Masterclass in Matcha
What is Matcha?
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Matcha is a special kind of green tea from Japan. The Japanese characters used for matcha are:

抹茶

which mean “ground tea” if we take them literally. And we do. Matcha is the type of green tea served in formal ceremonies in Japan.

It neither looks like nor tastes like any other kind of tea. It looks like hallucinogenic green cocoa, behaves like a perfectly pulled espresso, and tastes like baby green vegetables that might have been cooked by Ferran Adria: perhaps blended microgreens, straight-up chlorophyll, young bamboo, and raw sugar, served in a small cup.

It's used mainly in formal tea ceremonies in Japan, but we're doing our best to convince people that one needn't formally “study” tea to enjoy it. You can just . . . make a cup. You could make it on the run, at breakfast, with a cookie in the mid-afternoon, before (and after) a yoga class, before an especially important meeting, on a hike (really!), during a meditation session, or right before you get in your car after you've had a glass or two of wine.

It has many distinguishing features, but the top four are probably:

- Form of tea leaves. Unlike all other teas, including green teas, matcha is finely ground.
- No steeping. Matcha isn't steeped, it's “eaten.” You simply pour hot water over the powder, froth it (either with a special handheld bamboo whisk or an electric milk frother), and drink the thick tea.
- Off-the-charts health properties. Matcha is full of naturally occurring antioxidants and amino acids; roughly 20 times those of regular green tea.
- It's A LOT like really good wine. Terroir (conditions in which it's grown) is hugely important, it has a balanced acid structure, a very long finish, and it pairs exceptionally well with food.
World-Class Wine, World-Class Matcha
Drinking world-class matcha provides an epicurean experience along the lines of a truly great wine. Forget the health benefits of either for a moment, and let's just concentrate on taste.

World-class matcha — and yes, we do count all six grades of hyperpremium Breakaway Matcha in this category — really is like a world-class red like Domain Romanée-Conti in many respects: both are heady, have perfect balance, have umami in spades, have acidity that's racy and almost electrifying, have multilayered flavors and aromas on both front and mid palate, and have a long, smooth finish.

Lots of agricultural similarities, too: geography, soils, amount and intensity of sunlight, humidity, rain, harvest time, fertilizer . . . .

And then we have similarities of craft: harvest timing, method of picking, processing procedures, aging, blending ... ALL of these factors dramatically affect the final product, be it matcha or wine.

That said, it's also important to note that, just as there is no shortage of truly bad wine in the world, the markets are full of very, very poor quality matcha. Much of it starts off bad (by poor/cost-cutting agricultural techniques, and by machine harvesting new growth, stems and all) and winds up much worse: poor storage, excess supply, and a "race to the bottom" in price all add up to matcha that is either sugared (meaning, sugar has been added to it to make it palatable), badly oxidized (resulting in a hay-like color and aroma), or simply lifeless and dead, bitter, dusty, and forgotten.

It is vile stuff; most unfortunately, this dead, cheap matcha is the only experience with matcha that many people have. If you've tried matcha and didn't like it, join the club. That is what you had, and it's ubiquitous.
Bad matcha is actually much worse than Two-Buck Chuck; it’s more like pouring a glass of “cooking wine.” Which is what it is, in essence: most matcha is meant for culinary purposes. It may still have enough of a “matcha” taste to taste ok as green tea ice cream, as cookies and cakes and all kinds of confections. The fats and sugars in those confections will often mask off-flavors, and the result will be quasi-acceptable.

Great matcha is very, very different. It is meant to be drank, like wine, not used as a cooking ingredient. (We doubt there is anyone on earth who dumps half a bottle of Echezeaux into a pasta sauce.) All of the amino acids, umami, and acid structure of great matcha remain intact when brewed into a nice cup, but are destroyed/rendered undetectable if fat, sugar, and heat enter the picture.

So: think of great matcha as great wine. And think of culinary matcha as cooking wine. The parallels are pretty much exact.

at the same time ... antiwine?

But in another important sense, great matcha is the antiwine: instead of the soporific effects associate with alcohol, matcha provides a calmly stimulating effect, perfect for sipping throughout the day and becoming supremely productive.
World-Class Wine, World-Class Matcha

ten times cheaper than a Napa Cab?

One more difference, while we’re pointing out differences: cost.

