

What is Tea?

IN 30 SECONDS...

- Tea is made from leaves of *Camellia sinensis*, or closely related cousins.
- There are six unique types of tea, all made from this one plant: Green, Yellow, White, Oolong, Black and Dark (Pu-erh tea).
- Each type is differentiated by the techniques the farmer uses to develop flavor, most notably, oxidation (allowing the leaf to turn brown).

Camellia sinensis is the botanical name of the tea plant. It is an evergreen that is pruned and cultivated into a bushy shape, making harvest of tender young leaves much easier. If left to grow wild, it will naturally become a tree. Now grown all over the world, *Camellia sinensis* is native to Southeast Asia, an area including China, India, Tibet, Burma (Myanmar), Laos, Bangladesh, Thailand and Vietnam.

There are **six unique types of tea**, all made from the harvested leaves of this one plant, or its closely related cousins. Each type is **differentiated by the techniques the farmer uses to develop flavor**, such as firing, rolling, roasting, etc. This is called the production, or the crafting of the tea, and this is what determines how the tea is categorized.



CAMELLIA SINENSIS leaves grow in different shapes; from upright and narrow, to flattened and broad. Only the youngest, rich with flavor, are harvested for tea. As with wine grapes, there are varieties of the tea plant. These are called cultivars, short for *cultivated variety*.

WHAT IS "OXIDATION"?

This word is used a lot to describe tea. It's an enzymatic reaction that happens when tea leaves are rolled and bruised, releasing juices that react to air by turning color. This is similar to a chopped apple turning brown. The level of browning (oxidation) varies from light to very dark. Oxidation is a key step in tea production that distinguishes the types of tea.

These are the six categories of tea, listed in their order of oxidation.

LEAST OXIDIZED

Green Tea
unoxidized

Fresh aroma and vegetal flavors. Green teas are fired right after harvest to halt oxidation.

See picture to the left.



Yellow Tea
very light oxidation
& fermented

Rare, limited production. Very delicate flavor; utilizing techniques of both green and white tea crafting.



White Tea
very light oxidation

Sweet, softly floral. White teas are air dried on bamboo racks. Just barely oxidized, like a wilted flower.

See picture to the left.



Oolong Tea
light to heavy
oxidation

Diverse flavors, from perfumy floral to honeyed fruit. Some oolongs take days to roll and oxidize.



Black Tea
full oxidation

Ranges from brisk and citrusy to malty and full bodied. Leaves are fully oxidized for complex flavor.

See picture to the left.



MOST OXIDIZED

Dark Tea
fully oxidized &
fermented

Dark teas, such as Pu-erh, are allowed to age and ferment, yielding smooth and mellow flavors with earthy notes.



GREEN TEA
PAN-FIRING

WHITE TEA
WITHERING



OXIDIZED
BLACK TEA



WHAT ABOUT HERBAL TEAS?

Herbal teas include spices, herbs and dried fruit – not *Camellia sinensis*. With the exception of Yerba Maté (a caffeinated herb unrelated to tea), they are caffeine-free. Rishi Tea specializes in artisanal herbal blends of vibrant ingredients and global culinary flair.

What is Green Tea?

IN 30 SECONDS...

- Unoxidized; leaf is green without reds or browns
- Application of heat locks in fresh, vegetal qualities
- Flavors influenced by firing technique: dry heat or steam heat

Green tea is **unoxidized tea**, meaning the leaves were not allowed to turn color. **The finished leaf is green without reds or browns.** The application of heat (called firing) soon after bringing the harvest in from the field sets green tea apart from other types. Using **heat locks in fresh, vegetal qualities**, similar to how blanching vegetables prevents browning.

Green teas use a variety of techniques, including steaming, pan-firing, baking, hot-air roasting and even sun-drying. The key flavor differences in green tea are influenced by the firing technique that was used, specifically **dry heat or steam heat.**

BEHIND THE SCENES: GREEN TEA FIRING

Once tea is fired, the enzymes that would cause oxidation (browning) are neutralized. The tea can be shaped however the tea maker wishes, while retaining its green character.

In China, green teas are usually fired with dry heat, which maintains a whole leaf structure. The tea often has an olive green color, and the infusion itself is clear. In Japan, teas are almost exclusively steamed. This process breaks down the leaf more, resulting in a finer, sometimes powdery looking tea.

