Name:

Date:

|  |  |  |  |
| --- | --- | --- | --- |
| Type of TeaGreen Tea | AppearanceDried or Steeped | Flavor Notes  | AromaDried or Steeped |
| Genmai cha |  |  |  |
| Kabusecha |  |  |  |

Tea Workshop-Week 9

**Tips for Smelling**

 Inhale the smell of the tea before taking the first sip; the smell (volatile compounds) adds to the taste of the tea. What do you notice? Does the smell evoke any memories? What other smells does the aroma remind you of?

* Grassy, floral, woody, smoky, sweet, spicy, animal, mineral, vegetal, marine, etc.
* Citrus, undergrowth, aromatic herbs, fresh grass, dried grass.

**Tips for Tasting**

 Notice where the flavor notes hit your tongue. Is it on the tip of your tongue, the middle, or the sides? Notice how the flavor travels and how the flavors change the way your mouth feels. Do you notice the flavor immediately? Or after you’ve swallowed? If you hold your nose what does the tea taste like?

* Spicy, woody, astringent, bitter, sweet, floral, savory, etc.?

**Appearance**

* What color is it?
* Can you see through it?

|  |  |
| --- | --- |
| Green Teas famous from China | 1. Long Jing
2. Bi Luo Chun
3. Anji Bai Cha
4. Xin Yang Mao Jian
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| History and major growing locations of Chinese Green Tea | * Numerous traditional methods handed down through centuries according to the customs of each region
* Represent 70% of all Chinese production
* Major growing regions are located in the south of the country
1. Fujian (2) Zhejiang (3) Anhui (4) Henan (5)Jiangsu (6) Jiangxi
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| Japanese Green Tea | * Japanese use a unique method by planting their trees side by side. They are then pruned with cylindrical hedges of varying eights with a semi round surface.
* Growers put straw inbetween the beds to keep the soil from eroding or drying out
* 55 cultivars registered in Japan of which 40 are used for production of Green Tea
* Yabukita, Gokou are two of the most well known varieties.
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| Japanese techniques  | * Uji method: The use of steam to process and preserve the fresh aroma notes of the green tea.
* Aracha Japanese word for the initially processed leaves similar to the Chinese Maocha
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| Making Aracha | * **Picking:** Carried out with machine equipment with scissors and a small air compressor, which, blows the leaves back into the bag.
* **Withering:** Leaves are quickly sent to the dehydration stage, some may let the leaves stand for a few hours
* **Steaming:** The leaves are heated with steam for 20-80 seconds.This step is what gives the unique aromatic quality to Japanese Green tea.
* **Cooling:** After steaming the leaves are cooled by being blown through synthetic mesh tubes or by being placed in large rotating cylinders. This removes any excess humidity in the leaves.
* **First Drying:** at 210 degrees F for about 45 minutes in a rotating cylinder, then another 30 minutes in a similar machine. The edges of the cylinder are made of rough bamboo and during drying the mechanical arms mix the leaves constantly so they brush against the walls. This action is a determining factor in the color of the tea and the release of tannins which add to the astringency of Green Tea.
* **Rolling:** Lasts 20-30 minutes, it softens the stems and and releases the aroma of the leaves
* **Second Drying:** Dried a second time for 20-40 minutes at 86 degrees F.
* **Shaping:** a machine with mechanical arms gives the leaves a needle shape. The process can take 40-60 minutes at temperatures varying from 158 to 248.
* **Third drying:**  The leaves are then put onto a circulated conveyor belt for 30 minutes as they are heated at 185 degrees, to finally produce Aracha.
* **Sifting and Sorting:** Dust, stems and leaves are separated, then, using different sieves the leaves are mechanically graded by size and color
* **Final Drying:** Leaves are heated to a temperature of about 105 degrees F to bring out aroma.
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| Japanese Tea ceremonyChanoyu | * Practiced according to the principles defined by Sen No Rikyu
* Can last two to three hours with a max of four participants
* Sukiya (Tea Room) Predominately a place of peace, low doors so all who enter have to kneel)
* Roji (Garden path that breaks the connection between the world and the tea room)
 |
| Rules of Chanoyu set by Sen No Rikyu | * Arrange the flowers as they grow in the fields. Flowers should be arranged in such a way as to suggest nature in all its simplicity. The host must prepare the room with sincerity and devotion. The environment must be very comfortable and adapt to the seasons.
* It was very important that the host pay very close attention to detail and give their guests their full attention.
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| Tea it’s Pharmacology | * “Only those beverages which affect the central nervous system have survived the acid test of time.”
* The most important constituents of tea are the mixed xanthine bases
* The principal one of these is trimethyl xanthine which, has been found to identical with caffeine
* Theobromine, theophylline, and Xanthine
 |
|  | * Macintosh HD:Users:kotoyam:Desktop:Caffeine_metabolites.svg.png
 |
|  | * The Three methylated xanthines evoke similar pharacologic responses. They differ, however in their degree of response to different tissues.
1. Cerebral stimulants (2) Coronary vessel dilator (3)Diuretics
* Other actions inclue cardiac stimulation and respiration stimulation.
* Of the three main actions of the methylated xanthines, caffeine is preferred for cerebral stimulation
* Theophyline is the drug of choice for coronary dilation
* Theophylline exceeds theobromine in its acute diuretic action but the diuresis of theobromine is more prolonged and therefore is the iduretic which is generally prefered.
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| The Tannins of Tea | * Organic compounds collectively called tea-tannins
* 7-25% in the dried leaf
* Tannins designated as the polyphenols
* The tannins or polyphenols may be divided into two classes depending upon their solubility in ethyl acetate.
* Soluable group occurs as an orange powder
* The insoluable group as a born powder
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| What are tannins? | * Bitter-tasting, complex aromatic compounds found in the vacuoles of certain plant cells, for example in bark. They are strongly astringent and are used in tanning and dyeing.
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|  | * The balance of tannins and caffeine together in tea do not produce the ill effects that can be experienced when consumed separately; the two substances form an antagonistic synergism. An example of an ill affect of consuming a beverage with too much tannin may be an upset stomach and nausea. An example of an ill affect of consuming too much caffeine can be irritability, shakiness/jitters, sleep loss, etc.
* Another variable that can affect the tea is the length of brewing and the quality. Since the type of tea, length of the brew, and the temperature of the water will change the amount of tannins and caffeine the brew will change in balance depending on the skill of the tea maker.
* Three minutes after pouring boiling water on tea most of the caffeine has been extracted and the caffeine/tannin ratio is at its highest.
* A longer brewing adds progressively more tannin but little or no additional caffeine
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| I. Phillips Frohman, Ph.G.,M.D. | * “Actually, in one sense, we need no experimental proof of the psychological benefits of tea; in many cases it is sufficient for the physician’s purposes that his patient merely think that tea has cheered and brightened his attiude toward life. If there is a distiction between one who is happy and one who thinks he is happy, the distinction is semantic”
* “Nevertheless, there is satisfaction to be gained from the fact that experimental proof does exist”
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| Richard L. Jenkins, M.D. | * “Man as a practice, supplements, the pharmacological stimuli he seeks in beverages by psychological and social stimuli, which reinforce and accentuate these pharmacological stimuli.”
* “They contribute to the enjoyable experience of finding oneself socially accepted by people who are quite sober.
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