Premiere Grand Cru Burgundies:

<table>
<thead>
<tr>
<th>“Cult” Napa wines:</th>
<th>1 glass</th>
<th>$200</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent Napa Cabernets</td>
<td>1 glass</td>
<td>$75</td>
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<tr>
<td>Mediocre Napa Cabernets</td>
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</tr>
<tr>
<td>Breakaway Matcha Blend 100</td>
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The most delicious, rare, and healthful drink on the planet costs less than a glass of subpar wine. Great news for hyper-premium matcha drinkers!
The Health Benefits of Matcha
The Health Benefits of Matcha

It’s a unique challenge to present something as both 1) an epicurean experience unlike any other, and 2) a superfood that is quite possibly the healthiest substance one can put into one’s body, bar none. To our knowledge, no food or beverage can make both claims. Great wines are some of life’s finest pleasures, but anything more than small quantities can have adverse effects on health (not to mention make you drunk or bankrupt you).

Superfoods, including pomegranate, gojiberries, wild blueberries, acai berries, mackerel, sardines, fresh turmeric, ginger, cacao, avocado, dark winter greens, walnuts, pumpkin, and regular green tea — among others that make up the bulk of the bulk of the breakaway diet — are both healthful and delicious, but, even in the hands of very skilled cooks, they don’t really qualify as “transcendental” epicurean experiences in the way that, say, a glass of Romanée Conti does.

Drinking highest-quality artisanal matcha is like drinking Romanée Conti AND getting at least 10x the health benefits of the superfoods listed above. This has been a true epiphany for me: it’s as if my doctor told me that the greatest gift I could give my body and brain is have a few glasses of DRC with every meal, AND that it would result in better focus/concentration, weight loss, fresher breath, bolstered immunity, and an elevated mood that sure feels like what the Buddhists call satori, a kind of calm euphoria. Where do I sign?!
The Health Benefits of Matcha

some basic health facts about matcha:

• It’s got boatloads of antioxidants, which act as anti-inflammatory and antiviral agents in the body. You can actually measure the antioxidant contents of foods, with something called ORAC (oxygen radical absorbance capacity) units. Here are some ORAC numbers for common superfoods: gojibberries 253, dark chocolate 227, pomegranate 105, wild blueberries 93, acai berries 60, broccoli 31. And matcha? It clocks in at an astounding 1440; more than all of those superfoods COMBINED.

• You can break down the term “antioxidants” into lots of components, but one key antioxidant is actually a flavanoid/catechin called EGCG (epigallocatechin gallate), and matcha is crazy full of EGCGs. It has roughly 140x the EGCGs of regular green tea, for the simple reason that matcha is consumed whole. It is not steeped or, worse, extracted (beware of health claims for extracted green tea — much of it is bogus). The soluble and insoluble fiber in matcha work in synergy, something that can't happen in tea that is steeped. It’s this synergistic effect that is responsible for its off-the-charts EGCG count. Wikipedia lists a bunch of studies that have shown that EGCG in quantity can be beneficial in treating brain, prostate, cervical, and other cancers. Other studies have posited that matcha helps stave off dementia, promotes fat burning, aids digestion, improves oral hygiene, and helps bolster immunity.

• Matcha drinkers have reported (to me, and to others) clearer and quicker thinking, improved memory for things like names and numbers, increased alertness and awareness, elevated moods, “calm euphoria,” and improved concentrative abilities for studying, working, or driving. These claims have definitely rung true in my own case.
The Health Benefits of Matcha

other random and widely reported observations about matcha and health:

• Matcha has exceedingly high levels of chlorophyll (thanks to the shading process), which is what gives it its hallucinogenic green color. Health gurus claim that chlorophyll is among the most powerful detoxifiers of blood, and a powerful ally in creating ideal blood alkalinity.

• There appears to be a direct connection between antioxidant activity and hypoglycemic activity. The natural sugars (polysaccharides) in matcha help to stabilize blood sugar levels, and to protect against insulin spikes thus stabilizing blood sugar levels. Polysaccharides from green tea in concentrated form are used in the treatment of diabetes in China.
How Can You Tell Good Matcha from Bad Matcha?
It's very easy to tell good matcha from bad matcha ONCE THE PACKAGE IS OPEN, but it's impossible to tell just by looking at packaging, either online or in person. Packaging can be deceptive: always buy from a trusted source!

