

Liu Bao Tea

現代  
六堡  
茶生  
產

# MODERN LIU BAO TEA PRODUCTION IN WUZHOU CITY

茶人: *Donated by Wuzhou City Agricultural Bureau*

*In recent years, as the influence of Chinese black tea, or hei-cha, has risen, Wuzhou's Liu Bao tea has also seen a swell in popularity. Its distinctive flavor and beneficial health properties have gradually earned it renewed recognition and esteem among the world's tea lovers. Aged Liu Bao has been playfully referred to as "an antique you can drink," and is often compared to the famous vintages of puerh tea.*

**L**iu Bao tea was originally produced in several small villages in Cangwu County, part of the Wuzhou City area in Guangxi, including Lion Village and the tea's namesake, Liu Bao Village. The industry has grown a lot since then, and Liu Bao is now produced in other surrounding villages and townships such as Cangwu County's Libu, Jingnan, and Shatou; Teng County's Lingjing, Jinji, Xinqing and Mengjiang; Mengshan County's Huangcun, Xihe and Xinwei; Cenxi City's Shuiwen, Nandu, and Daye; and two villages in districts of Wuzhou city: Wanxiu district's Wangfu Village and Dieshan District's Xiaying Village. Altogether, this equals an area of around 2866 hectares of tea plantations. There are currently 24 different tea manufacturers, and together they produce around 7300 tons of Liu Bao tea each year.

## *The Natural Environment of Liu Bao Tea Gardens*

Wuzhou City is situated near the Tropic of Cancer and has a subtropical monsoon climate—it's hot and humid with plenty of rain. The average

yearly temperature is between 19.3°C and 21.4°C, while the monthly average is over 10°C throughout Wuzhou (except for Mengshan County, where the monthly average is below 10°C). The highest recorded temperature is 39.9°C and the lowest is -3.2°C. The average yearly rainfall is between 1400–1600 millimeters, with around 1533.7–1789 hours of sunshine per year, and a typical relative humidity of 76%–82%. The region is usually frost-free for 336–349 days of the year. All these elements add up to form a climate in Wuzhou that is perfectly suited to growing tea plants.

The Wuzhou city area has a unique topography, characterized by a low-lying central region surrounded by elevated land on all sides—traditionally described using the phrase "eight mountains, one river, one field." Several rivers flow through the region, including the Xunjiang, Xijiang, Guijiang and Beiliu rivers. Altogether the total surface area of Guangxi's 784 rivers and waterways makes up 9.28% of the total land area. The area where Wuzhou Liu Bao tea leaves are grown is lush with vegetation all year round, with 72% forest coverage and a plentiful water supply. The soil is mainly clay and sandy loam and tends to be

slightly acidic, with a pH level between 4.5 and 6.5. The soil layer is deep and loose, with plenty of humus, nutrients, and water, providing a fertile environment ideal for growing tea and cultivating the microorganisms that are unique to Liu Bao.

Wuzhou's geographical, climate, and soil conditions are unique to the area and contribute to the region's microbial diversity and the growth of the beneficial fungus that Liu Bao tea produces. The environment has remained reasonably stable throughout the long history of Liu Bao tea production in Wuzhou. Makers of Liu Bao traditionally aged the tea in caves, which preserved the population of beneficial microorganisms that are produced during the manufacturing process. This provided a favorable biological environment that ensured Wuzhou could continue to produce pure, authentic Liu Bao tea, with its unique characteristics that are so intimately tied to the local geography.

## *The Liu Bao Manufacturing Process*

These days, the first of three parts of the Liu Bao production process is



done as follows: “kill-green,” rolling, fermenting in piles, rolling again, and drying. The second part of processing includes sifting and shaping, separating the stalks and leaves, heaping into piles, cold fermentation, drying over a stove, steaming, pressing into baskets, and aging in a cool place.

The first half of the production process starts with the tea picking. Each bud is usually picked with three or four leaves—the tea leaves are picked during the day and processed at night. For the kill-green step (firing to halt oxidization), the temperature of the wok is 160°C and the leaves are cooked in batches of around 2–2.5 kilograms; with a kill-green machine it’s around 7.5 kg each time. Once in the pan the leaves are first fired while covered, then stirred and tossed, then a combination of the two—young, tender leaves are tossed for longer, while older leaves are covered for longer. The kill-green process usually lasts 5–6 minutes, until the leaves and buds are soft and the stalks bend but don’t break, and the tea leaves turn the appropriate darkish green color. After the leaves are spread out to cool they are rolled, either by hand or by machine (more often by machine these days). When rolling by hand one can roll 1–1.5 kg at a time;

with machine-rolling the volume varies according to the size of the machine.

When rolling Liu Bao tea leaves the main thing is for the leaves to remain intact. Breaking down the cells of the leaves is of secondary importance—they only need to be about 40% damaged, so an appropriate amount of pressure must be used. The general process is as follows: roll lightly, press lightly, press more firmly, press lightly, roll lightly, then separate the leaves after rolling. First-grade and second-grade tea leaves are normally rolled for 40 minutes, while third-grade leaves and below are rolled for 45–50 minutes.

