

In August 2017, I went on a three week trip to Europe. This included the countries Germany, Italy, and Switzerland. For this report, I will focus on my time visiting wineries in the Chianti region of Tuscany and my visit to an alpine farm in Switzerland. It was interesting to learn about how each region's climate and topography will affect their agricultural practices.

Italy



Wine is a major part of Italian culture and is commonly consumed with regular meals. This could be because before water was able to be filtered and disinfected, wine would be added to it to kill any bacteria. Also the tannins in the drier wines help to bring out the flavors of the sharp cheeses and more “gamey” meats (such as boar). Either way, winemaking has left its mark on Italy.

While staying in Florence, I became aware of how simple their traditional dishes were to make but the high quality of ingredients made them delicious. We went on a day's tour of the Chianti Classico wine region that gave my family insight in the production of wines, balsamic vinegar, and olive oil. The region we visited is a stretch of land between the cities of Florence and Siena. A drier climate (which promotes deeper root penetration) and mineral rich clay soil of this region is perfect for viticulture.

The weather patterns of each summer can also have an effect on the quality of grapes produced. It is ideal for early summer to start off with some rain, and then to remain dry until harvest. If it rains too late in the season, there is a risk that the grapes will split. Recent years have seen some difficult drought, and vineyards in this specific region are not permitted to irrigate their crops. This leaves them exceptionally vulnerable to the negative economic effects of a drought.

All of the wineries visited produced the traditional Chianti Classico with a DOCG designation. DOCG stands for Denominazione di Origine Controllata e Garantita (controlled and guaranteed designation of origin). This wine is produced in the heart of the Chianti zone. To achieve the DOCG designation, the wine must be comprised of at least 80% of the Sangiovese grape variety, and the remaining 20% can be any other red grape variety. As of 2006, white grapes are no longer permitted to be used in the production of these wines. The minimum alcohol level is 12% with a minimum aging period of 12 months. For a wine to be considered Riserva, the alcohol content must be 12.5% and be aged for at least 24 months. This is a pretty rigorous testing process. There is even a minimum age requirement for the plants they use.



*Chianti Classico Emblem -
The Black Rooster*

An interesting thing that I learned was the type of oak cask used to age the wine will actually have an effect on the flavor. A wood-fired barrel will leave almost a smoky flavor, and the wines aged in

“French” barrels are more floral. It is not uncommon for producers to use multiple kinds of barrels during the aging process.



Almost all of the wineries we visited also produced olive oil and balsamic vinegar. The earlier that olives are picked, the sharper the flavor of the final product. Those picked later in the season or even from the ground will taste much milder. Vinegar was produced from the grapes that these winemakers deemed too low quality for wine production. However, the end product is still delicious. A high quality balsamic is aged for more than 10 years. During this time, it will be moved to different types of casks to layer types of flavors. As a balsamic ages, water evaporates. This creates an almost sweet, tangy flavor. We tasted a batch that was over 30 years old, and the consistency was like syrup.

Switzerland

During my visit to Switzerland I stayed in the Müstair valley in the canton Graubünden. It is a small village at the easternmost point of the country – on the edge of the country’s only national park. Where I stayed was a short walk to the Italian border, and an even shorter one to a 1300 year old monastery. It really is as picturesque as it sounds. Switzerland is a mountainous country with a very large ecotourism sector. Here, I was able to have a more hands-on experience.



What is most notable about Switzerland’s agricultural sector is the emphasis on ecological practices. Farming is a heavily subsidized industry. Among other things, farmers are given subsidies to wait until after the wildflower blooming season to end before cutting their grass. This is so that native pollinators are able to forage. There are also regulations on the amount of pesticides that can be applied to their land. In some cantons, farmers are responsible for maintaining the perimeter of their cleared lands – if the areas become reforested, they legally cannot be restored as farmland. Ecotourism and agritourism are such major contributors to the Swiss economy. I believe the Swiss see it economically logical to spend a great deal of their resources on preserving their lands – the metaphorical golden goose.

Due to most of the country’s topography, it is really hard to cultivate crops on a large scale – but raising livestock (most notably dairy cattle) thrives. Around the village, there were multiple tracts of land owned by various families in the village. At an elevation of 4000 feet, hardy crops were chosen that could produce during a short growing season. The most common crops were wheat and rye to be sold commercially, and grass to be harvested and stored for the local dairies. Farther up in the

Alps are mountain meadows, and forests. Some of the trees are in protected areas and some are in plots zoned for agroforestry. In this way, cattle can graze (maintaining the underbrush) and trees can be harvested and replanted.



I stayed with a family of generational dairy farmers with a history dating back to the mid-1500s. A traditional family will raise and milk their dairy cows during the fall, winter, and spring. The cows are then sent up to eat rich grass in the summer pasture and dry off in preparation for calving. I went on a hike to visit one of the alp's summer milking parlors and see some of the cows. The summer is spent doing farm maintenance and cultivating commercial crops. Most of the harvesting occurs in August. This was during the time of my visit, and I was able to try my hand at driving a tractor.

To determine whether the wheat or rye is ready, a small machine tests the moisture content of the “berry”. However a preliminary test using your nail is helpful. You want to be able to make a dent, but for it to still be firm. It certainly takes practice.

Grass is cut in August. Farmers try to plan it during a stretch of nice weather. Due to its unpredictable nature, the grass is raked a couple days after initially being cut to speed up the drying process. Storage varies from farm to farm, but the most traditional way is piled in a clean, dry area. There are some really old buildings that have slats along the walls that were used for ventilation. The ones I did see have been recently converted.

This specific village is almost completely chemical pesticide free and is non-GMO. Interestingly, a 5 minute drive across the border to Italy shows the epitome of commercial agriculture in South Tyrol – the region responsible for producing almost all of Italy's apples. The most common crop seen were by far apples, with some corn fields. However, the apple trees have been selectively bred to be almost bush-like. They are held up by poles to support the branches with growing fruit. Although these plants are highly productive and take less time to mature, they tend to not last as long as the traditional apple tree. As you can see in the picture to the right, the apple trees are hardly trees, but you also get an idea of the topography the local farmers are contending with.



I also spent a couple days just outside of the capital city of Bern. It is in the Seeland region, which is considered to be the most fertile (and agriculturally important) region in the country. Historically speaking, the area used to be wetlands. By building canals and lowering the water table, the land was drained (leaving behind a very rich soil). There are multiple hydroelectric dams in the area – when I lived there, I often saw the parallels between there and my home in Washington State. The specific village I visited (Wiler bei Seedorf) was in the area responsible for the cultivation of sugar beets to be processed in the neighboring town of Aarberg – a sugar supplier for the entire country.

Harvest is not until the fall, and the canola crop had already been harvested a few months prior. However, I was able to walk the roads that went past dairy farms. The most notable difference between the dairies in Wiler and those in the Alps are that the cows in the “Berner Oberland” usually remain at the farms all year (because there are no Alps for them to be taken to) and the alpine farmers make use of summer pasture at higher altitudes. It was visible the effects the topography had on village structure. Bernese farms were more widespread and took up more pasture near the homes. Alpine homes are much closer together and there is little to no pasture in the immediate area.



Vantage Point in Seeland - Facing Jura Mountains

In January, I will be revisiting Mustair. This will be during the peak of the milking season, where I hope to gain more insight on alpine dairy farming when it is in full swing. Having grown up in an agricultural area, I am quite familiar with my local agricultural practices. It will be interesting to see how the Swiss methods differ from the US. A good reference point will be Krainick Dairy in Enumclaw, WA. I can compare and contrast methods within breeding, feeding, and facilities.