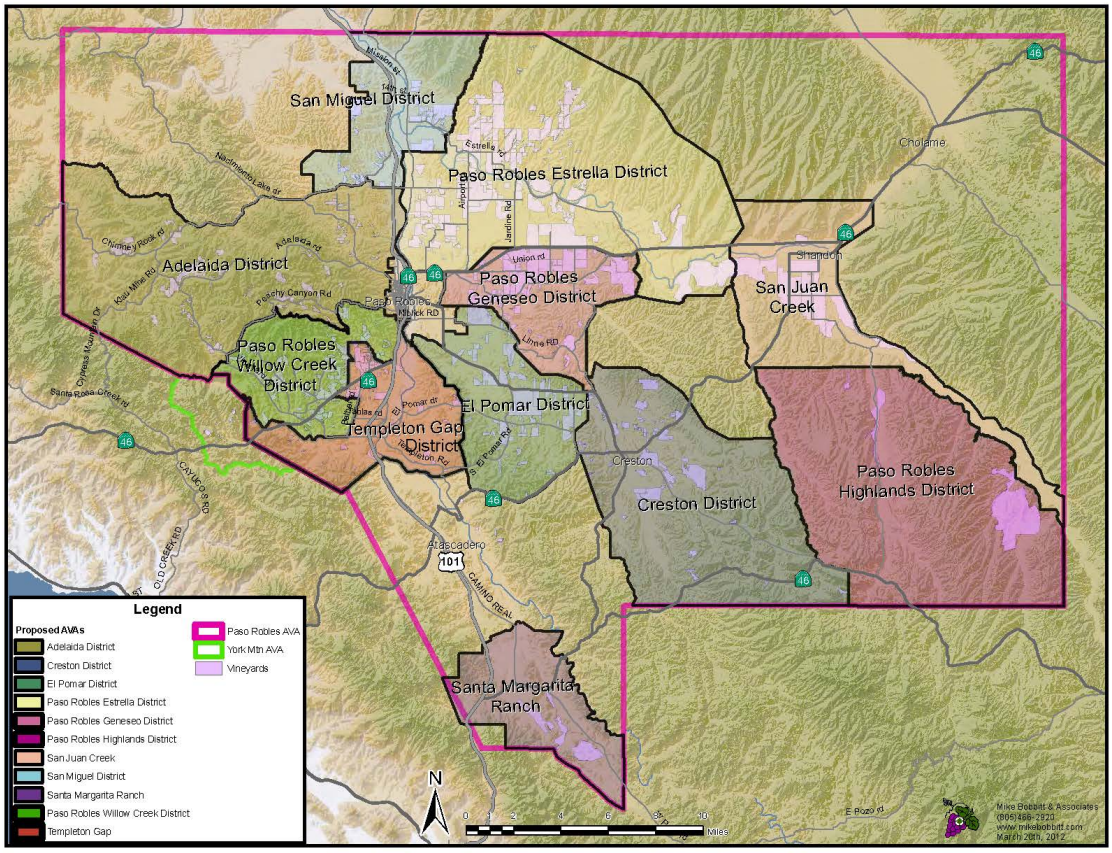


Exhibit 6 California's mean temperature departure from 