

Case Study: Abandoned Farmland Revitalization Through Grape and Wine Production in Chikuma Gawa Valley



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Introduction

The production of wine, the alcoholic beverage made from fermented grapes, dates back to 4500 B.C. in Europe but is now found all over the globe. Wine production and consumption has been a growing force in Japan. Most wine production of Japan comes from Yamanashi Prefecture. However, Nagano Prefecture, a prefecture that neighbors Yamanashi, has the potential to also grow and develop a wine production and grape cultivation industry of equal caliber. Through a case study of several Chikuma Gawa Valley Grape Vineyards and Wineries, revitalization of abandoned farmland and rural areas in Chikuma Gawa Valley and the greater Nagano Prefecture looks promising.

The issue of land abandonment and aging population go hand in hand emphasizing the need for land reutilization and revitalization of rural areas. As elderly farmers retire, lands are most often left uncultivated, ultimately leading to abandonment.^{4,10-11} A problem found throughout Japan, the aging population is magnified in the agriculture industry where over 60% of farmers are over the age of 65.¹⁴ Alongside the aging population, abandoned land harbors many issues that can be mitigated through revitalization of the rural areas and land in Chikuma Gawa Valley.

Through a discussion of the various players and their interests, we attempt to illustrate the hurdles in developing grape cultivation and wine production of Chikuma Gawa Valley. Hurdles include issues related to land utilization, aging population in the farming society, and marketing of Nagano Prefecture. Chikuma Gawa Valley can be used as a model for Nagano prefecture as a whole. Bringing in wine production and grape cultivation to Nagano is a method of modernizing farmland areas that are not being used and developing an industry that will bring younger people back to the area. Studying Nagano Prefecture and its potential as a major center for wine and grape production relied on interviews with major players of the wine industry, specifically Chikuma Gawa Valley's wine industry.

Interviews served as a guide to understanding the multidimensional issues of grape and wine production. We conducted interviews of different wineries in the Chikuma Gawa Valley, as well as an interview with a research committee from a city government. Interviewees included former director of Château Mercian, Mr. Noboru Ueno,⁷ Katsunuma Jozo's Director, Hirotaka Aruga,² Akeno Misawa Winery's Vineyard Manager Mr. Eiiti Akamatsu,¹ Senior Vineyard Manager of Château Mercian, Mr. Hiroshi Saito,⁵ Mariko Vineyard's employee, Mr. Kenta Yoshida,^{8,9} owner of Villa d'Est Garden farm and Winery, Mr. Toyoo Tamamura,⁶ Rue de Vin's employee, Mr. Jun Endo,³ and from Ueda City's Jimba

Plateau Research Committee Chairman of the committee, Mr. Migawa Horiuchi,⁴ Vice Chairman of the committee and former member of the local township parliament elected from the Shiogawa village, Mr. Mitsuru Yoshida,¹⁰ and Vice Chairman of the committee and representative of the 100 or so landowners, Mr. Kazuo Yoshike.¹¹ Development of this area through wineries and vineyards, however, face many difficulties that can be tackled by various players in this industry, who can hopefully expand this phenomenon within Chikuma Gawa Valley to the greater Nagano Prefecture.

Background of Nagano Prefecture

Nagano Prefecture, nestled in the middle of Japan has a very diverse landscape, some of it being suitable for grape cultivation. The landscape of Nagano is mountainous; the Japanese Alps appear to surround this area. 80% of the prefecture is covered in forest. Areas that are not forested include plains and rivers. The major rivers include Tenryu, Kiso and Chikuma (Shinano River). The Chikuma River forms a valley at the foot of the Asama and Mikuni mountain ranges. The high mountains north to Chikuma Gawa Valley prevent rain clouds from moving inland, resulting in low levels of precipitation in the valley. With its low levels of precipitation and dynamic landscape, the mountainous valley formed by Chikuma Gawa in Nagano is very suitable for the cultivation of grapes.²⁵

It was not until the Meiji Era (1868-1912) that grapes were grown in Nagano Prefecture's Chikuma Gawa Valley. Before that time, lowlands, with irrigated water, housed rice cultivation. While the hilly sloped lands, housed mulberry trees for raising silk worms. After the decline of silk demand from Japan the 1970, this area sought to cultivate Ginseng.^{4,8,10-11,25} Now, Nagano is known for their fruit and vegetable agriculture. In 2010, 71% of Nagano's agriculture production by value is from vegetable, fruit, mushroom and flower cultivation. One of these fruits is the grape. Nagano Prefecture, mostly within the Matsumoto and Shiojiri central region, produces half of Japan's 198,000 tons of grapes (Karan 2005, STAT 2012). Despite the large agricultural strength of Nagano Prefecture, this region has been experiencing stagnation due to an aging population, emigration, and land abandonment.

Abandoned Land Revitalization

Because land abandonment is a result of landowners' limited economic choices, a major focus will be on creating value within the land to the benefit of the landowners. In 2012, Ministry of Agriculture, Forestry and Fisheries (MAFF) stated that out of the total agricultural land of Nagano, 14.4% was abandoned. Abandoned lands pose problems in loss of landscape heterogeneity, soil erosion, biodiversity loss, reduction of water stocks, and loss of cultural and aesthetic values (Rey Benayas et al). Once abandoned, the cost of reverting abandoned lands back to cultivable lands is costly. The costs would lie on the one who cultivates the land. Rue de Vin's Endo and Villa d'Est's Tamamura voiced the major obstacles of restoring abandoned land meant clearing out debris, soil improvement and water drainage improvement. The mountainous terrain also makes it difficult to use large machinery. These problems of abandoned farm land, however, are not what weigh on the mind of landowners.

Landowners decide to abandon lands for personal economic reasons. With 60% of farmers aged over 65, retirement of these farmers with few legacy results in abandoned fields. The following generation of landowners must also balance whether land cultivation will bring them a positive return, especially in the mountainous region. For some landowners, entering land rental contracts will make it more difficult to convert land in the future (Kimura 86). The hesitation to enter land contracts is solely based on

expectations of the market or development in the area, which is more often found in urban areas. In a rural area, like Nagano Prefecture, land abandonment is likely “driven by economic considerations related to farming” (Kimura 85). Fear that renters will not make good use of the farmland, which will reflect poorly on the landowner is also a factor.⁵ In fact, after Château Mercian’s success with the initial plot of Mariko Vineyards, surrounding landowners, who were initially unwilling to lend their land, welcomed Mercian to bring grape cultivation to their land.⁵ Rental of lands to the grape cultivation and wine production entrepreneurs fits the interests of abandoned land owners, giving value to lands that lay abandoned.

Japan’s Agricultural Land Act is one of the major legal barriers to renting agriculture land. The purpose of the Agricultural Land Act law is to improve the position of farmers and to stabilize crop yield. In order to achieve these purposes, agricultural land is given to farmers and land division is regulated. This Land Act also dictates that the agriculture land must be used for crop growth and other uses are prohibited. Companies, such as a big winery, cannot own and directly-manage large amounts of farmlands by this law. This law, as a way to support small farmers, makes it difficult for companies to get farmland. Minimum land lease period is 10 years. If landowners don’t agree or accept the use of land or policy of company/winery, they can break off the contract on 10th year. Consequently, companies/wineries make utmost efforts to utilize land to its maximum and contribute to local people and landowners.

(例) 農地を貸し借りする場合(農地法3条許可)

農地を借りて経営規模拡大したいけど手続きはどうすればいいかな?



農地を管理してくれる人に貸したいけどどうすればいいの?

お互いに農地法許可申請を作成

申請書

提出

農業委員会にある指定の申請用紙により貸借期間・賃借料などを記入します。

農業委員会にて審査・決定

許可

大切な農地大事に使います。



まかせたよ。

Mariko Vineyard is located in Jimba area, Ueda City, Nagano Prefecture. Before this vineyard was established, a great deal of land was abandoned in Jimba area. Landowners tried to make various crops but did not succeed. Many landowners wanted people who would manage their farmland. At the same time, Château Mercian was searching for some land to grow wine grapes. Ueda City's Jimba Plateau Research Committee (陣場土地利用研究会) acted as intermediate landowners for Château Mercian to contact to lease the farmlands. However, as the Agricultural Land Act stipulated, public companies cannot rent land from farmers directly. In order to solve this problem, Château Mercian made "La Vina", a small private stock company. Since La Vina was small company, it was able to rent the land from these landowners.

A second problem arose due to a desire to develop large continuous cultivations. Japanese owners tend to own very small plots of land, so renting 20 ha, the size of Mariko Vineyards, required coordination with almost 100 landowners. Local community administration was vital for this process;

they had a lot of information on the land and was able to sign contracts concerning agricultural lands. Jimba Plateau Research Committee was responsible for contacting both the landowners and the renter. The local community administration have helped smooth over major social and legal issues of land rental for many vineyards in Chikuma Gawa Valley. In order to pave the way for more abandoned land development, companies seeking to expand into the winery market will need to work with local community administration.

Tamamura's dream was to make wine using grapes he had grown by himself, yet, he had no land of his own. He focused on utilizing the abandoned land in Chikuma Gawa Valley. Tamamura was able to lease an abandoned farmland in Tomishi City with no difficulties. Issues he had were with soil improvement, such as nutrition input and soil drainage, and gaining the trust of the local landowners. After his initial grape harvest, his activity was accepted by local people and became famous. It then became easier for him to rent more farmland.