Once the package is open, you have a gigantic clue: color. Quality matcha should be bright, bright, BRIGHT green. Electric green. Bad matcha will be a dull green; some are even army green, others are downright yellowish. These colors are bad signs indeed: they mean that 1) the matcha is well past its prime, 2) the matcha contains stems and branches, or 3) mostly like both 1 and 2. So color is the biggest immediate factor in assessing the quality of matcha.

Next: get up close to it, and take a deep, slow inhale through the nose. What does the aroma tell you? Does it smell fresh and inviting and vegetal, almost like freshly blended baby green vegetables? If so, you've got some good, sweet matcha. If it smells a little stale, a little dusty, a bit like old hay . . . that's not so good.

Taste. This one is easy. After you've whisked your cup of matcha (here's a video on how to prepare it), does it taste good, or does it make you feel like spitting it out? Does it taste bitter or sweet (our neither)? Inferior matcha tastes unpleasantly bitter (there are those who would say that a good matcha should be pleasantly bitter, but here at Breakaway Matcha we are not among them). We prefer it to taste sweet, which is a result of the complexity of the amino acids in the tea. We certainly don’t add sugar or honey or agave or any sweetness to it; it should be naturally sweet. It should also have a great deal of umami (a brothy meatiness), which is also an emergent property of the high amino acid content of great matcha.

Finish. It should have a long, pleasant finish that lasts a good 30 seconds, if not longer. Young vegetal notes should just sing on. This is the mark of a truly excellent matcha.
Organic Versus Conventional Matcha
In the world of food, organically grown produce is often (though by no means always) superior in color, taste, and nutrition. Not so with matcha, and here’s why.

For us, it’s all about taste. While organic matcha farming in Japan has made great strides recently, and some of it is now quite tasty, organic matcha as a rule produces a weaker amino acids/umami profile compared to its conventionally grown brethren. Why would this be?

It has to do with how tencha (the tea leaves used to make matcha) is grown; that is to say, tencha spends the last, and most important, part of its life in shade so that the amino acid content of the plant can develop and remain intact when harvested. If it gets sunlight, those coveted amino acids that we’re after get converted, via photosynthesis, into catechins, a process that changes the taste from sweet and brothy to bitter and unpleasant.

The dilemma thus becomes: if a plant can’t get energy to grow from sunlight, from where does it get its energy? In matcha’s case, it gets its energy from fertilizers. It NEEDS this added energy, since it’s not getting it from sunlight. And the bitter truth (so to speak) is that organic tea fields using organic fertilizers can’t, at least by today’s technologies and standards, give it enough energy to grow with maximum amino acid structure. It just doesn’t deliver enough nitrogen for the plant to develop the complex amino acids that give great matcha its unique and umami-driven taste profile.

That said, our farmers are hardly dumping industrial-strength fertilizers into their fields. They use very high-quality natural fertilizers (mostly fish meal and pure nitrogen), but they are not certified organic. The plant NEEDS this added energy, since it’s not getting it from sunlight.

So this is why purely organic matcha grown only with organic fertilizers is actually inferior to conventionally grown matcha: purely organic fertilizers simply don’t have enough stored energy to create these ethereal, umami-packed, new-growth leaves in the absence of sunlight.
Matcha and Caffeine
One of the most common questions we get is, “how much caffeine does matcha have?”

**Matcha** contains roughly 25mg of caffeine, which is approximately one-third the caffeine of a cup of brewed coffee. This is by most standards a very small amount of caffeine; it is easily tolerated by many people for whom coffee makes them jittery because all of the other components that make up matcha in effect slow down the release of caffeine into the body. It typically takes a good three to six hours for this minimal amount of caffeine to be absorbed into the bloodstream, and yet the wakefulness effects are apparent almost immediately upon drinking it.

By definition, all "real" teas — that is, teas that come from the plant camellia sinensis, including all black, green, and oolong teas — contain some caffeine. It’s built into the molecular structure of the plant.

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Matcha is different from coffee, and from other teas, in one important aspect: the caffeine in matcha works in a synergistic manner with all the other great stuff that matcha contains, including hefty quantities of phytonutrients, antioxidants, and amino acids.

This combination of caffeine + phytonutrients + antioxidants + amino acids produces an unusual effect on matcha drinkers: an uncanny ability to focus and be productive over an extended period of a few hours (for some, the effect can last up to six hours). The effect is quite fascinating, and extremely pleasant for most people because there is none of the jitteriness associated with caffeine from coffee.
Matcha and Caffeine

Because the caffeine molecules in matcha bind to larger and more stable molecules (especially catechins), the caffeine is, essentially, released over time, instead of all at once, as it is with espresso or brewed coffee, into the bloodstream. In contrast to coffee, this timed-release mechanism tends to inhibit any sudden insulin increases, so there is no “crash” associated with quick drops in blood sugar that so many coffee drinkers feel an hour or so after drinking a cup. Nor does matcha stimulate the production of cortisol, the stress hormone, as coffee can.

