How Matcha Is Grown and Ground

From the teas.co.uk wiki

> **How matcha grade is made, in summary:** Shading, harvest flush, tencha processing and stone grinding decide whether a powder ends up ceremonial or culinary. The grade gap is set in the field, not the mill.

Last reviewed by the teas.co.uk team in May 2026.

The grade gap between ceremonial and culinary matcha is set in the field, not at the mill. Ceremonial starts as the youngest, most shaded leaves of the spring harvest. Culinary uses older leaves, sometimes from second or third harvests, often with less rigorous shading. The processing differences are real but secondary, the leaf you start with decides the cup you finish with. This page covers the production side story.

It begins with shading

All matcha is shade grown. About 20-30 days before harvest, the tea field is covered with bamboo mats or modern shade cloth that blocks 70-90% of sunlight. The plant reacts to the stress by:

- Producing more chlorophyll (the leaves go vivid green)
- Producing more L theanine (the amino acid responsible for matcha's umami, sweetness, and its relaxed but alert feeling)
- Producing less catechins (the compounds responsible for bitterness)

Ceremonial grade fields are shaded longer (often 28-30 days) and more intensively (90% shade). Culinary grade fields may be shaded for less time (14-20 days) and less heavily (70% shade). The leaves from longer/heavier shading are sweeter, greener, more umami. Leaves from shorter/lighter shading are more bitter, more tannic, less green.

Then comes harvest timing

Japan harvests tea leaves in three or four cycles per year:

- **Ichibancha (first flush, late April early May).** Highest quality. The youngest, sweetest leaves. Almost all ceremonial grade matcha comes from ichibancha.

- **Nibancha (second flush, June).** Mature leaves, more tannic. Mid tier matcha, premium culinary or upper end commercial.
- **Sanbancha (third flush, July August).** Standard culinary grade. Leaves are coarser, more bitter, but still suitable for blending into milk or batter.
- **Yonbancha (fourth flush, September October).** Mostly used for commercial bottled drinks or bagged tea, rarely for high grade matcha.

The “first flush” premium isn't marketing fiction, the chemistry of the leaf really does change through the season. Older leaves have more cellulose and less amino acid, which is why a third flush culinary cup tastes thinner and harsher than a first flush ceremonial.

Tencha: the matcha specific processing step

After picking, the leaves destined for matcha are steamed (which stops oxidation and locks in the green colour), dried, and then run through a "tencha" process, the leaves are de veined and de stemmed, leaving only the leaf flesh. This is where matcha differs from gyokuro or sencha: those teas are steamed and dried but kept whole leaf. Matcha leaves are reduced to "tencha", flat, irregular flecks of pure leaf flesh, ready for grinding.

Ceremonial tencha is more rigorously sorted, only the youngest, most uniform pieces make the cut. Culinary tencha tolerates more stem fragments and slightly older leaf material, which is part of why the cup is a touch more astringent.

Stone grinding

The final step is grinding the tencha into a powder using granite stone mills. This is the slowest part of matcha production, a stone mill produces only 30-40g of matcha per hour. Faster mechanical milling generates heat that degrades the chlorophyll and aroma, so traditional stone grinding remains the standard for high grade matcha.

Ceremonial matcha is ground to 5-10 microns. Culinary matcha is ground to 10-20 microns. The finer particle size means ceremonial whisks more smoothly into water (less clumping, finer foam). For lattes and baking, the fineness matters less because milk and batter mask any texture issues.

Region matters

Three Japanese regions produce most premium matcha:

- **Uji (Kyoto Prefecture).** The historical home of matcha. The Uji name carries real prestige, the climate (cool, foggy mornings) and centuries of tradition produce some of the world's best matcha. Most top tier ceremonial is Uji grown.
- **Nishio (Aichi Prefecture).** Japan's largest matcha producer by volume. Excellent quality, more accessible price point. Many premium culinary and barista grade matchas come from Nishio.
- **Kagoshima (Kyushu).** Warmer climate, faster growing leaves. Mostly culinary and commercial grades. Reasonable value but rarely ceremonial class.

The "ceremonial" labelling problem

"Ceremonial grade" is not a legally protected term in Japan or the UK. Any seller can use the word. Reputable brands (Clearspring, Ippodo, Naoki, Marukyu Koyamaen) define ceremonial precisely; opportunistic sellers slap the word on culinary grade product to charge more. Test for authenticity: vivid neon green colour, sweet umami flavour, fine particle that whisks smoothly. If it looks olive green, tastes bitter, or clumps badly when whisked, you're holding mis labelled culinary regardless of what the tin says.

FAQ

Is ceremonial always better than culinary? Better tasting neat, yes. Better for lattes or baking, no, culinary is made specifically for those uses.

Can I tell the grade by looking? Mostly yes. Vivid neon green = ceremonial. Olive green or dusty = culinary.

What's between ceremonial and culinary? Premium culinary or barista grade. Sweeter than standard culinary, cheaper than true ceremonial. Designed for café style lattes.

Does culinary matcha have less L theanine? Slightly, yes. Shorter shading and older leaves produce less L theanine. The caffeine content is roughly equivalent.

Curator's note: the ceremonial/culinary distinction is real but it's a use case decision, not a class hierarchy. Buy ceremonial if you'll drink it neat. Buy premium culinary if you want lattes that taste decent. Buy standard culinary for baking and smoothies. Lee, teas.co.uk, Tunbridge Wells.

Those production differences are exactly why grade matters in the cup. For which grade to actually buy and how to use each, see Ceremonial vs Culinary Matcha. Both grades are in the matcha range or the full tea shop.

FROM THE CURATOR

teas · A whisked bowl of good matcha beats five tired sachets drunk in a hurry.

Matcha companion reading

- Matcha
- Matcha grades
- Ceremonial vs Culinary Matcha
- Green tea

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