Rue de Vin was also limited by lack of large continuous land. As of today, they have rented 4.7ha from 16 landners. In 2006, only 2.7ha was able to be rented initially. Among the 4.7ha, only 60% is used for wine grape cultivation and the rest are for paths for machinery to travel by, and slopes. They could not use all land they cleaned. However, Rue de Vin is considering to open a mountain so that they can made wide area for wine and it would be more efficient because there will be no terrace fields there. Buying more land in the area, in order to produce more low-price wine to help with the funds because at the moment, growing wine-grapes and producing wine by themselves requires a higher price.

To get available lands, local government have to raise awareness to local farmers & land owners about the negative consequences of abandoned lands(soil degradation, uselessness for owning) by comparing with better land use model & showing the benefits from successful wine grapes productions & wineries. For Mr. Tamamura, some of the lands that he rented were paddy soils, which meant more work had to be put into converting it. Such as how to revert the soil type from a soil that formerly retained water to a soil that can drain water. he soil is mostly heavy clay, which is prone to holding water, which is bad for wine grapes that do well in drier type of conditions. On the other hand, the soil moisture is still moderate to grow grapes. The soils were also deprived of nutrition, so soil must be fertilized.

The tradeoff between the wine grape cultivation and table grape cultivation stems from the European influences on wine. Wine grapes vigneron seek different properties than the regular table grape cultivators. Chikuma Gawa Valley area is famous for the table grape variety called "Kyoho" so farmers has limited experience with wine grapes. Table grapes are much more labor intensive than wine grapes. The yield and water content of wine grapes is much lower than table grapes in attempts to increase the levels of sugar for wine fermentation. This philosophy is in line with the European ideals of wine production, which is quite foreign to Japanese grape growers. For wineries that purchase grapes from domestic farmers, estimated to be only 18% , the difference in table and wine grape cultivation values causes discrepancies in quality (National Tax Agency, Production of Japan Wine Table). Methods of combating this will be the result of education of farmers and contracts between winery and grape farmers that focus on techniques for quality.

Wineries and vineyards are constantly improving techniques for improving wine grape cultivation. The quality and taste of wine is highly dependent on grape quality. Mercian winey is seeking to improve cultivation of fragile and easily damaged fruit of Pinot Noir. Low density of branches and thin skin of the grapes exposes the Pinot Noir to possible damages. Strong September to October rain damages some of the fruit. A solution, although labor intensive, currently used is to take off the petals of the

flowers in June, thus reducing the number of grapes. Wineries are constantly seeking to improve the quality of wine grapes as they feed directly into the quality of wine. Farmers are less likely to experiment and so techniques that are developed by vineyards that can experiment, will help farmers develop more appropriate wine grapes.

Chikuma Gawa Wine Valley Structure

Nagano Tourism Bureau has previously divided Nagano Prefecture into four major wine regions, calling them as a whole: “信州ワインバレー”. Shinshu Wine Valley includes, not only the literal meaning of the wine-growing valleys in Shinshu (an old term used to refer to the province located at present day Nagano Prefecture), but also embodies the origin of wine in it, giving the wine a signature touch. Chikuma Gawa Wine Valley is one of such valley and home to various villages, towns and cities: Tomishi City, Ueda City, Nagano City, Komoro City, Aoki Village, Iizuna Town, Takayama Village, etc.³⁰

In addition to its beneficial climate to viticulture, two of the areas in Nagano Prefecture have been regarded as ワイン特区 (designated wine area).³⁰ Designated wine areas have lower wine production requirements when applying for alcohol production license (also known as winemaking license). Minimum wine production requirement, by law, is 6 kilolitres, but making wine in these areas with local raw ingredients can lower the requirement to 2 kilolitres,^{5-6,21} allowing more opportunities to smaller-scale companies. Two of those areas in Nagano Prefecture are situated in the Chikuma Gawa Wine Valley: Ueda City (received approval in Nov. 2008) and Takayama Village (received approval in June 2011).³⁰ This type of approval shines new light onto the possibilities of Chikuma Gawa Wine Valley.

Rural Development

Although prosperous and full of possibilities, Nagano Prefecture consists of a major problem that exists in the entire agricultural society of Japan: age. Aging issue in the agricultural societies is a huge and growing problem in a country whose demographic transition has reached stage 5: low birth rates and high death rates. According to the Statistics Bureau, Japan, by August 1, 2014, the percentage of those over 65 years old is 25.8%. In Nagano Prefecture, total population is 2,132,000 and 27.4% (585,000 people) are over 65 years old.

Staffing has become an issue at vineyards and wineries. At Mariko Vineyard, there are currently five regular employees⁸, whereas Rue de Vin only had 3 employees³. Although wine grape cultivation is not as laborious as table grapes cultivation, Endo mentioned, an experienced employee can only manage up to 1 ha of farmland. Exceeding this number of farmland will cause difficulty in the capability to manage the vineyards in time.³ Worth mentioning is the fact that the average age of those involved in viniculture (the study and practice of wine and winemaking) is above 60 years old, with a minimum age of 30 to 40 years old, in Japan.⁵ This can quickly become an issue for vineyards and wineries alike as years pass by.

People from wineries and vineyards whom we have interviewed have hinted concerns over this issue. A main problem was the concern over the lack of successor in both viticulture and viniculture. With a late starting age at the industry (30-40 years old), skills and knowledge are only honed at a riper age.

Quickly, this generation will have passed away before their skills and knowledge can be passed on to the next generation.⁵

On top of this, is another problem that exists in every rural area: emigration. Similar to other rural areas, when we interviewed the Jimba committee and brought up this issue, their answer was clear: a majority of the younger generations have all emigrated to the cities in pursuit of better job opportunities. Those left in the area are the extremes in a society, the young and the old. This comes as no surprise as so is the trend in rural areas, thus, comes the importance for rural development.

Interest in viticulture is gradually increasing in Japan, yet in order to improve the aging problem in both viticulture and viniculture may prove to be a harder task than imagined. In other agricultural crops (such as vegetables or staple crops), the government have drawn up plans and funds to support young generations who wish to engage in agricultural activities. These have proven to be very alluring to young adults who either have no idea what they want to do or wants to go back to their hometowns.

In viticulture and viniculture, however, costs are high and this industry is still considered a minority among Japanese agriculture.

(refer to Figure 1)
Governmental support may not be able to support this industry as much as they do on the other types of crops. Costs in viniculture depend mainly on the kind/quality of wine you are looking to produce. At minimum, 6 kilolitres of wine must be produced annually to meet the requirements to apply for license.^{5-6,21} Even in designated wine areas, 2 kilolitres are required (around a wooden barrel of wine).⁵

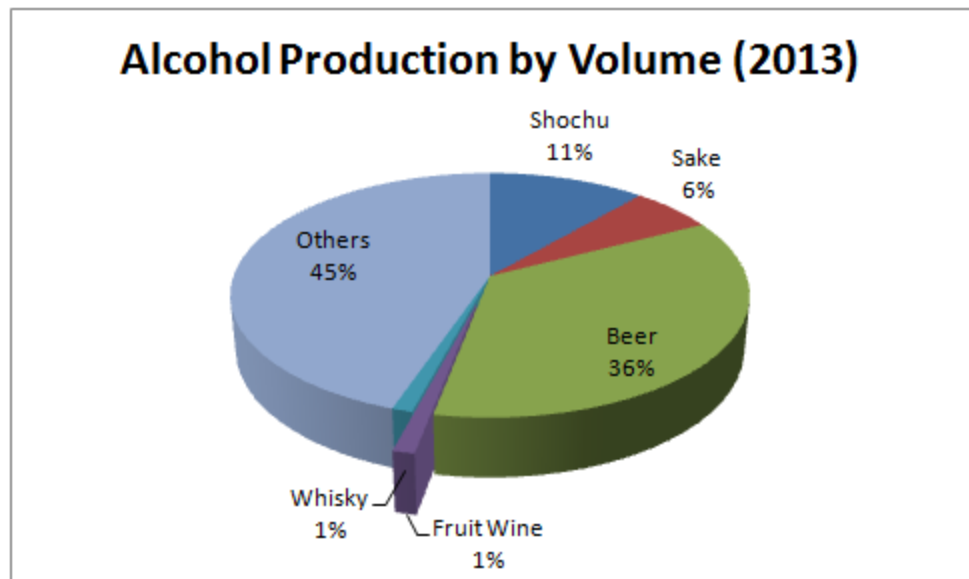


Figure 1. Alcohol production by volume in 2013 (%)
Data Retrieved From: National Tax Agency

a winemaking license.⁵



Depending on the type of barrels used, costs may also vary. At Château Mercian in Yamanashi Prefecture, imported French oak barrels are used to ensure the taste and aroma of red wine. Price of these barrels were around 40,000 yen 30 years ago and expected to have risen nowadays due to demand and currency.⁷ Saito have mentioned that barrels made from stainless steel can ensure better quality wine but with it, costs will increase. At Villa d'Est, there was a fully automated bottling machine that ensured hygienic and sterilized wine. (see Figure 2) This was imported at a staggering price but is worth every penny as we were told then. These are only a tip of the iceberg that must be spent in opening a winery, even at a small scale. Other costs include the bills that come along

with setting the temperature of the cellars to appropriate humidity and temperature (22 degrees Celsius and 70% humidity at Château Mercian Winery), labor, machineries, etc.⁷