Our favorite description of the effects of caffeine in matcha comes from Dana Velden, a writer at The Kitchn.com. “The caffeine hit of an espresso can be a bit like having an express train screaming through the middle of your body: a deep, powerful, jittery roar. I find the effects of matcha to be just as stimulating but in a more delicate, refined way, as if a thousand butterflies have descended on my body, beating their wings until I’m lifted, gently but resolutely, a few inches off the ground. (Seriously.)"
The Story of Matcha
The Story of Matcha

Matcha has been around a long time — since the late 12th century in Japan, a good 300 years before the printing press was invented, and centuries before Copernicus, Michelangelo, and da Vinci were born. But its origins go back even further, to 8th-century China, when it was thought of more as a an art form, akin to poetry, with which one amused oneself, than as a daily beverage.

Chinese zen (chan) monks were the ones who discovered the joys of pulverizing green tea leaves (which had first been steamed, then dried, then packed into tight molds for easy portability). They would prepare their tea by breaking off a chunk, mashing it with a mortar and pestle until they got a fine powder, and then whisking the tea powder and hot water together in a wide, shallow bowl. Preparation and consumption of this tea played an important part in the lives of lots of early Zen Buddhists, and, eventually, elaborate rituals were formed around this idiosyncratic green tea.

An influential Japanese Buddhist monk (in the Tendai sect) by the name of Eisai Myoan, on a trip to China in the late 1180s, became rather smitten with two important Chinese practices: Zen Buddhism and matcha. He came back to Japan pretty fired up about both, and devoted the rest of his life to writing about and teaching both zen and matcha.

Matcha fell from favor among Chinese intellectuals — it’s never been quite clear why — and was slowly replaced by other forms of Chinese tea (especially pu-ehr), but its popularity only grew in Japan, thanks initially to Eisai’s incessant efforts (his two-volume Kissa Yojouki (“Book of Tea and Mulberries” has been a classic ever since).

It’s rare that a single non-political individual could influence the culture of a civilization to the extent that Eisai did, but he really hit one out of the park as a result of that trip to China: zen buddhism and matcha have been integral, and complementary, to Japanese culture and history for almost a millennium.
Zen monasteries in Japan took to matcha quickly. They favored matcha for a few reasons: 1) it kept them awake and alert during long periods of meditation, and 2) they knew it had valuable medicinal properties that we now have a very scientific handle on (see The Health Benefits of Matcha).

Matcha soon became appreciated by the higher strata in Japan's caste-oriented early society, especially among the samurai class, and it grew in popularity through the end of the 16th century. It was during this time that tea growers, mostly in Uji, Kyoto, really began to understand the best cultivation techniques. With time, they kept learning about and producing better matcha.

Consuming and appreciating matcha, in addition to simultaneous pursuit of Japan's other traditional arts like poetry, flower arrangement, and painting, gave one a kind of cultural clout; fluency in matcha was considered a good way to “rise above one’s station” in life. People aspired to matcha. Feudal politicos/bosses (known as daimyo) retained tea masters on their payrolls for the prestige they brought, and collected tea paraphernalia like ceramics and utensils, which were considered prized cultural possessions.

Somehow along the way, then, the use and enjoyment of matcha in China waned, but it was transmitted to Japan, where it developed independently, at first in zen monasteries, and then on to the general public in the form of chanoyu, or the tea ceremony. Tea rules emerged from the many rules that tightly govern daily life in zen temple.

By the 16th century, professional tea masters, such as Sen No Rikyu, developed the tea ceremony into a highly choreographed ritual that makes use of many art forms, including ceramics, painting, lacquerware, culinary arts, architecture and design, calligraphy, flower arrangement, and even gardening. It’s hard to think of another pursuit that draws on so many disparate artistic pursuits.
The Story of Matcha

The enjoyment of matcha was at first practiced exclusively by men (monks and influential leaders, mostly), but, over time, women became increasingly involved. Today, women far outnumber number men in the pursuit of chanoyu.