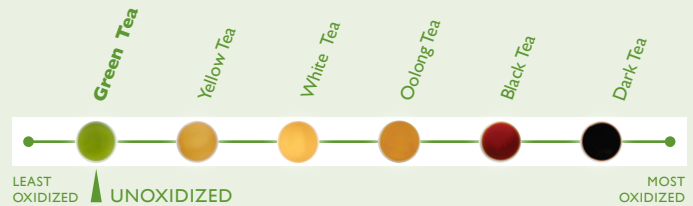


KEY ORIGINS
 ● China
 ● Japan

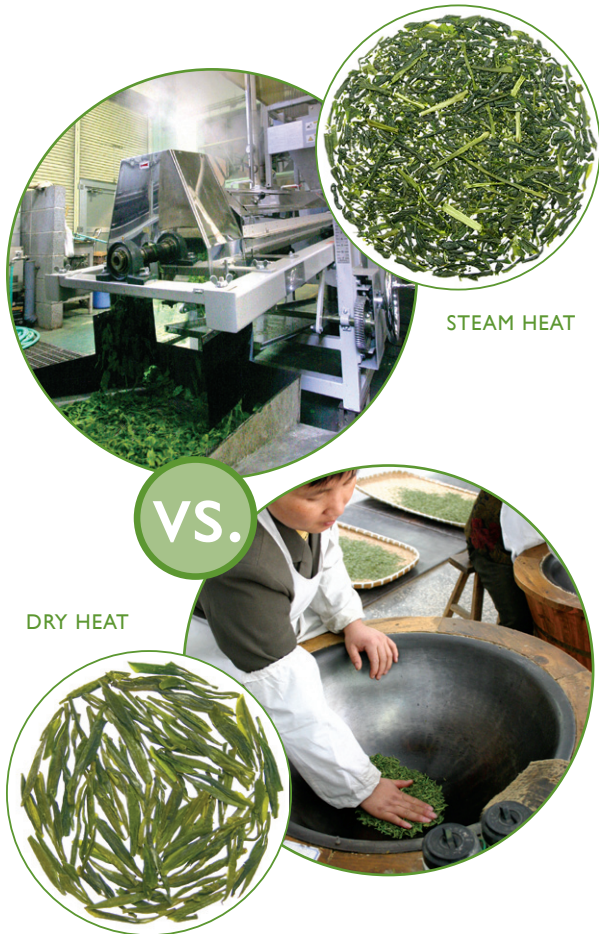
FLAVOR PROFILE Ranges smooth, nutty and vegetal to grassy and brisk

STEEPING NOTES Cooler water; shorter brew times to prevent astringent, bitter notes. Generally 170-180°F, 2-4 min

OXIDATION SCALE



Oxidation is the changing of harvested tea leaf from green to reddish-brown. It is caused by enzyme-rich juices in the tea coming into contact with oxygen. The level of oxidation is a key point of differentiation between the categories of tea.



STEAM HEAT

VS.

DRY HEAT

Steam Heat

Steaming is actually the oldest method for making green tea. However, it was Japan that evolved it into a highly specialized standard. In Japan, steaming is classified by how long and how intensely the leaves were steamed. Each producer has their own proprietary preference, changing time, temperature and intensity. These ranges reflect a general standard.

- Asamushi (light steam) – approx. 30 sec*
- Chumushi (mid-steam) – approx. 60 sec*
- Fukamushi (deep steam) – approx. 90 sec*

This system was originally developed to make sencha, Japan's classic, daily green tea.

SENCHA The small powdery pieces in Sencha (called fines) are a result of steaming and rolling the tea. These fines influence the flavor quality greatly. A proper Sencha should be opaque, with tender leaf fines suspended in the brew.

Dry Heat

Today, firing is the most commonly used technique for making green tea. The classic tool for this is a hot wok, referred to as pan-firing (pictured). The wok is heated from below, using wood, coal or electricity.

Green tea can also be roasted, using compressed air in rotating drums, or baked in conveyor ovens. It may also be dried on a patio in full sunlight after being fired, slowly removing moisture. Green teas are shaped at several points during heating, once the enzymes have been neutralized.

DRAGON WELL The tea maker presses the tea into a hot wok, sweeps the leaves around, and rests them in bamboo trays before re-firing. This is repeated several times, giving Dragon Well a distinctly toasty character.

What is White Tea?

IN 30 SECONDS...