1949 until 2005

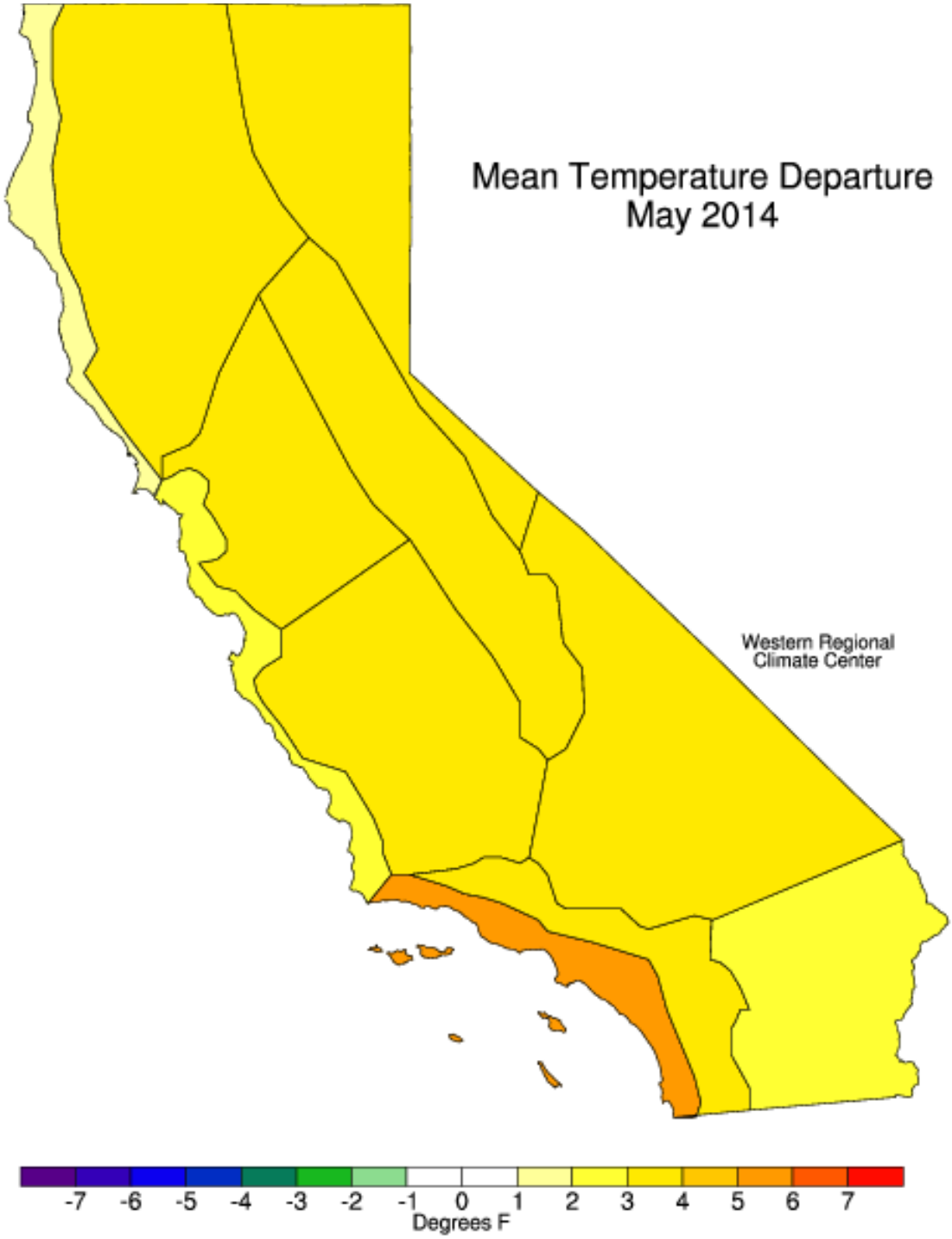
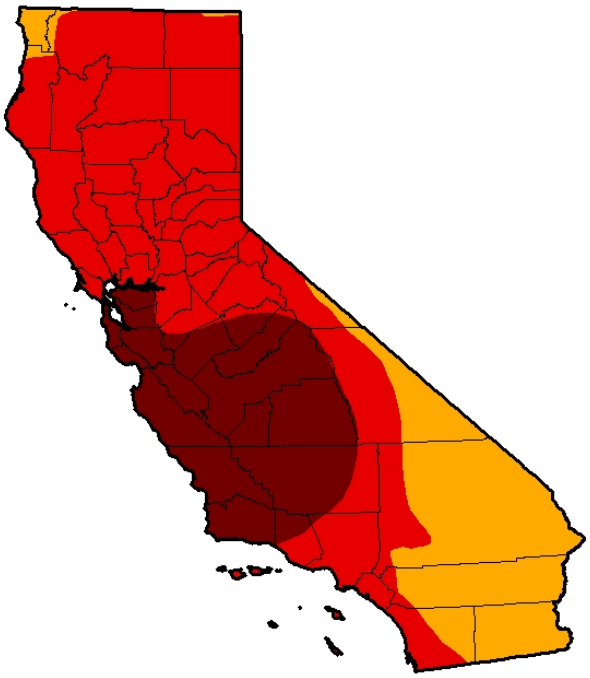