The good news is that, today, the popularity of matcha has never been greater or more widespread, far more so than it was during the period of its heyday in the Edo Period and prior to that.

Our belief is that, once matcha becomes increasingly disconnected to chanoyu and is enjoyed on its own — perhaps with a small, personal ceremony of one’s own — its popularity will skyrocket.
How to Make Matcha Breakaway Style
Matcha is, of course, traditionally made in a wide, shallow bowl. Matcha is sifted into the bowl, a small amount of hot water is ladled in, and this mixture is then whisked by hand, using a traditional bamboo whisk. In the hands of very skilled people who use excellent matcha, this method can produce a fine crema.

Making matcha the traditional way is a classic case of form driving function. The bowl MUST be shaped the way it is so that the hand whisk can be accommodated. You could never use an electric whisk, for example, in a wide shallow matcha bowl – you’d end up with a very green shirt! Likewise, you could never use the bamboo hand whisk in a creamer or a mug – you NEED that big shallow surface for it to work.
While there is undeniably beauty in making matcha the traditional way, I found myself wanting to sip highest-quality matcha from smaller cups; it seemed a little more practical for everyday use, and there is special pleasure to be had from smaller, lighter, more ethereal ceramics. But some kind of vessel was needed in which to make/froth the matcha if we use a hand-held electric frother (intended for making foamed milk for Italian-style coffee drinks, but it makes truly fabulous matcha). We found that a small creamer fit this bill perfectly, especially if it was slightly wider at the bottom and tapered upward. We couldn’t find the perfectly shaped creamer for matcha, so we asked the great ceramicist Aletha Soule to make us one.

Making matcha in the breakaway style is fun, easy, and quick, and it produces a superior crema. It promotes daily drinking, and it relieves the pressures of “doing it right” and the many, many rules associated with the tea ceremony/the traditional way.

The breakaway approach to matcha aims to upend all of that. We feel it is a delicious, epicurean, supremely healthy product that should be enjoyed daily, in a casual manner along the lines of how Italians enjoy espresso. In the same way that breakaway cooking breaks free from traditional culinary constraints, breakaway matcha aims to democratize matcha and to make it accessible to everyone who wishes to have an epicurean experience along the lines of a fine wine with off-the-charts health properties.

The culture of matcha is incredibly rich, has a venerable history that is simply awesome in its beauty and relevance. But it can be, indeed must be, brought up to contemporary times, to be more suited to the way people live and work today.
How to Store Matcha
How to Store Matcha

Matcha is very delicate stuff. It doesn't like heat, it doesn't like air, and it doesn't like light. Once it is ground, the clock on its shelf life — about a year, under ideal conditions — starts ticking.

And that’s for unopened matcha green tea; once it’s opened, it really should be used up within six to eight weeks — or, if we push it, not longer than 12 weeks — for optimum freshness, color, and taste. It will still be fine after that, especially if it's been refrigerated, but there's really no reason to "save it for a special occasion" — it's much better to enjoy it in its optimum state. Stale, dead matcha is no fun — drink it when it's hypergreen and vibrant.

Matcha should either be stored in the freezer, if you plan on NOT opening it for a while, or in the fridge, once it’s opened. In both cases, use a container that’s as air-tight and light-tight as possible. Our tins were designed with this purpose in mind. Close the tin quickly once you’re done and return it to the fridge.

It’s really important to store it properly: it’s absolutely key to fostering the tea’s taste, color, umami content, frothability, and health properties.
Liquid Meditation
It’s hard to imagine that a beverage, or anything else for that matter, would actually help anyone to meditate, but the entire history of matcha centers around staying awake during meditation (see "The Story of Matcha")

Meditation can definitely help us to become more wakeful/mindful during the day; it’s a great way to train yourself how to experience the present moment, and how to bring yourself back whenever you find yourself (quite involuntarily) thinking excessively about the past or about the future. The only thing that gets you there is relentless practice, like everything else. This is especially true with cooking; the more you do it, the more enjoyable it becomes, and — usually — the tastier it gets.

Then again, in cooking, there are certain “tricks” one can employ to more or less instantly and dramatically improve your food. Using great salt judiciously is a wonderful and proven way improve your cooking, as is the addition of copious quantities of fresh herbs. You could go to culinary school and learn a lot more about cooking, but a two-minute primer on good salt and herbs will launch you into the upper tiers of good cooks the moment you try it.