- Lightly oxidized; leaf is green with points of pale brown or olive
- Harvested leaves are simply allowed to air dry
- Named for soft down on the leaf, which adds sweet flavor

White tea is a **lightly oxidized tea**; unlike all other teas, white teas are not rolled or shaped in any way. Unlike green teas, white teas are also not heated to neutralize the enzymes that cause oxidation (browning).

The **harvested leaves are simply allowed to air dry**, withering on bamboo trays in a warm room, for 2-3 days. This gently cures them in their sweet leaf juice, as moisture is evaporated.

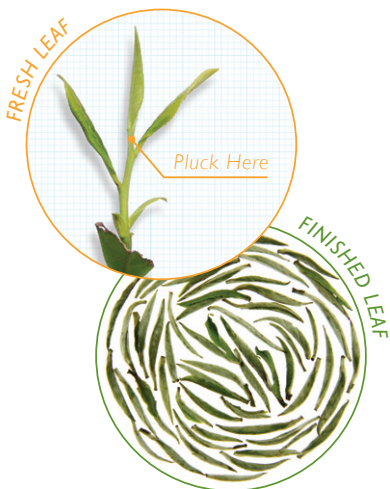
White teas are **named for the soft down on the leaf**. These fine hairs (trichomes) protect the tender shoots from hungry bugs and the brighter UV rays of early spring. They also impart a sweet flavor to the tea.

BEHIND THE SCENES: WHITE TEA STYLES

The best white teas are made from *Camellia sinensis* varieties that yield plump buds and leaves, hand-harvested over just a few weeks in early spring. The plants are full of energy during this time of new growth, offering leaves rich with flavor potential. Once harvested, they must be carefully handled to not rub off the soft, downy hairs. White tea is not shaped in any manner, so there are just two basic styles: Silver Needle and White Peony.

Silver Needle

Chinese - bai hao yin zhen



The premier style of white tea. This labor-intensive tea consists of only new leaf buds, not yet opened up. It takes around 4,500 of them to make just one pound of Silver Needle! The flavor is sublimely silky, sweet and floral-fruity.

Drying racks are used for both types of white tea (Silver Needle and White Peony). An entire room will be filled with these suspended trays, spaced evenly apart for proper airflow. Temperature and humidity are controlled so that the tea withers and evaporates moisture slowly.



White Peony

Chinese - bai mu dan



A “bud and leaf” style. The unopened bud, along with the two newest open leaves, is plucked as a single shoot attached to the stem. The appearance is classically described as a dried peony flower. Along with imparting a deeper, lush flavor, the inclusion of this extra leaf gives the tea a multi-color look, like dried autumn leaves.



KEY ORIGINS
● China

FLAVOR PROFILE Smooth, naturally sweet and mild, with a delicate floral-fruity character.

STEeping NOTES Very forgiving teas to brew. Ideal at 185°F, 3-5 min.

OXIDATION SCALE



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What is Oolong Tea?

IN 30 SECONDS...

- Partially oxidized; leaf ranges olive to reddish-brown
- Repeated rolling, resting and re-rolling builds complexity
- Sophisticated and highly artisanal with tremendous variety

Oolong is a **partially oxidized** tea; it falls in a wide range between white tea and black tea. A time-consuming production involving repeated **periods of rolling, resting and re-rolling builds complexity** in oolong not found in other categories. By comparison, white tea is not pressed or bruised to encourage these changes; its oxidation is minimal. Comparing oolong to black, the rolling and oxidation is more intense and thorough with black tea, not repeated or extended in time as with oolong production.

Oolong is **sophisticated and highly artisanal**, offering a flavor for every palate. Greener oolongs (ex: Four Seasons Spring) can be profoundly floral, reminiscent of lilac or honeysuckle. Darker oolongs (ex: Wuyi) are richly aromatic with ripe pit or tropical fruit and honeyed flavors.

BEHIND THE SCENES: OOLONG TEA CRAFTING

The point of differentiation for oolong is the labor-intensive process involving periods of rolling and oxidation. In between, the tea may be gently fired to slow down the oxidation, then rested before further rolling. A layering effect of flavor and aroma is created.