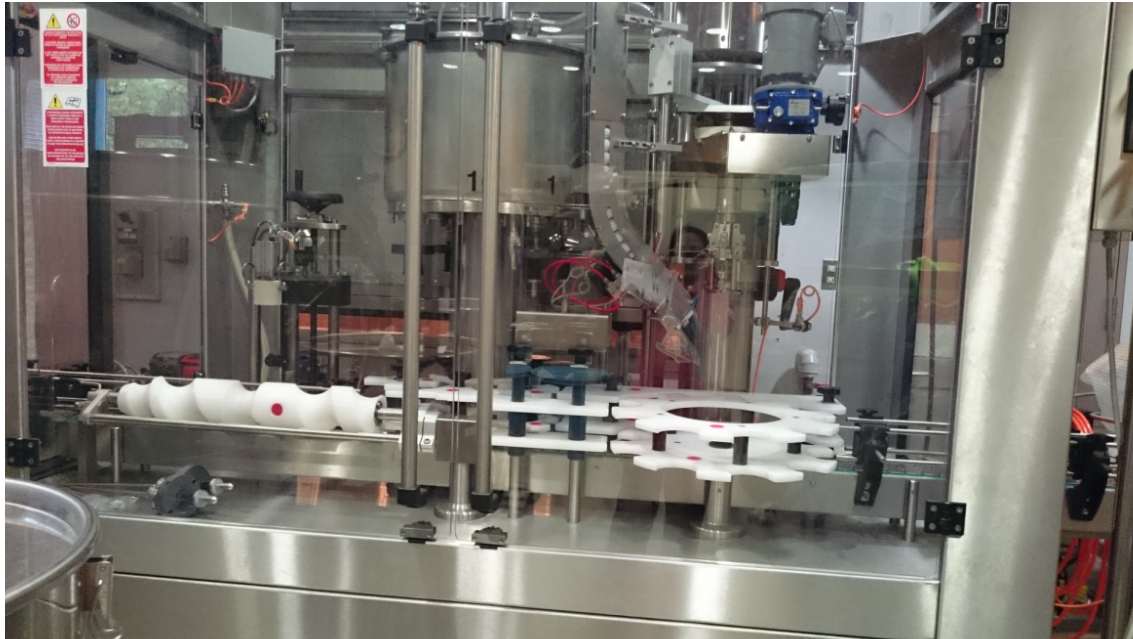


Fig 2 (above). Automated bottling machine at Villa d'Est. Fig 3 (left). White wine fermentation process at Villa d'Est. Vats here are all in stainless steel, which increases quality and costs of wine production. Fig 4. (below) Winery at Rue De Vin



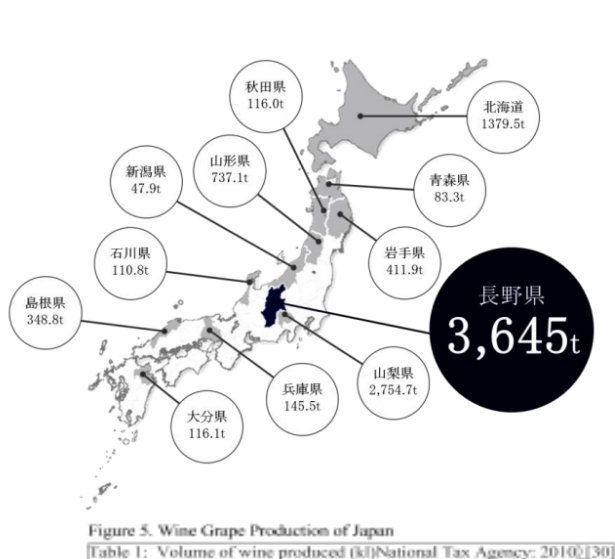
In viticulture, chances of a young generation owning a vineyard from scratch are dim. Acquisition of abandoned farmlands for viticulture is harder than it seems, as mentioned before, and cost for the reutilization of the lands are high.^{3,6} In addition, wine grapevines take, on average, three to five years before its harvest can be made into wine.⁵ During this period, no profit can be made from the harvest. Unlike vegetables, fruit trees are perennial and thus, once grown, are unlikely and best not to have any drastic alterations. This makes

cultivation management even more important as a tiny disease may ruin the whole plantation and cost the farmer not only money but time to start all over again.

Political and economical obstacles, such as the Agricultural Land Act, winemaking license, and alcohol tax, make this industry harder for young generations to join. Even at a small scale operation, Rue de Vin has expressed its wish in buying more land to increase its grape yield in order to reach out to a wider range of consumers by lowering the price of wine.³ At current state, growing grapes and making wine on their own results in setting a higher price for their wine. Thus, regardless of what quality of wine an individual wants to sell⁵, profits are only earned at a later stage and may not be enough at the beginning. This becomes the main reason why the current starting age of this industry in Japan is 30 years old⁵, at which individuals have earned enough to be able to support them through the beginning years of viticulture and viniculture.

With these said, there are still silver linings to this cloud. Two years ago, published in March 2013, Nagano Tourism Bureau had come up with a proposal to liven up and promote their wine under the name “Nagano Wine”. This proposal was called “信州ワインバレー構想” (Concept of Shinshu Wine Valley) and embodies regional characteristics into the wine industry, starting from cultivation to fermentation, marketing and consumption. Its goals are to bring out the terroir in wine and promote both Nagano Wine and wine culture.³⁰

By January 2014, 10 wineries have been listed under Chikuma Gawa Wine Valley, 25 wineries in total throughout Nagano Prefecture.³⁰ This may seem few in number but in actuality, Nagano Prefecture produces the most wine grapes in the whole country, with wineries that use a high proportion of its own prefecture’s wine grapes.(refer to Figure 5) A majority of the grapes or must that is used by the top ranking prefectures in making wine, as seen in Table 1, is imported. In this regard, a signature wine labeled as Nagano Wine is not such a far-fetched idea any more.



順位	都道府県	醸造量
1位	神奈川県	34,676
2位	山梨県	21,029
3位	岡山県	8,224
4位	栃木県	6,849
5位	大阪府	3,572
6位	長野県	3,336
7位	北海道	3,025
8位	山形県	1,021
	その他	6,626
	全国計	88,358

ワインの都道府県別醸造量 (kt)
 (平成22年度課税出荷量: 国税庁)

With a climb in interest and popularity of wine (seen in Table 1), chances of more people being involved in the industry is likely to increase. Through the expansion of the wine industry, employment rates will be directly affected. Currently, regular staff members are kept to the minimum and are only required to increase during harvest seasons. Local organizations, such as 上田地域シルバー人材センター (Silver Human Resources Center of UEDA

Area), are able to lend a hand in these times. An opportunity like so, provides retired people a different lifestyle that not only exercises their bodies but also prevents other commonly seen social problems in elderly societies. Mariko Vineyard have been cooperating with the Silver Human Resources Center ever since 2003.⁸ Other vineyards/wineries employ people with another set of objectives in mind, such as Coco Farm and Winery in Tochigi Prefecture. They have provided and supported mentally disabled people with the ability to work and live fully on their own ever since 1958.¹⁵ Staffing is not exclusive to the young and the fit. Truth be told, there are many more groups of people that can be reached out to with an increase of compounds.

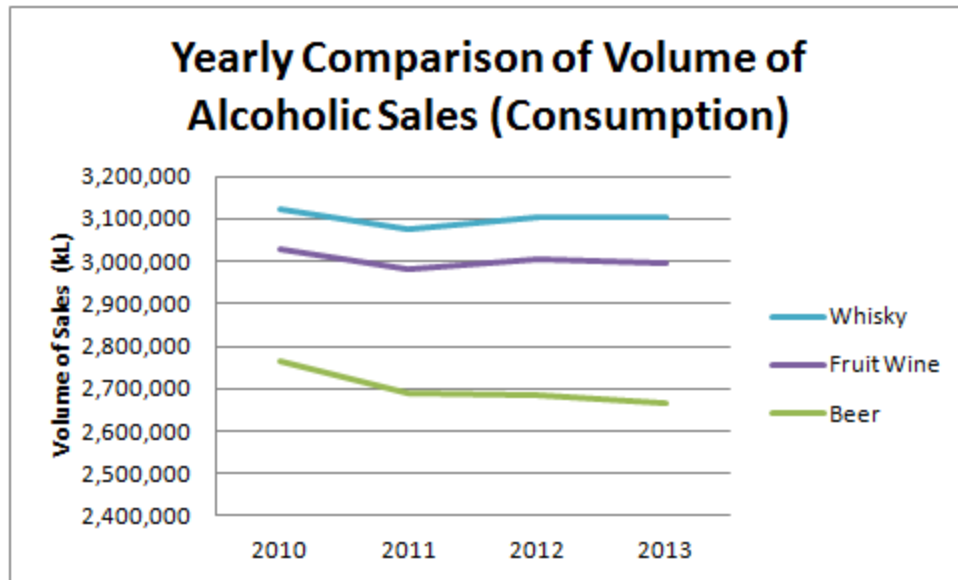


Table 2. Yearly comparison of alcoholic sales(consumption) in volume (kL)
Data Retrieved From: National Tax Agency

Not only is this beneficial to the employment issue, but knowledge of viticulture and viniculture can also be extended to the younger parts of society: children. Yoshida from Mariko Vineyard mentioned in the interview that he only joined in 2007, having worked elsewhere before, but have since then, become the most senior employee. This is not a good sign, in any way, since it indicated the high instability in staff members in this industry. Yet, he also mentioned that Mariko Vineyard have held trainee programs for his former high school (a professional training school). Among the current five staff members, one of them is also from the same school as Yoshida. This indicates that trainee programs such as this can help pull more younger generations into working in this industry.