In a similar sense, many of the benefits of meditation take many years to manifest, but, there are similar “tricks” one can use during meditation that can really help. If you’ve come to meditation for all of the usual reasons:

- to reduce stress, anxiety, muscle tension, or high blood pressure
- to relieve various types of pain, physical and otherwise
- to increase peace of mind and overall happiness
- to improve our concentrative abilities
then why not employ whatever works? Drinking a thick cup of matcha before a meditation (or yoga) session really does “jumpstart” a session like nothing else. You’re more at ease, less jittery, can concentrate better, and can just be “in the moment” without a lot of mental distraction.

At least part of the explanation of matcha’s role in this interesting state of mind is the very high concentration of a certain amino acid called L-theanine, which has been shown to reduce physiological and psychological stresses, in matcha. L-theanine also improves cognition and mood in a synergistic manner with caffeine, as we talked about in matcha and caffeine, and promotes alpha wave production in the brain. Which is pretty much what meditation does. This is why we sometimes refer to matcha as “liquid meditation.”

Try a cup sometime before a session. We’re betting you’ll really like it. Try it before a yoga session too — it seems to make the body relax in all the right ways.
How Matcha is Produced
How Matcha is Produced

Matcha comes from the same plant that all true teas come from: camellia sinensis, the leaves of which can be made into green tea (unfermented tea; it’s simply steamed and dried), into oolong tea (the leaves partially ferment), and into black tea (fully fermented). Matcha is a true green tea, but its growth style, harvest, and production style are markedly different from those of other green teas, let alone from those of oolong and black teas.

That said, camellia sinensis does have varietals, and some of them, it turns out, produce better matcha than others. The highest-grade matcha come almost invariably from one of three Japanese varietals (they’re called samidori, okumidori, and yabukita in Japanese).

These three varietals of the noble tea plant have been explored, selected for, and grown in Japan for more than 900 years. They are keenly understood by many Japanese growers/farmers, and in many cases have been cultivated by family lineages for many hundreds of years. Suffice it to say that these families really know how to cultivate these three varietals to obtain superior matcha.

Truly superior matcha must have five key characteristics:

- brilliant color intensity
- superior umami
- excellent terroir (which by definition means a rare tea)
- dreamy frothability, and
- a long, smooth finish that contains crema to the very last drop.
How Matcha is Produced

The combination of those five traits is a very rare occurrence; most matcha has a dull color, bitterness instead of umami, is mass-produced, forms weak crema, if it forms it at all, and has little to no finish.

The main area of matcha cultivation in Japan is a place called Uji, which sits on the southeast border of the city of Kyoto, the homeland of almost all traditional Japanese arts and aesthetic pursuits. Many matcha connoisseurs (yes, they really do exist in Japan) consider Uji to have the ultimate terroir for matcha cultivation, and many of Japan’s most distinguished (and most expensive) matcha come from Uji. Our Breakaway Blends 94 and 97 both come from Uji (specifically, the 97 comes from Ogura, Uji, and the 94 is from Tawara, Uji).

The other distinguished matcha appellation is in Aichi Prefecture, in a town called Nishio, a historic tea-cultivating region dating back to the late Heian Period (12th century). Nishio has what many consider to be ideal terroir for matcha: the climate is mild, it’s remote, its soils are fertile, and it’s elevated (roughly 600 meters), all of which add up to wildly bright color, an abundance of umami, and maximum nutrients.

Many teas get harvested several times throughout the year; a second harvest is sometimes referred to in the literature as a “second flush.” Many matcha producers create second and even third flushes.

The very best matcha, in contrast, gets harvested—always by hand—just once per year, typically in May. Roughly six weeks before harvest, that is to say sometime in late March or early April, the tea fields, which are surrounded by scaffolding of sorts, are covered from the top. Traditionally, straw was employed for this, but nowadays it’s typically black vinyl sheets. The idea is to slowly and gradually decrease the amount of sunlight, and hence photosynthesis, by covering up more and more of the light allowed to shine on the plants. The highest grade matcha is grown in near-darkness by the time harvest rolls around.
How Matcha is Produced

As a result of this decreased light, the tea leaves begin to crank out increasing amounts of both chlorophyll and amino acids; the newest growth is very, very delicate, with ever-softer and ever-thinner buds. This increased amino acid content serves to concentrate specific molecules, most of which are glutamates, which give the match its intense umami flavor profile. Great matcha is sweet and mouth-watery, with no traces of bitterness, because of this high amino acid content.