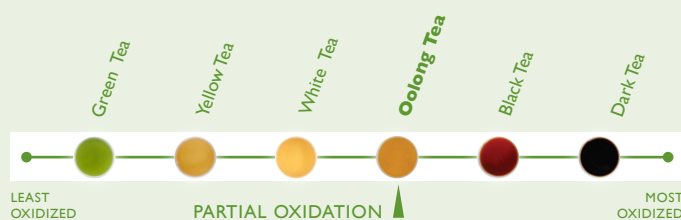
Techniques unique to oolong production include balling and compressing the leaves in cloth, tumbling in bamboo baskets and roasting over low charcoal.



FLAVOR PROFILE Succulent, smooth and fruity-floral, often with honey and pit-fruit notes

STEEPING NOTES Versatile and ideal for multiple infusions. Generally 195-205°F, 3-5 min

OXIDATION SCALE



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Artisan Techniques

Oolong tea makers utilize tools with highly specific needs. Large trays (fig. 1), for example, are used to dance bundles of leaf around to gently bruise them. Tumbling baskets (fig. 2) allow the tea to begin a slow, controlled oxidation. The tea rests for several hours, (fig. 3) covered to hold warmth, while deepening in color and aroma.

The tea being made in these photos is our Phoenix Dancong (final product below).



TREMENDOUS VARIETY

Each regional style of oolong is different; some use techniques and tools not found in other areas. This creates a very wide range of leaf shape, infusion color and flavor complexity.

FOUR SEASONS SPRING

is a ball-rolled oolong tea with a light, floral infusion.

WUYI is a strip-rolled oolong tea with an amber toasty infusion.



What is Black Tea?

IN 30 SECONDS...

- Fully oxidized; leaf is reddish brown
- Intensive rolling leads to deep flavor development
- Diverse category, due to wide range of origin geography

Black teas are **fully oxidized leaf**; enzymes that cause pigment change and develop deeper aroma and flavor in the tea have completely done their work, much like a minced apple that has been allowed to brown.

This oxidation is encouraged through **intensive rolling** of the leaf. Enzyme-rich juices are released, and as they interact with oxygen, they turn the tea reddish-brown color.

Black tea is a **diverse category, due to the wide range of origin geography** where it's grown. Climate, soil, and altitude are just a few aspects of black tea *terroir* (taste of place) that create strikingly different varieties.

BEHIND THE SCENES: TERROIR OF BLACK TEA

Originally a concept in the study of wine, *terroir* (French - 'teh-wahr') is a helpful term used in tea, coffee, chocolate, etc. It refers to the local "taste of place" - where something was grown and made. *Terroir* includes tea plant (*Camellia sinensis*) varieties, climate/altitude, and even local flavor preferences which influence the crafting technique.



Plant Variety

Black tea originated in coastal Fujian, China, using smaller-leaf tea plant varieties (*sinensis*) that were popular for green tea. Yunnan Province in the south uses larger-leaf varieties (*assamica*, pictured above); these are also found widely in India. Thus, a key *terroir* point for black tea is *Camellia sinensis, sinensis* vs *Camellia sinensis, assamica*.

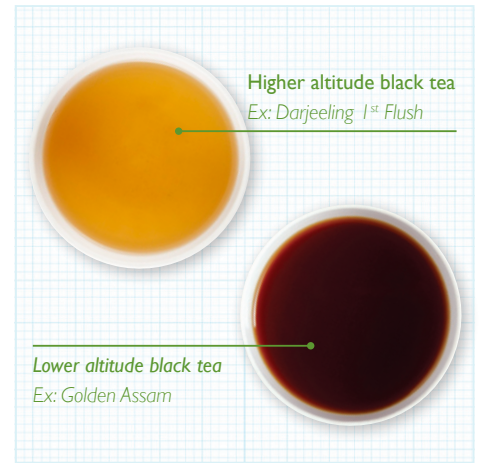
GIANT LEAVES *Assamica* type grows enormous leaves and buds. The open shape keeps the plant from overheating in hot climates.



Climate/Altitude

Black tea is produced anywhere from sea level to mountain foothills. The higher altitude teas grown in Darjeeling or Nepal offer distinctly honey-floral, bright qualities. By contrast, the lower altitude teas of Assam (India) or other areas in Southeast Asia produce full bodied, rich and malty teas.

STEEP SLOPES Cooler climate, distinct seasons and intense UV causes tea in the Himalayas (Darjeeling, Nepal) to grow slowly, concentrating flavor.