Throughout Japan, there are a lot of professional training schools such as the aforementioned. Such schools provide courses in fermentation and at times, viticulture courses. In urban areas such as Tokyo, crash training courses on fermentation can be found.³¹ Worth mentioning is the high school in Nagano Prefecture that owns a winemaking license ever since 1943, which allows its students to be able to grow and make their own wine on campus. The curriculum at 塩尻志学館高校 (Shiojiri Gakukan High School) is so complete that it also offers wine training courses abroad.²⁹ The wine that was made at this school have helped create a signature wine that has come to be known nowadays as KIKYO Wine. This is a good model reference for what an educational facility can do to help both the students and the industry.

Lessons or courses such as the ones previously mentioned are restricted, more or less, to those involved in a specialized field of education. A better method to reach out to more people would be to organize guided tours around vineyards/wineries or hold field trips for those in primary education. This not only aids in educating the young ones in the mechanisms of viticulture and viniculture, but can also subconsciously show them another occupation that does not require emigrating to urban areas. Thus, alleviating both the emigration levels and aging problem in rural areas.

Another silver lining in this whole situation is Villa d'Est's Toyoo Tamamura, who was originally a writer and an artist. His accounts on the process of beginning his own vineyard and winery from scratch have led countless people into this industry and Tomishi City. Tamamura have shown the general public, with his own hands, that an amateur, who had no background in farming and fermentation, is also capable of making excellent wine. These books of his not only helped the industry as a whole but also shone a spotlight onto the Chikuma Gawa Wine Valley, showing the country its rich potential in viniculture.



Figure 6. Shop at Villa d'Est. Toyoo Tamamura is not only an author, but also an artist. At Villa d'Est, visitors are able to purchase goods from wine to postcards to specially designed wine glasses. There is also an art museum nearby that showcases Tamamura's artworks

Through the interviews, our group have felt the passion and enthusiasm in every vigneron or vintner we met. They did not hold back any information and gave it all freely in hopes of bringing more people into the industry. Nearly all the wineries/vineyards in Nagano Prefecture are willing to share their wisdom on viticulture and viniculture to those interested in this field of practice. Château Mercian's Saito have mentioned that one of the company's expectations for Mariko Vineyard is to show farmers that it is possible to self-sustain with wine grape cultivation. An ambitious expectation but one worth anticipating. This community spirit found in this valley will only aid in the development of the wine industry in Nagano prefecture.

Tamamura is currently also representing another potential company called "Japan Wine Agricultural Research Center" (JWARC). This company aims to convey to generations onwards the idea of correct wine grape cultivation methods, land revitalization and most importantly, a lifestyle that coexists with farming.¹⁶ JWARC is still under construction but is scheduled for completion in March

2015. It will consist of a winery, academy, shop and a lounge. The Chikumagawa ARC Winery, as it is formally called, will assist individuals by providing them with the required wine amount for winemaking license. This winery is capable of producing 30 to 40 thousand bottles of wine annually, using grapes from novice vignerons to local agricultural associations.¹⁷ Other than seminars or events held at this winery, this facility also boasts of its wine academy. Details of lectures and curriculum in Chikumagawa Wine Academy is still under development but courses will include all the skills and knowledge one needs to know in viticulture and viniculture.¹⁸ This is also still under development so currently, students are only promised an abundant, experience-filling course that can assist them in entering this industry. As of now, JWARC has put up an application form for novice vigneron training at two vineyards in Ueda City. This is a part of a project put out by a subsidiary of JA信州うえだ農協 (JA Shinshu Ueda Agricultural Association) called 信州うえだファーム (Shinshu Ueda Farm). Both vineyards utilizes abandoned farmland in Ueda City and will be used to teach trainees how to self-sustain through independent farming.¹⁹

As seen above, as many challenges as there are in revitalizing the rural areas in Nagano Prefecture, the possibilities that counter it are also endless. Younger generations may not have a chance at starting their own vineyards/wineries right after graduation but support or resources from local vineyards and wineries can be found almost everywhere around Nagano Prefecture. Aging problem cannot be quickly overturned in the agricultural societies but it can surely be alleviated through increasing popularity of Nagano Wine and numbers of wineries/vineyards. By increasing its popularity and profits, attention can then be pulled onto the viticulture and viniculture in Nagano Prefecture. As a result, increasing the population and decreasing the average age in the wine industry and achieving revitalization in rural areas.

Tourism

*Wine tourism can be defined as: visitations to vineyards, wineries, wine festivals and wine shows for which grape wine tasting and/or experiencing the attributes of a grape wine region are the prime motivating factors for visitors. Both go hand in hand in that in the tourism industry, wine acts as an attraction of a destination and becomes a major motivating factor for visitors. On the other hand, tourism is important for the wine industry in that it builds up the winery-consumer relationship and enforces it through the experiences offered on-site (for visitors) and brings in revenues (for wineries/vineyards).*¹³

Currently, the most well known prefecture for making wine in Japan is Yamanashi Prefecture, which comes as no surprise. Yamanashi Prefecture has been making wine ever since the 1870s with fermentation techniques and technologies that date even further back to Edo period, owing to the similarities in methods between soy sauce and wine fermentation.^{25,27} Château Mercian, which we interviewed both its vineyard in Ueda City and winery in Yamanashi, has had its roots in Katsunuma ever since 1877. With such a long and rich history in wine, it is not hard to imagine why Japanese citizens are more familiar with wine made in Yamanashi Prefecture than any other prefectures. Due to this reason, the first two top sources of wine come from Yamanashi Prefecture and Hokkaido in a survey drawn by the National Tax Agency.(see Figure 7)

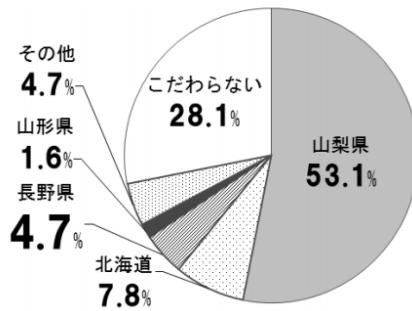
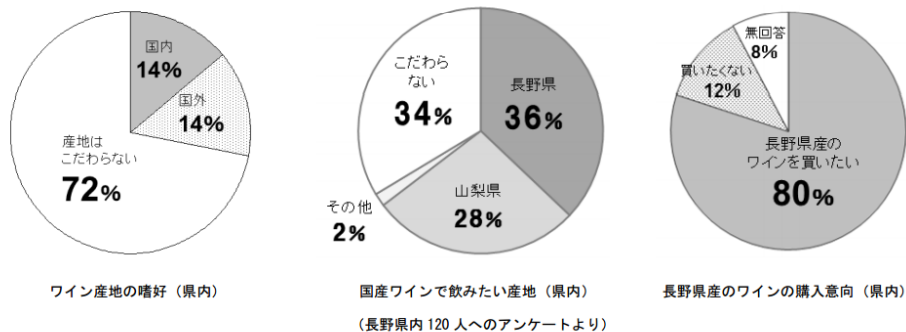


Figure 7. Preference of source of domestic wine (National Tax Agency) superscript[30]

Wine production in Chikuma Gawa Valley dates back to 1973 in Toshin area: a winery (Manns Komoro Winery) was built near Komoro City by Manns Winery. Currently, there are 10 wineries in Chikuma Gawa Wine Valley: St. Cousair Winery, Takayashiro Farm & Winery, Kusunoki Winery, Domaine Sogga's Obuse Winery, Nishi-iida Syuzouten, Villa d'Est GardenFarm and Winery, Rue de Vin, Hasumi Farm & Winery, Funky Château, and Manns Wines' Komoro Winery.^{24,30} In surveys done by National Tax Agency, preference of origin of wines is: International wine (44%), domestic wine (24.1%) and neutral (31.9%). In another survey on preference of origin of domestic wines, only 4.7% wish to drink wine from Nagano Prefecture, a huge difference compared to Yamanashi Prefecture's 53.1% favorability. According to questionnaires drawn by Nagano Tourism Bureau on 120 citizens living in Nagano Prefecture, 80% of the people were willing to buy Nagano Wine.³⁰ This means that there is a market for Nagano Wine, at least inside the prefecture itself.



Nagano Wine is different from other prefecture's wine in that a majority of the grapes used to make the wine comes from their own prefecture.³⁰ In this case, Nagano Prefecture ranks first in wine grape production. (Figure 5) For instance, when we visited Château Mercian in Yamanashi Prefecture, they had wine made from not only Yamanashi Prefecture's wine grapes, but also those from other prefectures, even those made from imported wine grapes and must.^{7,26} (refer to Figure 8) Yet, not a lot of Nagano Wine are sold outside its prefecture. A stroll in the supermarkets, liquor shops, and restaurants in Tokyo, and you will surely find a high percentage

of foreign wine as the figures show. Even if you are fortunate to come across Japanese wine, the chances of finding one bottle of wine from Nagano Prefecture are near to zero. Many of the Japanese wine seen in urban areas come from bigger companies such as Suntory, Sapporo, Château Mercian and Manns Wines.