Only the smallest, youngest/greenest parts of the plant—the two leaves at the tip of each new shoot—are picked. They are then steamed to preserve the color and nutrients, and to stop the enzymatic action within the leaves, then thoroughly dried in large cages equipped with heated blowers.

Once dry, they are sorted for grade (with the youngest, greenest, most tender leaves earning the highest marks). Then the laborious and immensely time-consuming task of destemming and deveining happens. The leaves that make it through this rigorous process are called tencha, and, of course, the quality of tenchavaries widely. Tencha is then kept refrigerated until it’s ready to be ground, using large granite wheels that rotate very slowly and gently to avoid scorching, into a very fine powder known as matcha. It takes more than an hour to grind 30 grams, which is one of the reasons hand-milled matcha costs so much (labor costs are quite high in Japan). It is this grinding process from which matcha—抹茶, literally, “ground tea”—derives its name.

The ground tea is then vacuum packed and refrigerated at low temperatures until it ships.
Thick or Thin Matcha?
Why No in Between?
The most cursory inquiry into the literature on matcha will bring up a reference to the basic two traditional Japanese styles of matcha preparation: usucha ("thin tea," literally translated) and koicha ("thick tea").

The basic idea is that higher grades of matcha — by which we mean more vibrant color, loads of natural sweetness, maximum umami, and very long finish — should be used to make thicker/denser/stronger tea, and that lesser grades are good only for thinner/weaker tea. Another distinction made by tea teachers is that usucha is typically made from the leaves of tea bushes that are less than 30 years old, and koicha is made from the first harvest of plants that are a minimum of 30 years old.

Preparation methods for koicha and usucha are very different. For koicha, as much as four grams (two teaspoons) of matcha are used, roughly four times the typical one-gram serving for usucha.

Water quantity differs, too: koicha uses far less water (perhaps a single ounce) than usucha, which can use three or four ounces of water. As one can imagine, koicha preparation requires a very high quality matcha, or it’s going to taste incredibly unpleasant. Using culinary matcha, or even many of the "ceremonial" grades available commercially, in four times the normal strength AND using less than half the normal hot water quantity will result in a treacly, mud-like sludge.

Preparation of the two styles is couldn’t be more different. For usucha, one typically uses the traditional Japanese bamboo whisk (though breakaway souls love to experiment with electric whisks/milk frothers) to create a nice head of crema, which beautifully shows off the brilliant color of the tea. Koicha, in stark contrast, doesn’t have any crema at all. One “massages” the large quantity of tea with the bamboo whisk and a few drops of hot water, then incorporates a tiny bit more water, perhaps a tablespoon at most, which reheats the tea and makes it more viscous. The final viscosity of koicha is something like that of warm honey or melted chocolate. The viscosity of usucha is something like an espresso or perhaps a macchiato.
Here at **Breakaway Matcha** we find this entire koicha/usucha fixation confusing. Why does it have to be one or the other? There can be, should be, and are GRADES of thickness/viscosity. Koicha is edgy and challenging; it’s very, very intense in a very good way when made with worldclass matcha, and intensely unpleasant when made with subpar matcha. One has to have a rather wide-open mind to drink tea in this fashion. It’s hard to imagine drinking it regularly, during the workday kind of thing. Not likely to catch fire with the masses! There are probably a few hundred people worldwide who drink koicha on a daily basis, maybe as few as a few dozen.

We find that the sweet spot of matcha is something in between. We especially love making thick cups of Breakaway Blends **97** and **100** in our creamers (designed in house, and handmade locally in Sonoma County), and then pouring them into our cups.

So the real "sweet spot" for matcha is somewhere in between thick and thin. But if a thicker cup of matcha, like the one shown above, can’t be made from the matcha you’re drinking, because the result is unpleasantly bitter and even downright nasty, you’re drinking the wrong matcha. Add some fat and sugar to this matcha and bake with it, make a smoothie or latte out of it! But don’t drink it straight up.

It’s not like we must adhere to this Manichean choice of thick versus thin. None of it matters if you use good matcha. Make your cup of matcha with a single gram of matcha, or, if you really want to let your hair down, use two. If you happen to like your tea on the stronger side, use a little less water. If you’d rather something less intense, just add hot water! And you’ll wind up with your personalized, perfect cup of matcha. The key is to never bother using a lesser grade of matcha, and none of these koicha/usucha distinctions will matter.
A More Detailed Video on How to Make Matcha, Breakaway Style
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