Local Flavor

This means what the market expects from a region, based on growers making teas that work with local nuances. Ex: Naturally bold Assam teas are sought after by those who enjoy tea paired with milk. Lighter bodied Himalayan teas, however, are not usually served with milk. Local flavor means Darjeeling and Assam are unique to the other.

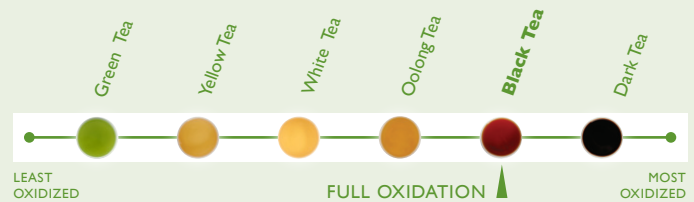
INFUSION COLORS The dramatic difference between these black teas is the result of pigments created during oxidation. This is influenced by plant variety and climate.



FLAVOR PROFILE Wide range; tangy and citrusy-floral to smooth and malty

STEEPING NOTES Generally close to boiling (212°F), 3-5 min. High altitude varieties perform better at 195°F

OXIDATION SCALE



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What is Pu-erh Tea?

IN 30 SECONDS...

- Fermented; leaf is deep brown or black
- Extended aging allows tea to naturally ripen and ferment
- Pu-erh is part of the Dark tea category; it originated in Pu-erh County, Yunnan Province

Pu-erh is a **fermented tea, with deep brown or black leaf**. It's produced through an **extended aging that allows the tea to naturally ripen and ferment**. Pu-erh is actually **part of a larger tea category, called Dark Tea**. Only very recently have other types of fermented tea been discovered; for decades, it was thought Pu-erh was the only one. In response, the global tea industry is gradually adopting the more general category family name 'Dark Tea.' Currently, the only dark tea offered by Rishi Tea is Pu-erh.

Pu-erh originated in Pu-erh County, Yunnan Province. Yunnan is located in the heart of Southeast Asia, the cradle of tea itself.

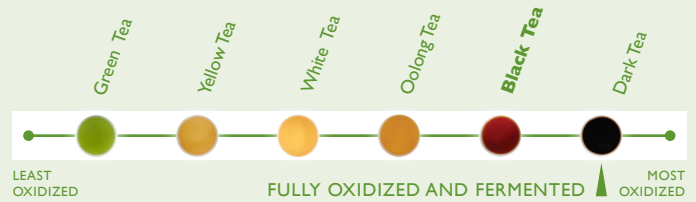


KEY ORIGINS
 • China (Yunnan Province)

FLAVOR PROFILE Smooth, little to no astringency, clean and earthy-cocoa flavors

STEEPING NOTES Very forgiving to brew. Boiling water (212F) best opens up the leaves; steep time 3-5 min, adjusting to taste

OXIDATION SCALE



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PU-ERH TEA FERMENTATION

There are two types of Pu-erh: Sheng ('green') and Shu ('ripe'). Both are made from a sun-dried green tea, which is fermented into finished tea. For sheng, aging takes several years of storing the tea in climate-controlled warehouses, similar to aging wine or cigars. For shu, the rich flavor that would take years to mature in warehouse is accelerated through carefully staged pile fermentation.

Sun-drying on Patios

The base tea for all Pu-erh is a sun-dried green tea (called 'saiqing'). The tea is spread on a patio in full sun to dry, developing ripe, floral-fruity flavors. As the tea cures, this sets the stage for fermentation.

After patio drying, sheng Pu-erh is stored for several years of aging. Shu Pu-erh, however, is ripened deeply in just a few months by rotating in climate-controlled piles. Wild yeasts and beneficial microbes transform the flavor and color dramatically. This aerobic ('oxygen-needing') fermentation is similar to making rich compost or traditionally fermented vegetables.

SHU PU-ERH has very brown leaf. Some especially fine grades can have flecks of gold from the delicate leaf buds (called 'tips').



TUO CHA: Both types of Pu-erh can either remain loose leaf or pressed into traditional shapes. Tuo Cha means "bowl-shaped tea," referring to the small concave shape.



YUNNAN'S ANCIENT TREES Pu-erh is produced from heirloom tea varieties unique to Yunnan. Tea plants can live to be quite old; if left to grow wild and unpruned, they become enormous trees. Many of the trees harvested for Pu-erh and other locally produced types are hundreds of years in age.