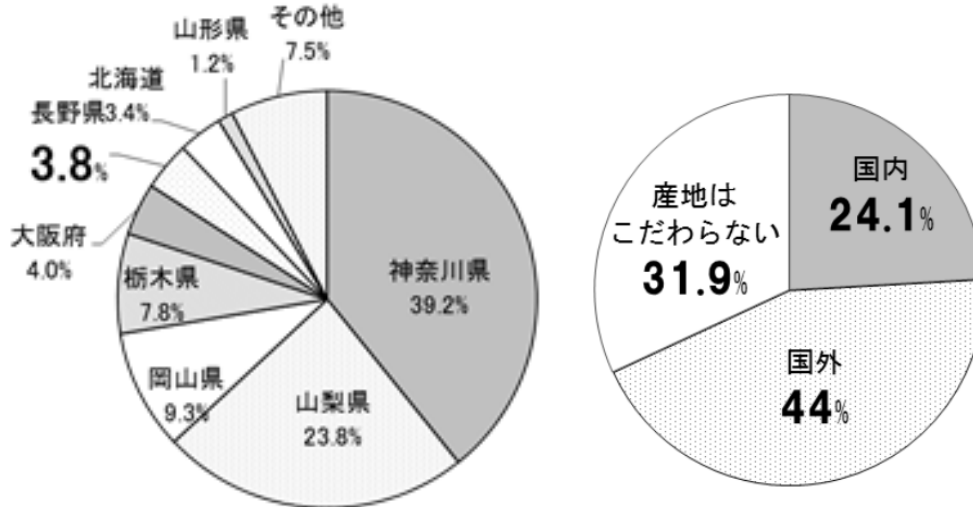


Figure 8 (Left). Amount of wine produced (%) (National Tax Agency:2010) superscript [30]

Figure 9 (Right). Preference of origin of wine (National Tax Agency) superscript [30]

Expansion of the distribution of Nagano Wine to other parts of the country is a task that wineries will have to work together with its local government or the tourism bureau with. At present, wineries in Nagano Prefecture are either selling wine in their own shops or distributing it in shops, hotels and restaurants inside the prefecture. This is one of the reasons why Nagano Wine are rarely seen outside of the prefecture. Some wineries have also set up online stores to sell their wine but this is limited to wineries with larger supplies. Another reason why wineries in Nagano Prefecture have not been able to widely distribute their wine was also due to supply issues. Nagano Tourism Bureau mentioned in their proposal that with the elevation of popularity, distribution routes for Nagano Wine and diversification of merchandises should increase.

Another factor to why Nagano Wine's popularity is lower than Yamanashi Prefecture (other than the differences in their history of winemaking) is the lack of signature. Yamanashi Prefecture has long been producing wine ever since 1870.²⁷ Koshu grape variety have been grown ever since 1000 years ago, but as table grapes.¹ It was only until the 70s when they were also grown for wine yet this was in smaller quantities back then. Ever since Koshu grape had been classified as a variety found only in Japan, it has helped Yamanashi Prefecture's wine to reach to other parts of the world.²³ In accordance to this, a lot of the wine grapes grown in Nagano Prefecture remain as European varieties. The most widely seen grown varieties in Chikuma Gawa Valley are: Chardonnay, Sauvignon Blanc, Merlot, Syrah, and Carbernet Sauvignon.²⁵

A proposal brought up by Nagano Tourism Bureau to increase popularity and recognition of Nagano Wine is to increase consumers' knowledge of its wine in Japan. This can be done through events, seminars, lectures and online propaganda. Putting up advertisements, displays, media coverage along with professionals to introduce the wine in bigger cities such as Tokyo will also be an important step in building up the proposed signature wine "Nagano Wine". Wine made from wine grapes grown in Nagano Prefecture are also to be labeled specifically on the wine bottles as another means of setting up the Nagano Wine signature. This was seen on wine bottles from Château Mercian, where origin of wine grapes were labelled on all the bottles. Another method that was brought up (and has been executed) in this proposal was to set up an official site for Nagano Wine on the internet.



Figure 9. Homepage of Nagano Wine that is maintained by Nagano Tourism Bureau.

On this site they wish to provide people with the most genuine and accurate information on Nagano Wine. Information such as recent events, awards won, wine-related resources and news coverage can then be shown on this website to both wineries and consumers.²⁴

A deciding factor in a consumer's will to buy wine is its price. There is an increase in the number of women consuming wine, with a majority from women in their thirties.⁵ Wine in Japan ranges from 1000 yen to 4000 yen (those under 1000 yen or over 4000 yen are also available but can be regarded as the extreme). Depending on the income, the consumers' age will also vary. But, the general public can accept wine ranging from 1000 to 1500 yen per bottle.⁵ Prices at Villa d'Est start from 2060 yen to the highest, 5140 yen for a 750 mL bottle of wine (tax included). Manns Winery had more varieties and even more astonishing prices, ranging from the cheapest, 739 yen to the most expensive, 7560 yen for a 720 to 750 mL bottle of wine (tax included). If we take a short look into the purchases our group members made during these past interviews, a trend similar to those of the general public can also be seen. Those with deeper pockets and had

an affinity for wine were willing to buy higher priced wine, whereas those with lower funds would more likely contemplate between the price and quality. An average price that were spent among our group members ranged from 1000 yen to 3000 yen (excluding outliers such as high priced wines), close to what Tamamura mentioned.



Figures 11. Comparison of Wine prices



The pricing of wine is related to the quality and supply of the wine, which brings up another problem in Japanese viniculture: supply. Endo from Rue de Vin implied that the reason for their wines being slightly higher priced than average wines were due to the amount of yield harvested. This is a commonly seen give-and-take situation in winemaking. As opposed to table grapes where yield means everything, vigneronns prefer lower yields to produce higher quality wine. The higher the yield is per vine, the lower the sugar content per grapes, directly affecting the resulting alcohol percentage in wine.^{1,2,25} Thus, nowadays, a lot of Japanese vigneronns are choosing quality over quantity when it comes to growing wine grapes. But with the gradual increase of interest in wine comes the big problem of insufficient supply. One of the reasons for the slow growth in grape production in Japan is in its cultivation, which includes the amount of land available to grow wine grapes.⁵ This is a delicate issue: A sudden increase of grape production may cause huge damage to the current import of international wine, grapes and must.³ As can be seen in the figures below, Japanese wine relies heavily on imported raw ingredients to help with domestic demands. Thus, at the moment, pricing will not be able to change drastically any time sooner in order to maintain this balance.

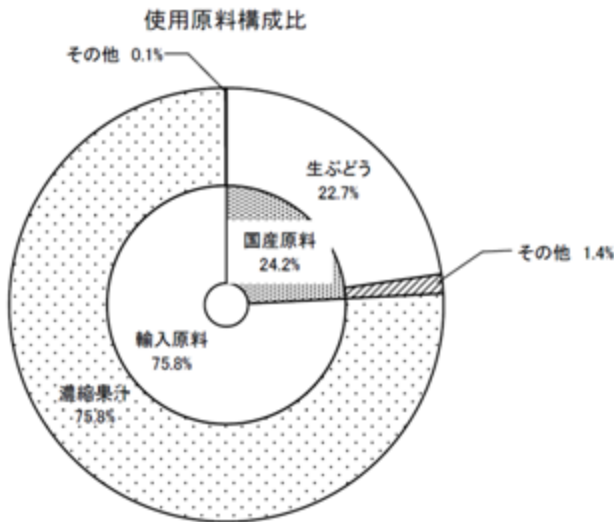
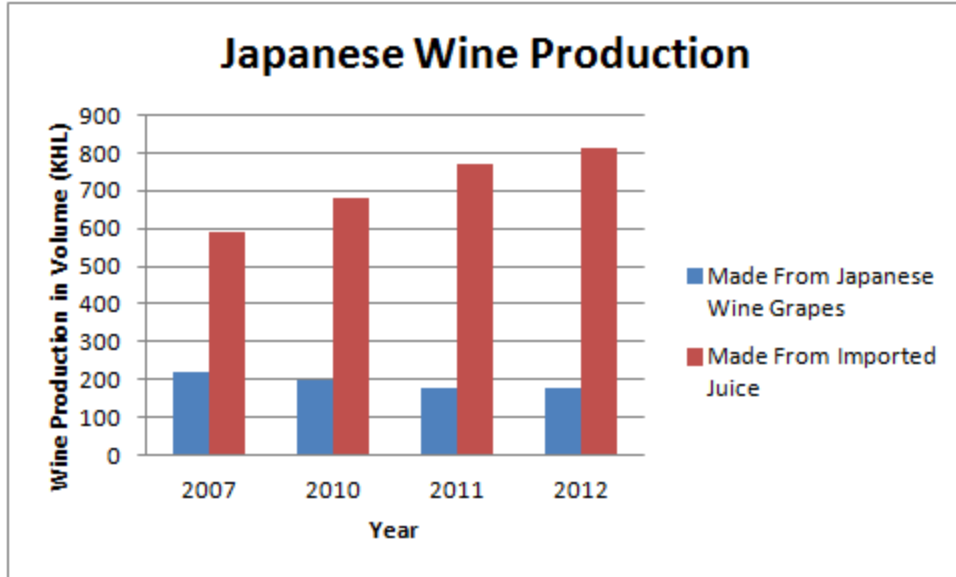


Figure 11 (Top). Production of Japanese wine from domestic or imported grapes (National Tax Agency) superscript [26]

Figure 12 (Left). Proportion of raw ingredients in Japanese and domestic wine.(National Tax Agency 2013) Domestic wine refers to wine bottled in Japan, whereas Japanese wine specifically refers to those that completely uses wine grapes grown in Japan. Only 24.2% of domestic wine uses wine grapes grown in Japan. The other 75.8% of domestic wine uses imported grapes or must.