After rolling comes the process of heaping, where the semi-processed tea leaves are piled into baskets or onto bamboo mats to ferment. This process is key in determining the color, aroma, and flavor of Liu Bao. The damp tea leaves are piled 3–5 centimeters deep with about 1.5 kg of tea per basket, and are left to ferment for at least 15 hours. The heaping process doesn’t require very high heat—the heat source need only be around 60°C, and the tea leaves should be heated until they’re around 50–60% dry before heaping. The temperature of the tea piles themselves needs to stay around 40°C—if it rises above 50°C the leaves will burn,

so the piles need to be turned over from time to time to dissipate the heat.

After fermenting, the rolled tea leaves will have started to unfurl slightly, so they need to be rolled again for 5–6 minutes. Then comes the drying process, which has two parts: “first firing” over high heat, then “full firing” at a lower temperature. The tea leaves are traditionally spread out about 3.3 cm deep on bamboo drying frames, and should preferably be heated using pinewood. The temperature of the flame needs to be around 80–90°C and the leaves are turned over every 5–6 minutes. Once the leaves are 60–70% dry they are taken off the heat and spread out to cool for half an hour. Then they are fired again at a temperature of 50–60°C in piles around 6.6 cm deep for 2–3 hours, until the tea stalks snap when bent.

The second part of the Liu Bao tea manufacturing process is refining the tea. These days, this begins with cold fermentation: moisture is added to the tea leaves until their water content reaches 12%; then the leaves are fermented in heaps for 7–10 days to supplement the fermentation that occurred in the early processing. When the moisture content of the leaves has been reduced to an average of around 10%,





they are steamed for half an hour, until they are completely soft and the water content has increased to 15–16%. After this, the traditional method involves storing the tea in heaps for 20–30 days, so that the moisture and heat can act on the tea leaves and further alter their chemical structure. The antioxidant action of the tea polyphenols causes an increase in compounds such as theaflavins and thearubigens, enriching the color, flavor, and aroma of the tea until it takes on the unique character of Liu Bao.

The last step in the process is an essential one: aging. Once the leaves have been steamed for the second time, they are cooled down, and the remaining moisture is allowed to evaporate. The finished Liu Bao tea is packed into baskets and piled up in cool, damp earthen storehouses to age. After about

six months of aging, the liquor of the mature tea develops a deeper red color, a cool, refreshing mouthfeel, and that classic aged Liu Bao flavor. These qualities gave rise to the common epithet used to describe Liu Bao tea: “red, rich, mellow, and aged.”

### *Distinct Characteristics*

The defining features of Liu Bao are similar for both the *maocha* (“raw” or semi-processed tea leaves) and refined Liu Bao, with a couple of differences. Liu Bao *maocha* leaves are a glossy blackish-brown, with thick, heavy leaves. The liquor is a deep red with a mellow aroma and a rich, refreshing flavor; the used leaves are a reddish brown. Refined Liu Bao tea leaves have a similar dark, lustrous appearance,

with the addition of “Golden Flowers,” the spores of a highly-prized type of fungus that grows on the tea. The liquor is also a deep red; the flavor is mellow and refreshing with a pure aroma and a unique betel nut fragrance. Liu Bao tea can be stored for a long time—the more mature, the better.

These days, two different kinds of refined Liu Bao tea are available on the market: those made using the traditional manufacturing process, and those made using modern methods. Both kinds are essentially the same, though with some subtle differences.

The leaves of traditional hand-made Liu Bao tend to be a little thicker and weightier. The liquor is a slightly lighter red compared to machine-processed Liu Bao, a brownish-red that recalls the color of Chinese dates. By contrast, it has a stronger flavor, and when ma-



茶 Traditional processing of Liu Bao tea always included aging before the baskets even left the factories. Some factories used air raid tunnels to age the tea, alternating between the more humid tunnels and drier warehouses. Nowadays, some factories are returning to the traditional methods and aging their teas once again in earthen warehouses, like the one shown here, to make sure the tea is ripe enough before it reaches the consumer.

茶 Also known as *Eurotium cristatum*, most of the golden bunches are actually spores. Chinese people have always determined the quality of many teas by how much “Golden Flowers (Jin Hua)” they have. This is especially true of the brick teas of Hunan, where such mold is most desirable. Traditionally, Liu Bao tea was not characterized in this way, though it is sometimes found with this kind of mold on it, as shown here.

tured for a long time, becomes genuine aged Liu Bao.

Liu Bao made using modern methods has leaves that are fine, tightly rolled, and evenly shaped. The liquor is a deep red, while the flavor and aroma are not as strong as those of traditionally hand-made tea. The use of machinery in modern Liu Bao processing cuts down on aging time and allows the tea to be produced more efficiently.

## Health Benefits

In Traditional Chinese Medicine, Liu Bao is considered a “cooling” and “warming” tea. In addition to the general health benefits that it shares with other teas, Liu Bao also has some unique properties. It can alleviate excess internal heat and ease breathing,

as well as relieving heat in the summer and dispelling excess moisture. It is good for the eyesight, aids digestion, and energizes and clears the mind. It can be drunk after a meal to aid digestion, or on an empty stomach to settle the digestive system. After drinking Liu Bao you’ll notice a sudden feeling of comfort and ease in both mind and body. Liu Bao is perfect for drinking when it’s hot and humid—it provides relief from hot summer weather and brings a welcome sense of refreshment.