Exhibit 7 California drought conditions, 2014

U.S. Drought Monitor

California



June 3, 2014

(Released Thursday, Jun. 5, 2014)

Valid 8 a.m. EDT

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.00	100.00	100.00	100.00	76.68	24.77
Last Week 5/27/2014	0.00	100.00	100.00	100.00	76.68	24.77
3 Months Ago 3/4/2014	0.00	100.00	94.56	90.82	65.89	22.37
Start of Calendar Year 12/31/2013	2.61	97.39	94.25	87.53	27.59	0.00
Start of Water Year 10/1/2013	2.63	97.37	95.95	84.12	11.36	0.00
One Year Ago 6/4/2013	0.00	100.00	98.16	53.64	0.00	0.00

Intensity:

- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

Author:
Richard Tinker
CPC/NOAA/NWS/NCEP

http://droughtmonitor.unl.edu/

Exhibit 8 2014 precipitation as a percentage of normal precipitation in California

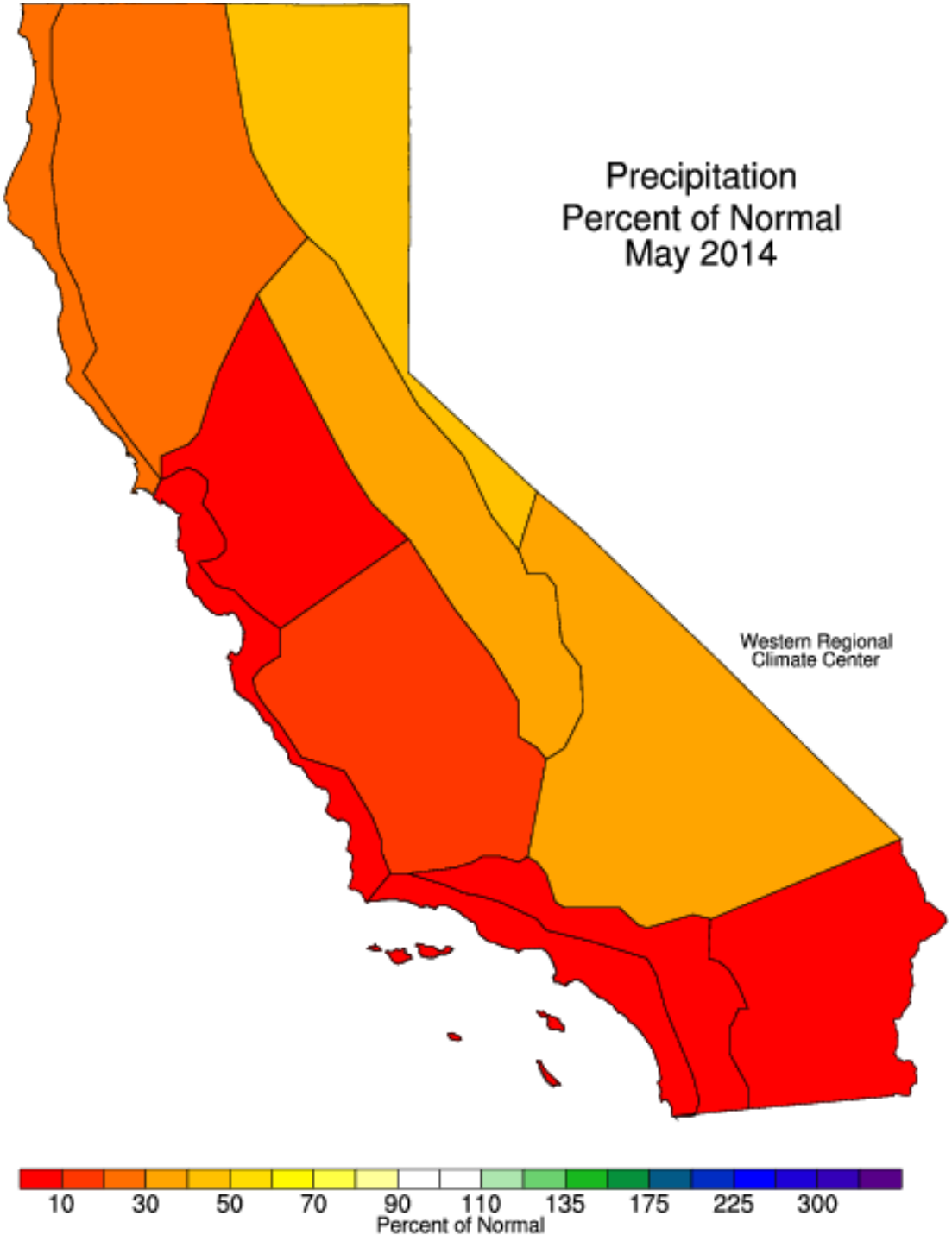
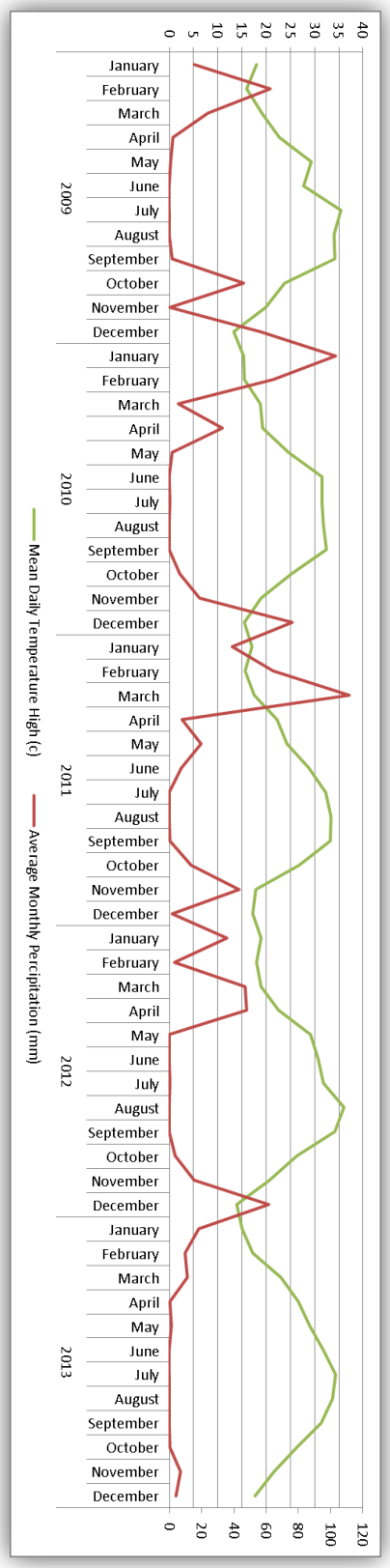


