MATCHA: RISHOUEN TEA EXPERIENCE

Info: http://www.rishouentea.com/en/

1) Do we need a specific kind of tea leaves or tea plants to produce matcha?

Yes, Matcha is green tea powder, but not all green tea powders are Matcha.

The raw material used to make Matcha is called Tencha.

Tencha is a tea leaf that has been grown in a Tencha field especially for Matcha production, covered from the sun before harvest - from about 20 days to sometimes up to 60 days before harvest depending on the producer and on the method of covering used – so that it can develop a mellow flavor rich in Umami. After harvest from the Tencha field, the leaves are refined as quickly as possible to stop oxidization and maintain their fresh state: they are steamed and dried. The leaves are flown into the air to cool them off after steaming, then laid flat to dry on automatic rolling carpets that bring them in and out of the drying oven.

Most importantly, Tencha is not rolled, this is where its production process differs most from Gyokuro, which is shaded before harvest and also steamed after harvest, like Tencha leaves, but is rolled in needle pine shape during the refining process.

High quality Matcha is produced by using Tencha leaves that have been de stemmed and de-veined during the refining process, as the rough fibers such as stems and veins are responsible for bitter flavors. Lower quality Tencha produced by people who value quantity over quality might not be destemmed and deveined during the refining process in order to increase the volume of powder obtained after grinding. This will result in a lower quality, more bitter flavor in the end product.

2) How do you process matcha?

In short, Matcha is made from Tencha leaves grown especially for Matcha production in a Tencha field, steamed and dried after harvest, not rolled, destemmed and deveined for the high quality Matcha, and then ground into powder.

However, not all Matcha are created equal, meaning that even in Japan, 'real' Matcha made from Tencha do not contain the same quality of Tencha. In the field, the tea leaves are covered before harvest, but the management of fertilizer (timing and quantity), covering period & method, harvest method and period all have an impact on the quality of the finished Tencha raw material obtained before grinding.

The most highly regarded Matcha result from the grinding in a stone mill of hand picked spring harvest Tencha that has been covered for an extensive period, and covered in a non direct way, maybe under a two layer cover to prevent most of the sun light from reaching the leaves sometimes up to more than 50 days before harvest for the most prestigious fields.

The end result in a Matcha depends on a myriad of details:

The factors to take into account here are:
- Location & health of the tea trees (is the field located in a good Tencha growing location? Does it benefit from a rich soil? Are the trees healthy?)

- Fertilizers (timing and quality of the fertilizers – these are critical to obtain a good Umami flavor)

- Length of covering and covering method (only 20 days? Up to almost 2 months? direct cover? Undirect cover?)

- harvest period. (1rst flush spring harvest? Second harvest? Autumn harvest?)

- harvesting method (hand picking? Machine picking?)

- blending (which Tencha varieties – cultivars - are comprised into the blend to be pulverized into Matcha? – each cultivar has its own properties, and the tea masters chose which cultivar to pick for one Matcha in particular, and pair it with other cultivars that will enrich, enhance and complete the characteristics of the main cultivar to create a balanced Matcha. A Matcha that does not contain a blend of several Tencha has a good chance of having a flat flavor lacking depth.)

- grounding method (stone mill? Airflow?)

- storage method (grinding timing? vacuum sealed? Away from light and heat, strong smelling products?)

Harvest period:

There are up to 4 harvests in Japan. The spring harvest is the most prestigious and contains the most nutrients and the highest concentration of amino acids responsible for the Umami mellow flavor. In Japanese teas, what is most sought after is the Umami, and this Umami is most present in the first harvest. --- Umami means delicious taste in Japanese, and has been labeled as the 5th basic taste along with the other 4 basic tastes: sweetness, sourness, bitterness, saltiness.

Tencha harvested during the spring harvest will yield more elegant, balanced, smooth, Umami rich Matcha than Tencha harvested in later harvests, which will contain more Catechin and less L-Theanine than spring harvest Tencha. Catechin is responsible for the bitter flavor in teas, while L-Theanine is the amino acid responsible for the mellow, smooth Umami flavor.

Covering method:

Each covering method (direct cover, undirect cover, one layer cover, two layer cover) has its own particularities.

In terms of covering, the longer the tea bushes are covered, the thinner, tender, Amino acid rich (L Theanine) the leaves will get, resulting in a smooth, frothy, creamy, Umami rich and sweet Matcha with balanced flavors, no astringency and no hint of displeasing flavors.

