

## TERROIR – WHAT INFLUENCE DOES IT HAVE ON TEA

Terroir is a word linked by most only to the world of wine, but the word can also be linked to the tea plant. Terroir is a term used to describe the general conditions of a certain place, like the soil, climate, water, location and altitude among many other things, all which affect the final aroma and taste of both tea and wine. Today I'll be focusing on tea rather than wine and discussing in detail how each different component of terroir affects tea from the very beginning of its journey. My hope is that by the end of this post, your appreciation for the teas you love the most will be amplified tenfold and you'll in turn be inspired to learn more. A great thing about tea is that it's an ever-learning subject and just when you think you have learnt all you have to learn, tea will show you otherwise.

First of all let's look into elevation. Elevation plays such a huge factor in not only the way that tea tastes but also how it feels in the mouth during and after steeps. There is a reason that throughout history teas from higher elevations have been highly prized by tea lovers. Throughout almost all tea categories, elevation is the deal breaker and can often be the difference between a good tea and an incredible one. Lower elevation you get a refreshing taste but higher elevation gives you a longer finish.

However, that does not mean that the higher elevation numbers are just a selling point, because the higher the elevation the more effect it has on every single aspect of the tea's growing journey, playing a part in pest control and flavor development among many other aspects. The higher elevations bring purity to the tea plants because they are so far from the industrial areas, resulting in extremely low levels of pollution. The higher up you go, the less likely you are to get an infestation of insects, meaning you can pick later into the year without worrying too much about the bugs and you don't need to use pesticides. The environment is much colder and that big change in temperature stunts the growth of the tea. This means that the tea has more time to react to the environment and has more time to slowly drip those compounds into the leaves, that stress on the plant among other things is what leads to the complex and incredibly fresh-tasting flavor profiles these oolongs are known for.

The plants get a higher concentration of sunlight due to being so much closer to the sun which enables the tea to develop catechins and polyphenols which will also affect the overall flavor profile. The downside to that however is that the tea will have less theanine. The high mountains are within the clouds and because of that, the humidity can be quite high which helps the leaves be more succulent and thick. The mist, however, does a great job of calming down the heat and dryness.



Climate and differences in weather between the seasons are one of the most important factors when it comes to the overall quality of the finished tea. Changes in climate and overall weather conditions contribute to levels of bitterness or astringency, and can change the way that the tea tastes. Tea plants thrive in climates that are warm and humid, but if there is little to no variation in the weather, this will cause a flat tea with an incredibly boring flavor profile. This is because terroir is a set of environmental stress triggers and it is those that cause the plants to develop and release secondary metabolites and these are what create unique and interesting flavors, even before the leaves are harvested and processed.

Tea that has had to endure more rainfall than usual will grow too quickly and as a result of that it will take on a bitter flavor and a tea that endured frost may grow more at a slower pace due to the cold and will instead develop a very unique and pleasant taste. The reason that rainfall can affect so much is due to the fact that it is an incredibly important resource for the tea plant and when there is a usual amount of rain the plant uses this to create new leaves rather than helping the more mature leaves and buds to survive. However, when the plants have survived frost which puts a lot of stress on them, they are able to create resources and funnel them to the existing buds and leaves, which in turn gives the tea much more depth of flavor.

During spring is when the tea plant grows new shoots, taking advantage of the longer days and using all of the nutrients stored throughout the winter. The effect that summer has on the tea plants is that the plant converts the excess sunlight into natural sugars, the excesses of which are sent down to the roots of the tea plant and stored until the winter, which helps the plants survive the cold weather and make sure that new shoots can sprout during the spring. During the autumn as the weather starts to cool, the tea plants struggle to produce new growth again. These slower processes cause additional flavor complexity to develop in the leaves, however variations in annual weather caused by climate change have begun to make the harvesting seasons much more complicated. Inconsistency in each year's weather means you could try the same tea from the same farm every single year and each and every year would taste different. Sometimes weather conditions at the most extreme ends of the spectrum however can completely ruin a year's harvest.



The soil that tea plants are grown in has a huge impact on the plant and depends highly on the bedrock beneath the land as well. The soil mineral content is reflected in the tea so a rock soil will amplify that, which is a quality that is highly sought after by a lot of tea lovers. That minerality can also be affected by the mineral content of the water used to water the plants, because the soil absorbs all of it. Those minerals not only affect the flavor and mouthful of the tea but also help to make the plant stronger and aid it to produce strong leaves for years and years to come. The acidity levels of the soil also play a huge part in the quality and taste of the tea.

Tea grows best in soil that has a PH level of between 4.5 and 5.5. The nutrients that are essential to growing quality tea include but are not limited to calcium, magnesium and nitrogen. As the tea plants grow and the roots absorb all of the essential resources from the soil, the level of those resources becomes lower and lower which is why many tea farms use fertilizers to replenish those resources. They are also an essential part of terroir and the fertilizer used will depend completely on the choice of the farmer, though most will stick to natural fertilizers. For example, some farmers in Japan use grass in their fertilizers in order to help amplify the grassy vegetal notes of the tea.

Latitude or geographical location determines how many harvests can be done a year. Teas grown on the equator can be harvested all year as there is not ever much variety in their weather. teas that are grown further south or north of the equator can go through a dormant phase throughout winter where they go through intense climatic stress and therefore produce more secondary metabolites causing changes in aroma and flavor. Right after that dormant phase, a tea harvest usually referred to as the first flush takes place. First-flush teas are always highly sought after and therefore a hefty price tag is usually attached to them. You'll probably have heard that term before when people talk about darjeeling but it covers all tea harvested at this time of the year, it is just referred to by different names across the world. For example, in Japan the first green teas of the year are referred to as shincha.

Other components that affect terroir and therefore tea include but are not limited to local ecosystems, insects like jaccids that are in part responsible for the incredible bug bitten oolongs we all know and love, surrounding woodland and even nearby plants. For example, a mountain

covered in flowers will amplify the floral elements in the tea over time, or a mountain surrounded by orchards will over time give the tea closest to it a fruit aroma and flavor. The human effect on tea is unsurprisingly huge, picking the tea leaves leads to growth of new leaves. After a certain percentage of a plant leaves have been harvested the aroma and flavor is affected due to the altering of the tea after so much of its growth has been harvested.



Tea is also influenced by the culture and history in the places in which it is grown, harvested and processed, with each and every farmer using their own unique techniques passed down through many generations of their family. Unique cultivation, processing and preparation methods can result in teas with wildly disparate tastes. Over time through research and experimentation, new cultivars have even been created, and to this day there are tea farms world wide experimenting with new processing techniques to create brand new teas.

The best way to help yourself learn how to taste terroir is to simply drink a lot of tea. Concentrate during your sessions and make as many notes as possible. After some time has passed you'll be able to compare these notes and discern the unique factors within each terroir. Note down similarities and differences in teas from the same country but from different areas in the country to see just how much difference subtle changes in surrounding terroir can affect tea, you'll be shocked by the results you see.

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