Exhibit 9 Average monthly precipitation in Paso Robles since 2003



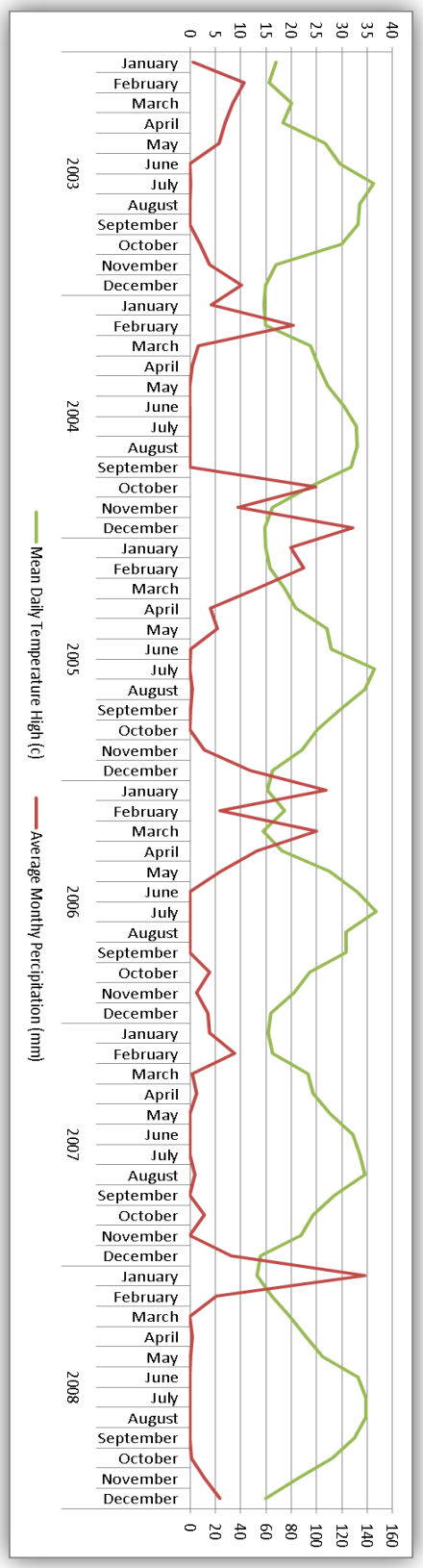


Exhibit 10 Depiction of tax rates for hard cider

