

# What is the ideal climate condition for tea cultivation?

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The climate not only determines the suitable place to grow tea plants but also affects the quality of tea grown in that area. However, many different climatic conditions can be suitable for tea cultivation. Tea plants can grow from tropical to subtropical climates, but often require high humidity and heavy rainfall during the growing season.

### Where is tea grown?

The origin of tea plants in **tropical and subtropical climates**. Until now, tea plants have been widely distributed to places with natural conditions that are far from the original place.

Now, tea plants are grown in many countries around the world. Major tea growing regions are mainly concentrated in Asia, Africa, South America,... China, India, Kenya, Sri Lanka, Vietnam,... are some of the major tea-producing countries in the world.

### What is the suitable tea cultivation temperature?



*Tea cultivation temperature*

Temperature is one of the main factors affecting the growth of tea and determines the time to harvest tea buds in a one-year cycle.

Tea requires cool to warm temperatures with at least 5 hours of sunlight per day. The average annual temperature for tea plants to grow well is in the range of 15 – 23°C. Tea plants require a total annual temperature of 3,500 – 4,000°C.

Temperatures that are too high or too low both affect the accumulation of tannins in tea. When the temperature is higher than 35°C, the process of accumulation of tannin is inhibited. If the temperature exceeds 35 degrees continuously for a long time, it will lead to burning tea leaves.

In contrast, when the temperature is low, it will change in the physiological and chemical composition of tea buds. This adversely affects the growth of the plant and the quality of the buds. Green tea grown at high temperatures has lower levels of the compounds caffeine and catechins than at lower temperatures.

## How much rainfall do the tea plants require?



*Rainfall the tea plants require*

Rainfall and rainfall distribution have an influence on the growing period and length of the tea harvest season. Therefore, it directly affects whether the productivity is high or low.

The average total rainfall in a year for tea is about 1,500 mm and the rain is evenly distributed over the months. Minimum annual rainfall is 1000mm, monthly 50mm. This is the best condition for tea plants to grow well. The average rainfall of the months during the tea-



growing period must be greater than or equal to 100 mm. If less than 100 mm, the tea will not grow well.

The productive effect of watering is also very obvious in some tea-growing countries. As in Vietnam, watering experiments showed an average increase in bud yield of 41.5%. The quality of the irrigated tea buds was significantly increased compared to the non-irrigated tea buds.

## What humidity is good for tea cultivation?



*Tea growing humidity*

Tea is a tree that harvests young buds and young leaves. Therefore, it is a moisture-loving plant. Tea requires high air humidity, during the growing period the appropriate air humidity is around 85%.

High humidity, morning fog, and heavy dew favor the growth of buds and young leaves. Humidity below 70% will greatly affect the growth and yield of tea.

Humidity has a great influence on the growth and quality of tea. When sufficient humidity is provided, the tea plant grows well. The leaves are large and soft, the buds are young and the quality tends to increase.



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