A direct cover is less work so it is easier to manage than a non direct cover. However, a direct cover restricts the length of covering period. It is the same as having a cloth permanently rubbing against your skin: you would get a rash.

For non direct covers you can cover the fields for longer periods, resulting in smoother flavors and deeper Umami. The double layer cover blocks up to 95% of the sun, this results in an either more smooth flavor and deepest Umami in the leaves.

The Umami flavor comes from amino acids, the L Theanine contained in the leaves. These amino acids come from the roots and reach the leaves. Once they reach the leaves, the sunlight turns the amino acid into catechin, which is responsible for the bitterness and astringency found in the leaves.

Therefore, the better, the longer the tea bushes are covered, the richer Umami flavor they will yield.

Furthermore, a hand picked Matcha will be smoother than a machine picked Matcha, and the same goes with undirect cover (smooth flavor) and direct cover (less smooth) because machine picking and direct covers cause damage to the leaves, resulting in more bitter flavors.

Storage method:

At Rishouen, we keep the refined raw material, Tencha, in vacuum sealed aluminum bags, in a cooperative refrigerator, away from heat, light and strong smelling products. The Tencha is kept in this state, not ground, until we need to ship Matcha. Then, the Tencha is taken out of the refrigerator to be ground into powder. Once the Tencha is ground into powder, it becomes very sensitive to heat, humidity, light, strong smelling products and will easily loose its freshness if it is not handled properly, which is why we keep the leaves in their 'Tencha' state as long as possible and do not grind all of the Tencha at once into Matcha powder when we buy the Tencha during the 1rst and 2nd harvest. (Rishouen does not buy later harvests, only 1rst and 2nd).

3) How do you get from leaves to powder?

Tencha can be ground two ways:

- Traditional stone mill that grind the Tencha into powder – (only 40g of Matcha per hour, the powder does not overheat, no overcooking, preserving the fresh Matcha flavor and aroma)

- Modern machines that pulverize the Tencha into powder via airflow (lots of Matcha pulverized at once, less expensive, but loss of quality in terms of flavor and aroma).

At Rishouen, all our Matcha are stone ground.

4) What kind of problems or diseases could occur in tea gardens or during matcha processing?

Problems during Matcha processing: (this is a non-exhaustive list)

- The tea trees might be too old, or not healthy, leading to a lack of Umami or displeasing flavors in the leaves.

- The fertilizing might be done wrong – not the right timing, not enough…= not enough Umami

- The covering might be done wrong – too long (the tea leaves shrivel up) , not at the right timing (too late, not enough Umami, the tea leaves grow too big and hard and more bitter..)

- Climate and weather: due to global warming, the winter 'sleeping' stage might be too short as the winters are less cold: the tea buds start coming out early and might suffer from frost later in the season.

- The leaves might be kept in their semi-finished state (Aracha) too long, leading to oxidization and loss of freshness

- Blending – the flavor of the Matcha can be flat, lack depth, be bitter, not balanced depending on the Tencha used for blending

5) What are the main differences between cooking matcha and high quality matcha?

The difference lies in the Tencha processing, and/or grinding method (most cooking Matcha on the market are pulverized with air flow to maximize revenue and minimize costs)

A high quality Matcha might be composed of a blend of 1rst flush Tencha only (smooth flavor, balanced, rich Umami, more elegant and less stark Matcha flavor), and a lower quality blend might be composed of 2nd harvest, or even later harvest (autumn) Tencha.

Furthermore, the picking method (hand picked, machine cut) also have an effect on quality (smoother or starker flavors).

At Rishouen, the highest quality Matcha are hand picked in spring, covered up to more than 50 days before harvest, under a double layer cover that will block up to 95% of the sun light, and of course, stone ground, resulting in a precious powder that can be used equally to prepare delicious Usucha – standard Matcha prepration – and Koicha thick tea.

There are also Matcha made from lower quality Tencha – still 1rst harvest, but not hand picked, with flavors that are less smooth-- and would be too bitter for the preparation of Koicha, but are good fits for the preparation of good Usucha. These teas would be considered a good middle grade Matcha by Rishouen. However, even though these are considered middle grade by us, they might be considered quite high grade outside of Japan, or even in Japan for people who are not into tea ceremony and do not know much about Matcha.

Even lesser quality Tencha will be used for culinary grade Matcha. Our culinary Matcha contain machine picked Tencha (which have less of a smooth flavor than hand picked Matcha), and go from a blend of 1rst flush lesser quality Tencha to blends of 2nd harvest Tencha.