Transportation to Nagano Prefecture is similar to those in other prefectures. Routes include by way of plane, train or car. The most common means of transport is by train or car. From Tokyo to Nagano City, it takes around 2-3 hours by train and costs around 8000-10000 yen. A cheaper method would be to go by highway bus, costing around 4000-5000 yen and 4 hours on the road. Traveling around Chikuma Gawa Valley was not convenient, especially if your objectives were to visit wineries. This is due to the fact that wineries and vineyards are set far apart from each other and usually situated in the mountainous areas. Thus, without a car, it would be most inconvenient and near impossible to travel around the valley. Regarding this, Nagano Tourism Bureau has set out plans to make full use of public transportation, such as trains and buses, and liven up wine tourism in this area.³⁰

Demands of a visitors to a wine region may vary, yet its foundation is the same: few people will travel to these regions specifically to buy wine, thus, a majority will wish to gain

either knowledge or experience from their time at the wineries/vineyards.¹³ In Chikuma Gawa Valley, almost all of the wineries/vineyards offer guided tours and lectures/seminars on site.^{1-3,5-9} Wine festivals have also been held both in the region and at urban areas. At these festivals, wineries promote their wine and at the same time, participants are able to enjoy wine-tasting and get more in touch with wine culture.^{24,28}

Collaboration with nearby tourist attraction spots or local tourism bureau can also act as an advantage for both wineries/vineyards and tourism centers.³⁰ Mariko Vineyard have been hosting wine grape harvest tours to visitors from nearby onsen (hot spring) hotels.⁸ Further relationships between the local onsen committee and Mariko Vineyard also included wine lectures for hotel liquor shop staff.⁸ On a side note, Jimba Plateau Committee had expressed that it was a shame that Mariko Vineyard did not have its own winery nearby.^{4,10-11} Here in Japan, it is very normal for tourists to buy omiyage (souvenirs) back and as Ueda City did not have any souvenir stores, a lot of tourists were unable to buy any omiyage to bring back to as presents or as memento.^{4,10-11} This is an unfortunate situation for vineyards, where demands for wine sales can help elevate profits. Thus, more installments of wineries should be considered throughout Chikuma Gawa Valley.



Figure 13. Omiyage (souvenir) shop at Nagano train station. Placement of wine in shops such as this can increase popularity of Nagano Wine and boost sales for individual wineries/vineyards. But at the same time stock supplies and cost of transportation must be put into consideration, which may reflect on the prices.

Nagano Tourism Bureau had also proposed similar approaches to wine tourism. One such approach is called ワインツーリズムの推進 (Winery Rhythm) in which the general concept is to link wineries to either nearby wineries/vineyards or nearby facilities (such as hotels, onsen, tourist attraction spots, restaurants, etc). Ideas involve travel package plans from other areas to Nagano Prefecture, travel plans at wineries, accommodation packages, etc.

Contrary to wine tourism, agritourism focuses on the relationship between agriculture and tourism. Agriculture in this sense refers to viticulture. On the same sense as wine tourism, this offers tourists a different type of recreational activity and hands-on farming experience. City dwellers are usually more intrigued and attracted by this type of tourism due to the lack of farming chances in urban areas. As a result, agritourism is also a chance for vineyards to promote both their products and provide visitors with grape-related knowledge. Vineyards in Japan hold

Figure 14 (Left). Volunteer harvest at Rue de Vin.

Figure 15 (Right). Rose wine that was given to participants at Mariko Vineyard's Harvesting Festival in 2013. Red or white wine was given to participants initially but due to their wish for an easier to drink wine, rose wine was given. These bottles of wine were not manufactured in Nagano Prefecture, but in Yamanashi Prefecture, due to the lack of winery. Saito has hinted at the possibility of a winery in Nagano Prefecture in the near future.

either volunteer harvesting or harvesting experience plans during grape harvesting season in September. Some even hold harvest festivals that range anywhere from 1 day to 6 days. Mariko Vineyard have held such type of festival for the nine consecutive years (480 people participated in 2013).²⁸ Wine was given as a reward participants.⁸

In accordance to agritourism, revenues can also be boosted for the vineyards and wineries. At Rue de Vin, volunteers were seen purchasing wine after harvesting at the shop next to the vineyard. At Villa d'Est, not only was there a shop, but there was also a restaurant/cafe and garden/farm on site. Landscape design was also employed on areas surrounding the winery and restaurant, making it even more appealing and worthwhile for the visitors. In Katsunuma Town in Yamanashi Prefecture, tourism was put to its full potential by filling the whole town with designs of grapes or wine glasses. This allowed the town to have a very clear signature look, thus, making it more impressionable for the visitors.



Figure 16 (Left). Grape-themed arch at Villa d'Est. Taken at Villa d'Est. This shows how a little bit of design into the scenery can make it more worthwhile for visitors, which will ensure both satisfaction in customers and higher possibility of recommending this destination to others. Figure 17 (Middle). A bus stop in Katsunuma Town. Katsunuma Town has referred to itself the "Town of Grapes and Wine" and has various designs of both wine glasses and grapes incorporated into their town. Figure 18 (Right). A manhole in Katsunuma Town.

Tourism can bring in revenues for the wineries and vineyards, allowing companies to continue on. Without profits, companies eventually will die out just like how farmlands were abandoned in the end. Viticulture takes around 3-5 years before harvest is profitable and viniculture takes time in acquiring the required skills and machineries. Both takes time and money, which makes it hard for young generations to start from scratch in this industry. A huge concern for a lot of wineries is the insufficient supply of domestic wine grapes, thus, opting for more vignerons in Japan. Yet, for grape farmers, the path of vignerons is too risky and too uncertain so currently a majority of the farmers grow both table grapes and wine grapes at the same time. A method to help alleviate the risks for both novice and experienced farmers would

be to increase the popularity of Nagano Wine as a whole, which can indirectly elevate revenues for the grape growers. With self-sustainability, resources and support from local authorities/organizations, the chances of having younger generations involved in the wine industry can then increase (in the end, help alleviate aging problem).



Figure 19. Wine shop at Manns Winery in Nagano Prefecture. Wine sales is an important factor that should be considered in both tourism and rural development. Revenues from tourists (seen in picture) can help sustain smaller wineries and vineyards. Seen on the left are wines put out for customers to taste. This not only allows customers to feel the differences between various wines, but also encourages and increases sales. A good collaboration of marketing and wine tourism.

Another aspect of this whole situation is that with the increase of people involved, the more wineries and vineyards can be established. Meaning more farmlands that can be put to better use, which, in turn, decreases the amount of abandoned lands. In addition to better land utilization, Nagano Prefecture has the closest climate to European countries.²⁵ Thus, it is plausible that Nagano Wine can follow France's cultivation methods by growing grape varieties according to soil types. Even with the same grape variety, the different terroir in Nagano Prefecture will be able to give it its own signature wine. Awards won by wineries in Nagano Prefecture in recent years also boast of brighter futures for Nagano Wine.^{24,26}

International Production

Development of vineyards and wineries in Nagano is contributing to the global transition of vineyard growth. The world's total vineyard surface area is decreasing mainly due to the reduction of European vineyards. As of 2013, viticulture accounts for 7519 mha of farm (Figure 1) (OIV). Reduction of European vineyards has been partially offset by the increase in the planted surface areas in the rest of the world (Figure 2). Europe's share of the vineyards has declined from about 62% of total in 2000 to 55% in 2013. The share of all other regions is increasing, in particular in Asia, which now accounts for 24% of the world's vineyards. Despite decrease in area under vine, grape production has been increasing since 2000.

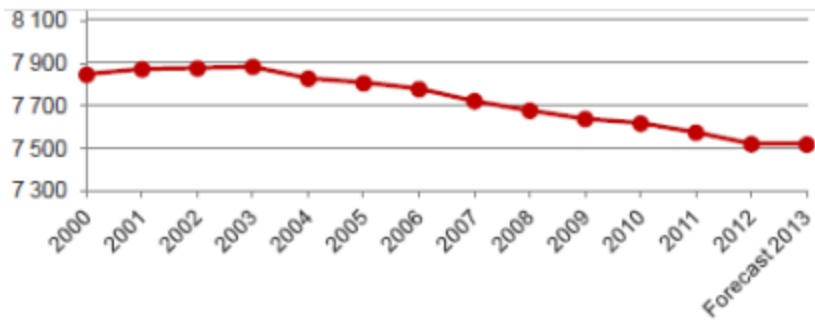


Figure 20 (Left). Trends in 2000-2013 of the vineyard area (OIV hp)

Figure 21 (Right). Evolution share of global vineyard in 2000-2013 (OIV hp)

Figure 22 (Below). Trends in 2000-2013 of world grapes production (OIV hp)