Liu Bao contains many essential amino acids, vitamins, and trace elements. In addition to this, scientific studies and the observations of Liu Bao enthusiasts both attest that this tea is more effective at breaking down fats than other types of tea, and can help lower levels of fat compounds, cholesterol, and triglycerides in the body.

When drunk regularly over a long period, Liu Bao can have benefits for fitness and weight loss, as well as maintaining a restful mind and a healthy digestive system.

## Brewing Methods

When brewing Liu Bao tea, the requirements for the water are a bit more particular than usual: in order to allow the nutrients in the tea to fully dissolve, it must be brewed with properly boiling water. It’s important to use very hot water to “rinse” the leaves, as it cleanses the tea leaves and “awakens” the tea. If the temperature of the water is less than 100°C, it’s difficult to fully achieve the rich, refreshing flavor that Liu Bao should have. It’s also important to warm up your tea implements



before brewing and serving, as this also helps to awaken the active properties of the tea that have long lain dormant within the leaves.

## Main Varieties

Liu Bao tea plants are bushy with densely-growing branches. The tea can be divided into four categories according to the color of the tea buds. According to an informal survey, about 60% of Liu Bao is made from green buds, around 20% from purple buds, 5% from large, light-colored leaves, and 15% from fragmented leaves. The tea made from green buds is considered superior, as well as being produced in the greatest quantity.

The tea plants naturally grow to be around 2 meters high and 80 cm wide, with densely growing branches and about 3.6 cm between joints on each twig. The leaves are oval-shaped, about 8.3 cm long and 3.6 cm wide, and grow on an upwards diagonal. The surface of the leaves is smooth and flat or slightly bulging, and the edges are serrated.

The tips of the new shoots are usually a soft green, with a few purple ones. The shoots grow closely together and don't have much fuzz, and tend to stay fairly soft and tender. Liu Bao is made from early-sprouting tea plants—the buds begin to appear in the middle of March, and are harvested in early April. By the middle third of October the trees are no longer growing sprouts, and the remaining leaves are sparse and of lesser quality. They turn a darker green with strongly serrated edges and blunt tips, and begin to curl in slightly.

## Major Manufacturers & Brands of Liu Bao

Nowadays there are many brands of Wuzhou Liu Bao tea. Some of the most well-known brands in mainland China, in order of influence, are the Wuzhou Tea Factory's "Three Cranes" brand, the Wuzhou Tea Import and Export Corporation's "Zhong Cha" and "Duo Te Li," and the Wuzhou Maosheng Tea Ind. Co., Ltd.'s "Maosheng" brand. In terms of overseas exports, the Wuzhou Zhong Cha Tea Co., Ltd. more or less

has a monopoly on the market with its "Duo Te Li" brand. Other brands include The Yintai Liu Bao Tea Co., Ltd.'s "Cang Shun" brand, the Cangwu Liu Bao Tea Co., Ltd.'s "Cang Song" brand. There are also some tea brands that are named after the company that produces them, for example the Wuzhou Guding Liu Bao Tea Factory's "Guding" brand, the Wuzhou City Gui Jinhua Liu Bao Tea Co., Ltd.'s "Gui Jinhua" and "He Shou" brands, and the Wuzhou Qian Nian Liu Bao Tea Co., Ltd.'s "Qian Nian (Thousand Years)" brand.

Aside from the tea factories mentioned above, some of the other main Liu Bao tea producers in Wuzhou are the Wuzhou City Suiyuan Liu Bao Tea Factory, the Wuzhou City Gushu Liu Bao Tea Factory, the Cangwu County Huaqiang Liu Bao Black Tea Refining Factory, The Wuzhou City Xiaoya Liu Bao Tea Factory, the Wuzhou City Yuanshan Liu Bao Tea Co., Ltd., the Wuzhou City Yi Hu Chun Liu Bao Tea Factory, the Wuzhou City Liu Bao Village Heishi Mountain Tea Factory, the Wuzhou Liu Bao Mountain Tea Co., Ltd., the Guangzi Liu Bao Village Tea Co., Ltd., and the Tengxian Fuding Tea Company.

This impressive array of companies helps to paint a picture of today's flourishing Liu Bao market and the importance of this iconic tea to the Wuzhou area. As suggested by its namesake, Liu Bao Village, this is a tea that is intrinsically connected to the land it came from, and the tea we drink today has been shaped by Wuzhou's unique ecological environment, as well as the changing practices of Liu Bao tea makers over the centuries. It really has earned its status as a prized "antique."



迷雾中  
覺道路

茶 On a foggy, misty morning, one of the authors, Mr. Peng (who also wrote the most thorough book on Liu Bao tea in Chinese, called simply "Liu Bao") shows us different kinds of plants and leaves used to make Liu Bao, including purple bud and zhuye. This garden is also organic, which is inspiring.



