

● Ingredient of Tea - Special Quality ●

● 【Moisture content】

Black tea is hygroscopic and if moisture content becomes higher, its quality will deteriorate easily. For this reason, it is important to control the green tea product at storage or for the economic efficiency of the manufacture. As for refined tea, two percent to four percent is proper.

● 【Total Nitrogen (T-N)】

The total amount of the nitrogen contained in protein, free amino acid, caffeine, etc. among black tea ingredients is called total nitrogen. Between the quantity of total nitrogen and organic-functions examination evaluation of black tea reveals positive high correlation. Good black tea has more total nitrogen. Therefore, the content of total nitrogen has been regarded as the important index on quality evaluation. The content of total nitrogen is about three percent to six percent

● 【Fiber< Neutral Detergent Fiber (NDF) includes ash>】

Neutral detergent fiber (NDF) is the ingredient which builds the cell wall of black tea. For this reason, NDF is related to the degree of ripeness of tea. The content is 12 percent in young buds, it increases as growth progresses, and it becomes as high as about 35 percent in mature leaves. Although, NDF measurement value can be noted by either methods, with ash or without ash, our company takes the NDF measurement with ash.

● 【Polyphenol】

Ingredients of dyes and astringency and bitterness of the plant are produced by photosynthesis. The majority of polyphenols of tea is catechin including epigallocatechin gallate and catechin compounds, theaflavin and thearubigin. Functionality to human health of polyphenols have been frequently reported. The polyphenol content of black tea is about 10 percent to 25 percent in black tea. The International Organization for Standardization; ISO11287: 2011 regulated as a definition of tea should include eleven percent or more polyphenols.

● 【Caffeine】

The bitter taste ingredient in black tea is caffeine and it is contained 1.5 percent to four percent in green tea. Generally young buds or shaded tea contains more, and less in coarse tea or black tea. Caffeine excites the central nerves system and has cardiogenic effect and diuretic effect, etc.

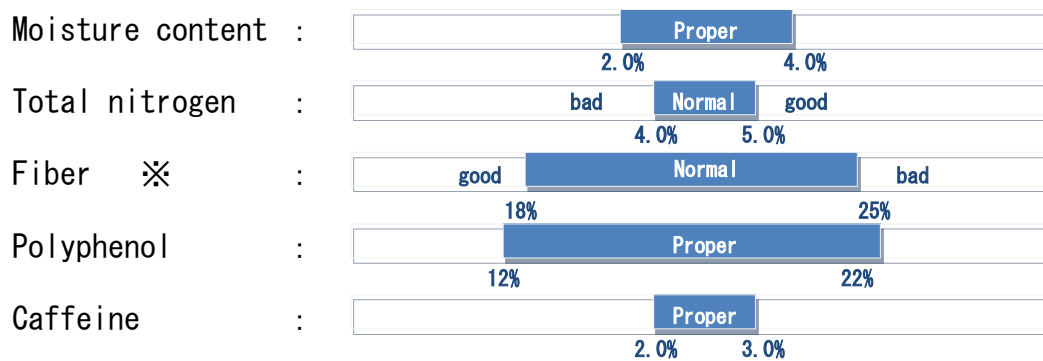
◆ Quality evaluation by the combination of Ingredients ◆

It may be better to evaluate the quality based on the combined ingredients in black tea rather than an independent ingredient estimation.

■About the notation method of Ingredient contents■

Two kinds are shown in the notation method of moisture content. One method is the ratio of moisture weight and the amount of dry matter weights 'Dry Base %' and the other is the moisture rate in the whole sample 'Wet Base %'. This analyzer has adopted the wet basis according to "Standard tables of food composition in Japan 4th Edition". For this reason, the display of 300DB% often seen at the time of tea processing is also displayed as 75WB%. It means the both have the same moisture contents. Two kinds are shown also in the notation method of each content of total nitrogen, fiber, polyphenol, and caffeine other than moisture. One is a notation of an ingredient content depending on making a sample of moisture content zero percent 'Dry Base DRY%' and the other is the notation of an ingredient content according to moisture at the time of sample measurement 'ASIS%'. We have adopted the dry base DRY% so that the mutual comparison of the ingredient of a black tea sample can be carried out. In order to carry out comparison examination of the content of each ingredient correctly, it is necessary to check exactly which notation method has been adopted.

■The standard of measured value■



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