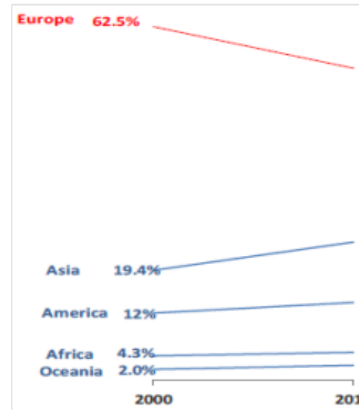


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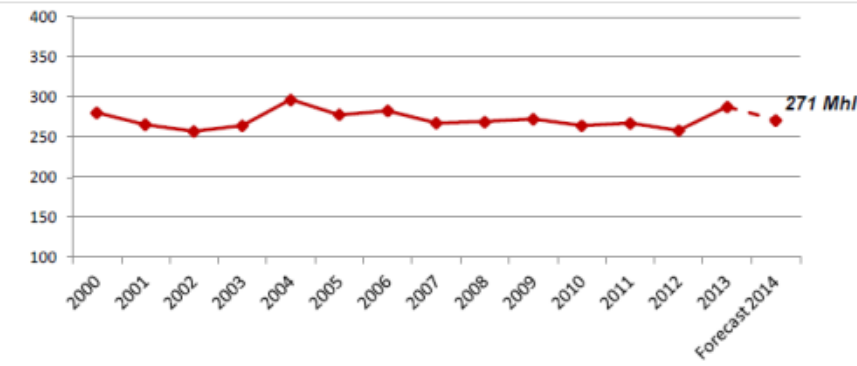
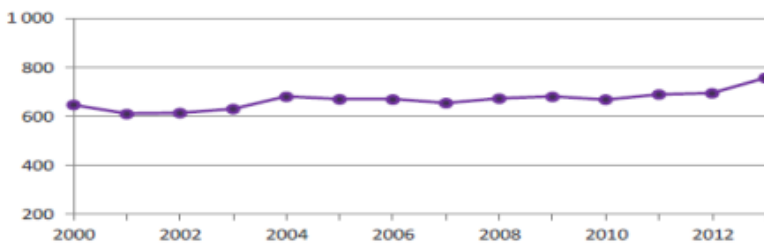


Figure 23 (Left). Trends in 2000-2013 of world wine production (OIV hp)

Table 2. Wine yield of major wine producer (OIV hp)

1000 hl				2013	2014	2014/2013	2014/2013	Ranking
	2010	2011	2012	Provisional	Forecast	Variation in volume	Variation in %	
France	44 381	50 757	41 548	42 004	46 151	4147	10%	1
Italy	48 525	42 772	45 616	52 429	44 424	-8005	-15%	2
Spain	35 353	33 397	31 123	45 650	37 000	-8650	-19%	3
United States (2)	20 890	19 140	21 740	23 500	22 500	-1000	-4%	4
Argentina	16 250	15 473	11 780	14 984	15 200	216	1%	5
Australia	11 420	11 180	12 260	12 310	12 560	250	2%	6
China (3)	13000	13200	13810	11780	11780	0	0%	7
South Africa	9 327	9 725	10 568	10 980	11 420	440	4%	8
Chile	8844	10464	12554	12 846	10 029	-2817	-22%	9
Germany	6 906	9 132	9 012	8 409	9 725	1316	16%	10
Portugal	7 148	5 622	6 327	6 238	5886	-352	-6%	11
Romania	3 287	4 058	3 311	5 113	4 093	-1020	-20%	12
New Zealand	1 900	2 350	1 940	2 480	3 200	720	29%	13
Greece	2 950	2 750	3 115	3 343	2 900	-443	-13%	14
Brazil	2 459	3 460	2 967	2 710	2810	100	4%	15
Hungary	1 762	2 750	1 776	2 666	2 734	68	3%	16
Austria	1 737	2 814	2 125	2 392	2 250	-142	-6%	17
Bulgaria	1 224	1 237	1 442	1 755	1 229	-526	-30%	18
Switzerland	1 030	1 120	1 000	840	900	60	7%	19
Croatia	1 433	1 409	1 293	1 249	874	-375	-30%	20
OIV World Total(4)	264 372	267 243	256 222	287 600	270 864	-16736	-6%	

Evaluation of world wine consumption

The data supports that the wine consumption growth no longer driven by traditional wine producing and consuming countries, but by the emergence and development of new consumption poles. At this time of the year, no reliable information is available on the level of consumption in the different markets for 2014. The data available show a consolidation of the global consumption estimated at around 243 Mhl. The 2000-2013 period has been characterized by a transfer of the wine consumption: today about 39% of the wine is consumed outside European countries, compared to 31% in 2000. New consumers (USA, China, UK and Australia) have entered the scene, due to increasing incomes and changes in eating habits. But wine consumption seems to be decreasing in the traditional wine countries of southern Europe (Italy, France and Spain). Despite the shifting in wine consumption patterns for countries, Japan is not in the top consumers of wine. Despite consumption of France and Italy are decreasing, they have consumption 20-25 times as large as that of Japan. The annual wine consumption per one Japanese is still small, and it is with the 52nd place in 72 countries while a tendency to increase includes overall consumption amount. The increased global in trade over the past 20 years has resulted in a shift in the wine consumption patterns, not only in Japan but internationally.

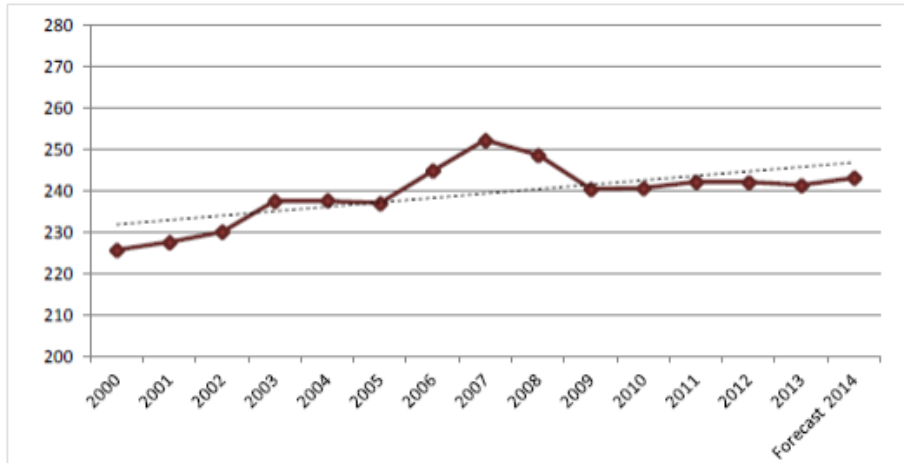


Figure 24. Trends in 2000-2013 of world wine consumption (OIV hp)

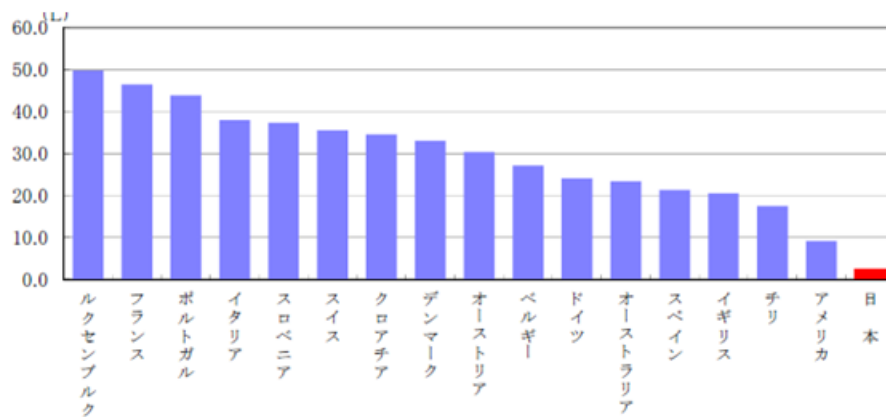


Figure 25. World wine consumption per capita (Mercian hp)

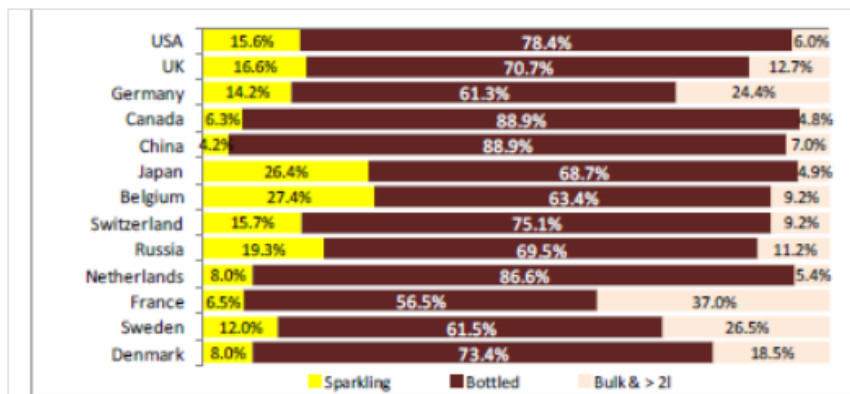


Figure 26. Top importers – by type of wine in value terms 2013 (OIV hp)

The high wine demand in the domestic market of Japan can support the development of most winery and grape cultivation in the Nagano Prefecture. Two of the most significant booms of wine

consumption growth occurred in the late 1980's and a boom in red wine in 1997 and 1998 (Figure 18). Over 50% of the Japanese population drinks wine at least once per week, with 7% drinking wine every day. According to the survey in 2010, there are over 39.2% wineries in the Yamanashi Prefecture. 7.4% in the Yamagata Prefecture, 6.8% in Nagano Prefecture. In the recent years 2008 to 2010, while more companies were gaining profits, thanks to the high added value of the production and better management of the companies, the sales of the main wineries nationwide were overall decreasing.