Our best culinary grade Matcha, the Matcha Sosori, is a blend of 1rst flush machine cut Tencha (direct cover) and can be whisked in an Usucha at 60c water, but the resulting Usucha will not be as delicious as Usucha made from our higher grade Matcha that are blended with the goal to make a tea that will be used mainly traditionally whisked in water with a chasen. This would be our view, but our customers outside of Japan often tell us that our Matcha Sosori is delicious as an Usucha, and this shows the difference in quality markers in and outside Japan, or even within Japan as the Japanese are less and less aware of the Matcha culture nowadays.

Our lesser blends for culinary grades contain a mix of both 1rst flush spring Tencha and 2nd Tencha, or only 2nd flush Tencha, but we do not buy later harvests as we do not consider them to be good enough in terms of flavors and color.

However, on the Matcha market, many culinary Matcha come from Autumn harvest, which are less expensive, but will have much less vibrant green colors and also much starker, more bitter flavors than 2nd harvest or 1rst harvest Tencha.

6) How can we understand if the matcha we are buying is good or not?

The markers for quality differ in Japan and outside of Japan. However, let's say that in Japan, for Matcha connoisseurs, the highest quality Matcha have no restrictions in terms of preparation in the tea ceremony: they can be used to make equally delicious Usucha - standard Matcha preparation – and Koicha thick tea.

Koicha is a thick tea prepared by whisking with a bamboo whisk as well, but this kind of preparation includes twice as much as Matcha powder as the Usucha preparation, and maybe twice less water, resulting in a thick, highly concentrated Matcha paste – see picture of our First class Matcha prepared as an Usucha and Koicha attached to this e-mail for your reference.

For Koicha preparation, a higher quality Matcha is required, because higher quality Matcha are smoother, less bitter and more balanced than lower quality Matcha. If a bitter Matcha is used to prepare a Koicha, the result will be bitter and unpleasant. The higher the quality of the Matcha, the stronger the beverage that can be prepared with the powder, without any undesirable impact on the flavor of the beverage.

Therefore, the best Matcha can be used to make both delicious Usucha and Koicha without bringing out displeasing bitter flavors.

When tasting a Matcha, the first thing that appears is the color of the powder: is it brownish, lacking luster? Then comes the flavor: a good Matcha is balanced, might have a hint of sweet bitterness, but not too much, just enough to complement the mellow Umami typical of good quality Matcha. The higher the quality, the smoother, the more elegant the flavor, and the deeper, the richer the Umami, accompanied by creamy, milky or sweet flavors with no displeasing bitterness.

The lower the quality, the lesser the color, the starker the flavor, with displeasing bitterness appearing, lack of Umami, lack of balance and lack of depth.

7) How do you prepared your cup of matcha? What mistakes can we make at home?

A) Take the Matcha out of the refrigerator and let the can reach room temperature before opening

B) Make water boil and let it cool to 75-80° C

C) Dab the chasen into warm water to make it flexible and prevent the brittles from breaking during whisking

D) Open the Matcha can when the room temperature is attained (to prevent humidity from forming on the powder – humidity = oxidation = loss of color and freshness + creation of bitterness) and take out two scoops of powder with a chashaku (or a tea spoon if no chashaku available) – that would be from 1.5 to 1.7g Matcha

E) Put the matcha powder in a tea strainer over the chawan. This allows for the powder to become extra fine from going through the strainer, and will help with dissolving the powder into water to make foam.

F) Add 60- 70 ml water in the chawan (at about 75-80° C)

G) Position the chasen between your thumb, index finger and middle finger, and press it down, with other fingers resting on it. Start whisking immediately.

H) First go around the walls of the bowls in a circle to crush any powder sticking to the walls

I) Then scratch the bottom back and forth to make foam

J) Lift the chasen to a higher level and whisk rapidly in an M or W shape

L) Bring the chasen to the top layer to break up bubbles that might have formed during whisking.

M) Through a circular motion, bring the chasen to the middle of the bowl. Make a rotation with the chasen over the top layer of foam, and then remove the chasen straight up in an upwards movement.

N) Drink :)

Mistakes:

- Not keeping the powder from light, humidity, air and strong smells
- Not letting the powder reach room temperature before using
- Not enough powder
- Too much water (or not enough)
- Lukewarm water (more difficult to make foam)
- Lack of fluidity. Too much strength in shoulder and elbow when whisking
- Movement coming from shoulder or elbow instead of the whisk
- Finger position on chasen too high (not enough strength can go into the whisking)