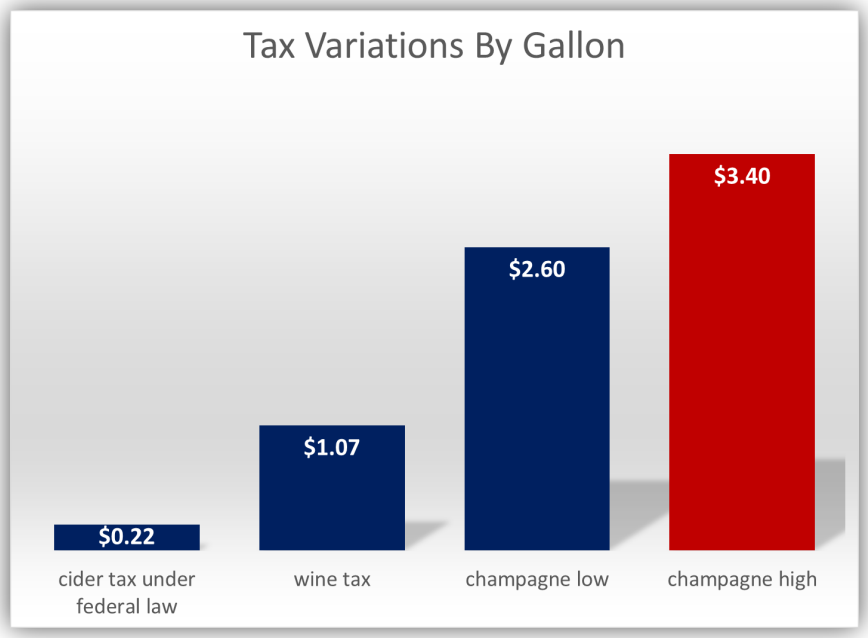


Exhibit 11 Overview of Cider Industry

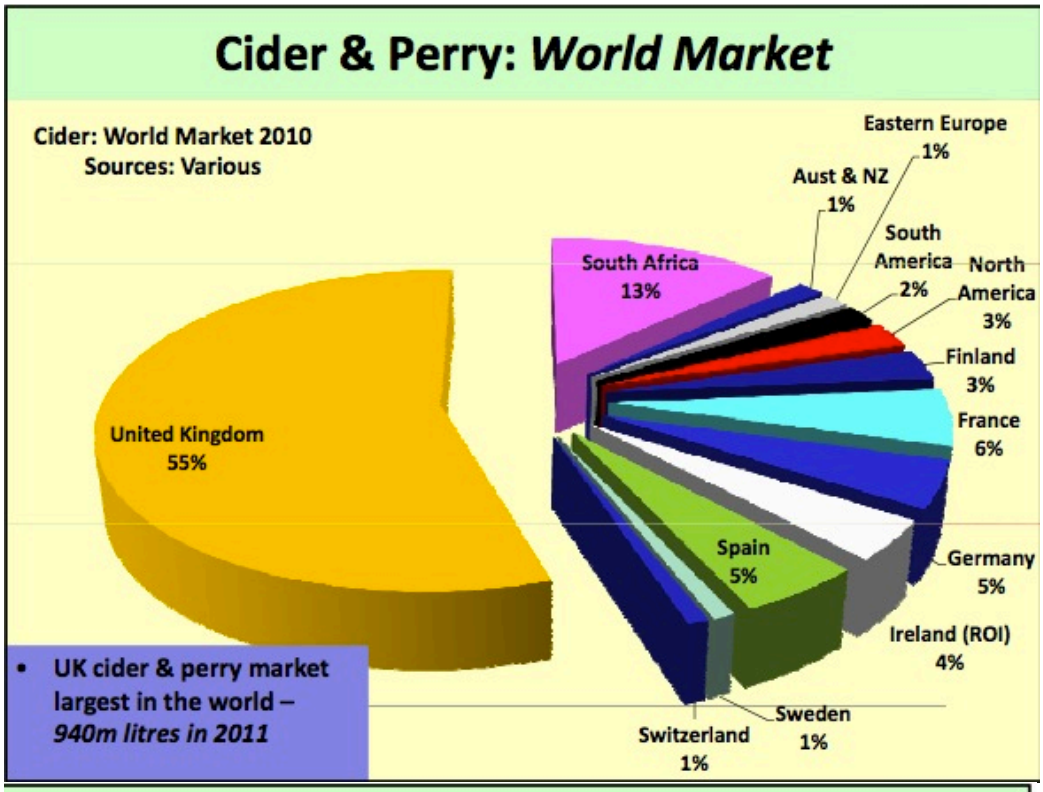
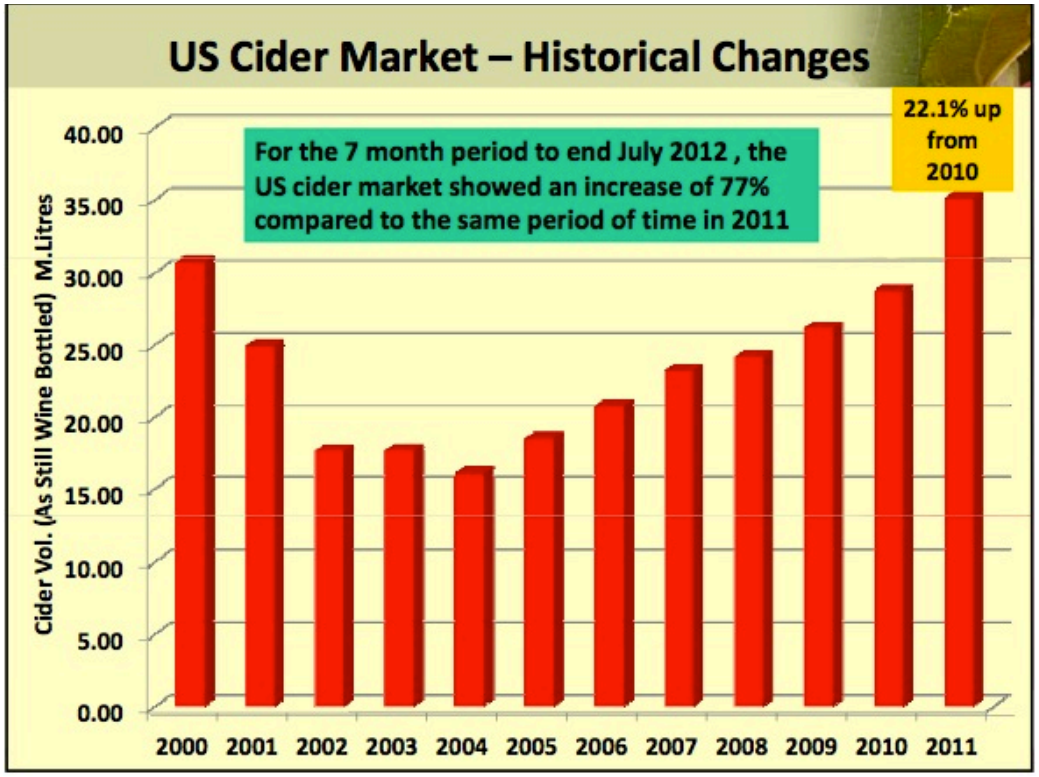