The quality-price ratio is a major determinant of the success of a particular wine or producer – 70% of consumers do not care what wine brand they purchase as long as the price is right. Producers offering low to mid-range priced wine are most likely to succeed on the Japanese market. Most of the wine consumption occurs in urban areas with more than 70% of premium wines (¥3000 JPY or more) consumed in the greater Tokyo area alone. Rural areas tend to consume more traditional drinks such as shochu, sake and beer. But overall, there is a growing consumption in wine (Figure 19). The majority of consumers are willing to distinguish the geographical origin, and are interested in telling about differences of characters of wine according to its producing regions. Since high costs are required to produce wine with grapes grown in Japan, we have to make better quality of wine in Japan. This situation results in small production of Japan wine. In these circumstances, consumers tend to appreciate wine representing regional character as high quality wine.

A high quality Japanese white wine is produced from original grape kind "Koshu" cultivated for a long time in Yamanashi which has brought Yamanashi success. The delicate and clean taste has good affinity with the Japanese food. In Lake Toya Summit, the leaders of each country gave a high evaluation. Toward quality improvement of the Koshu wine and recognition improvement in the global market and the expansion of the market, Yamanashi works on "Koshu wine EU export project" (Koshu of Japan, KOJ) by a plan for three years. After having performed promotion in London that is the place of dispatch of the world wine information, they plan the PR in the Netherlands and each North Europe country. and they aim at having put Koshu wine in 100 celebrity restaurants in the EU area in the third year. By such an action, recognition of Koshu wine and the wine from Yamanashi improves, and a brand is established in the foreign countries. These connected for image enhancement of the whole Yamanashi. Furthermore, as well as the wine industry by the main local industry, affect the wide industry including agriculture and the tourism and expect whole Yamanashi more active. Perhaps a method of improving Nagano wine perception will be establishing a Koshu equivalent specialty for Nagano Prefecture.

The largest demographic of consumers of wine ¥3000 JPY or more are men and women between the ages of 30 and 40 years old. As Japan's population ages, the market for high quality wines may increase. Older population have more disposable expenditure to purchase while individuals in their 20's are less likely to have found steady employment and thus have a smaller disposable income. Women are the leaders of wine consumption and hold about 80% of the market because they have most of the household's purchasing decisions, are purchasing wine from supermarkets and convenience stores more often. Nevertheless, women purchase more but men drink more often and in greater quantities. Wine of Nagano will focus on the multiple facets of the domestic market, developing a regional character for high quality wines and targeting audience of the wine sold in convenience stores and supermarkets.

1. 消費数量推移

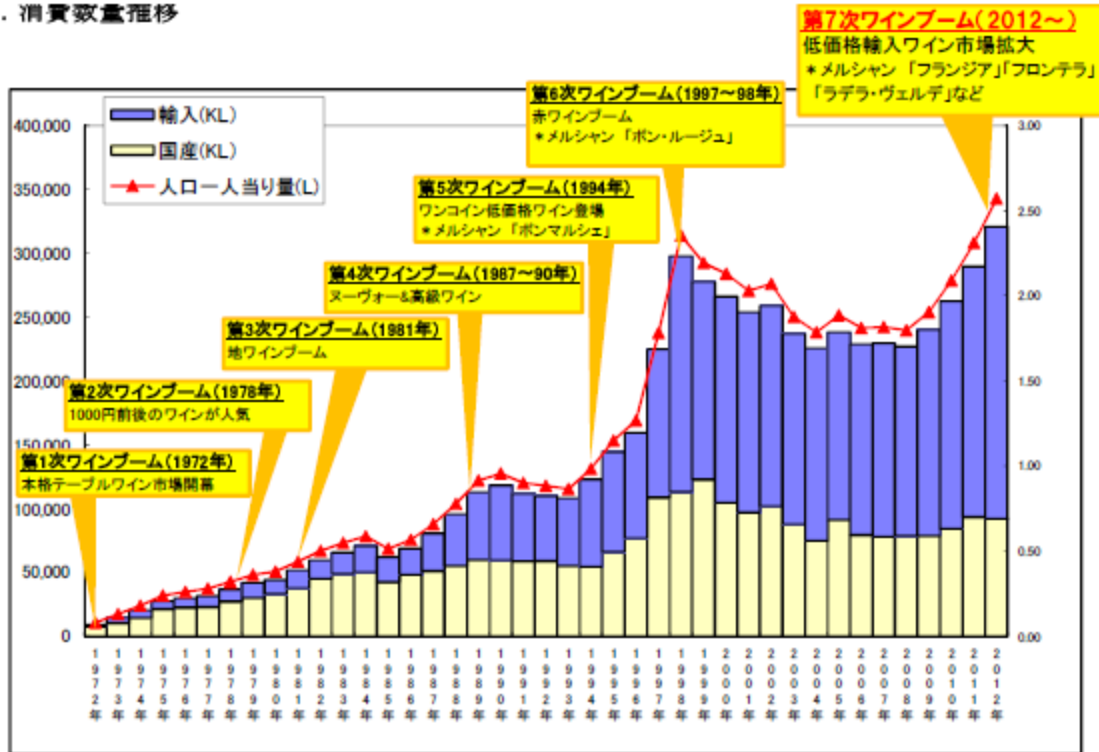
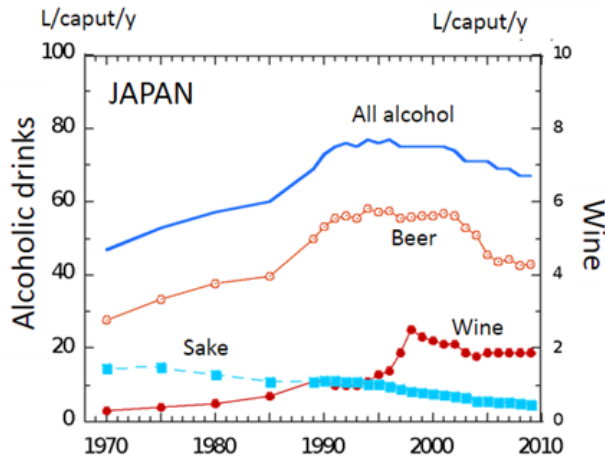


Figure 27 (Above). Trends of wine consumption (mercian hp)

Figure 28 (Below). Alcoholic consumption in Japan (国税庁 hp)



Regulation of wine trade

In recent years, the import and export of wine are increasing, and countries around the world come to be able to enjoy the wine of various countries. Saying this pushes up the wine demand for wine consumers is not exaggeration. However, wine trade includes various regulations, and exporters have to adhere to these regulations. Because the standard for wine of each country and technical standards of the production are different, the exporting country cannot export wine if they do

not meet the standards of the importing country. These regulations are discussed between many countries such as World Trade Organization or OIV (International Organization of Vine and Wine), but many problems are still left.

Severe regulations of EU is applied to wines imported to the EU countries. Europe built various systems and standards, developed country of the wine. Europe raised quality of the wine for more than 100 years and to follow a brand of famous wine. After the war, United States of America and Australia, which exported wine to all the countries of the world, were required to loose the act of European

regulation. However, the difference in philosophy, customs and manufacturing methods for the making of wine in each country, makes it difficult to match the standards of EU. On the other hand, in Europe, AOC (appellation d'origine contrôlée) system accepted geographical indication as an aspect of intellectual property in 1994 and presented this idea to the WTO. However, the complicated problem of geographical indication creates planned differentiation with wine from other countries resulting in trade disorder, according to the United States.

Japanese wine exports are the same level as GI wine, and indication is supposed if it is difficult to be admitted in an export destination. EU strict policies divide particular GI wines from table wines and even have established differences in handling. The minute negotiations and discussion with the export destinations will be necessary to increase the export of Japanese wine. If international registration of GI is agreed in WTO, the Japanese GI wine can receive same as GI wine of EU treatment. However, international registration is less likely to be established for the moment. The main winery in Japan has been hoping for an invitation to OIV for more than 60 years. Association of Japan of winery, a wine brewing association and trade group of Hokkaido, Yamagata, Nagano and Yamanashi submit a member demand book to OIV of Japan to Secretary of National Tax Agency in 1989. Japan must perform discussion and negotiations with other countries immediately to enter the international market. It is necessary for Japan to participate in OIV immediately to express Japanese opinion about regulation of global wine trade, if Japan would like to make any headway into the global market.

Conclusion

In order to improve land utilization and increase growth in areas experiencing pressures from an aging population, encouraging growing markets like wine production may help Nagano Prefecture. However, there are major hurdles to overcome ranging from ownership law, high capital required to enter the market, and growth in the market. Pioneers of Chikuma Gawa Valley have already made headway into developing a wine industry in Nagano prefecture. Recommendations on improving the marketing of Japanese wine specifically of Nagano, seeks to highlight wine production as well further the tourism industry, through transportation and brand. Problems of transportation or distribution channels have severely limited Nagano wine to the prefecture, despite the overall growing demand of wine in Japan. Internationally, many signs point to Japan, not being able to break into the market, however, an international market not a requirement for revitalization of Nagano through wineries. Companies and individuals alike have large roles to play in the increase of Nagano Wine Production. Revitalization of abandoned farmland and villages in Chikuma Gawa Valley by development of this area through wineries and vineyard. can hopefully expand this phenomenon within Chikuma Gawa Valley to the greater Nagano Prefecture.

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