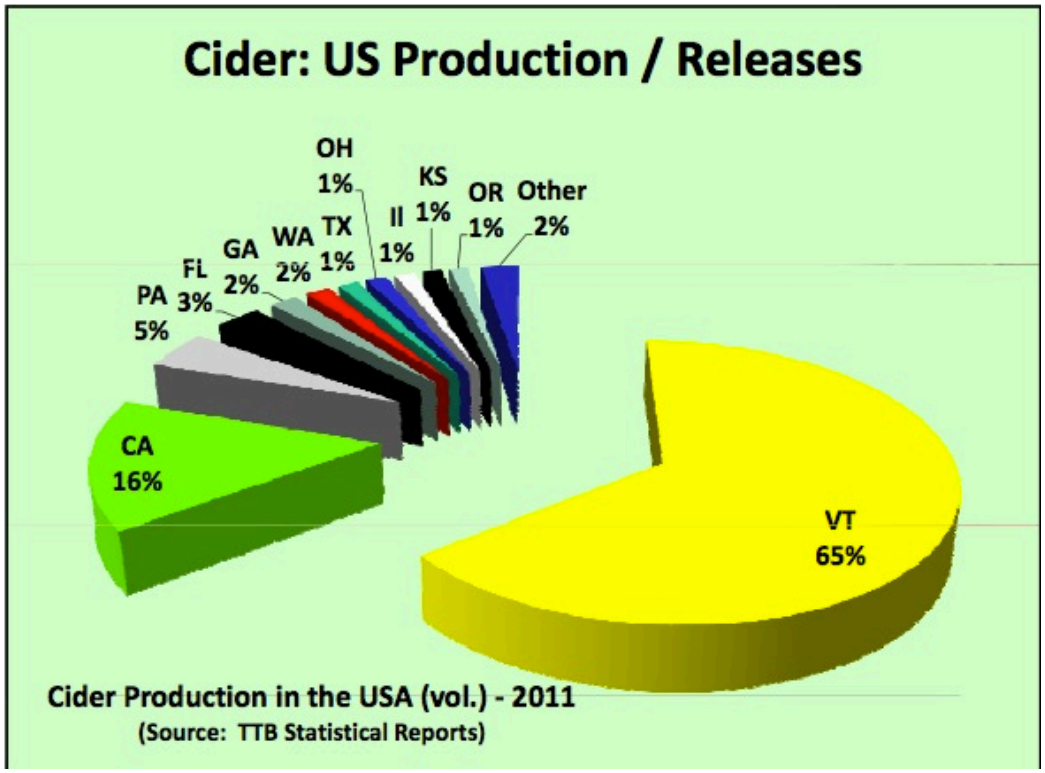


Exhibit 11 Overview of Cider Industry Continued





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