

提高佳葉龍茶中 γ -氨基丁酸方法之研究

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摘要：佳葉龍茶為一含量高 γ -氨基酪酸 (GABA) 之茶葉新製品，由於有許多研究報告證實具有抑制高血壓功效，及其加工簡易和製造成本低廉等特徵，因此在日本很早就已商品化大量產製。商品化之佳葉龍茶以每百克乾茶至少含 150 毫克以上之 γ -氨基丁酸為最低標準 (150mg%)，且 GABA 含量愈高者售價愈高，反之則愈低。為提昇台茶經濟價值及多元化利用，本試驗以本省中次級茶區之茶菁原料研製提高佳葉龍茶中 GABA 之方法，試驗結果摘要如下：(1). 比較傳統單一嫌氣處理與多次反復嫌氣處理，不論產季與品種，三反復嫌氣處理明顯提高 GABA 之含量，其含量甚至可高達 300mg% 以上，遠比單一嫌氣處理高出 60~100mg，二反復嫌氣處理則些微提高 GABA 含量，但亦遠比傳統單一嫌氣處理高出許多 (30~50mg 以上)。(2). 三反復嫌氣處理茶湯水色呈明顯之紅褐色，偏向烏龍茶水色，二反復嫌氣處理茶湯水色近凍頂烏龍茶水色，傳統單一嫌氣處理較近文山包種茶水色，官能品評結果顯示三反復嫌氣處理香味較傳統單一嫌氣處理溫和，GABA 臭反不若單一嫌氣處理明顯。(3). 以遠紅外線先行照射 30~50 分鐘，再行嫌氣處理，亦可有效提高 GABA 含量 (約 30~50mg)，但效果不如反復嫌氣處理佳。以遠紅外線照射後，茶菁很容易褐變，成茶愈趨近烏龍茶水色。(4). 添加 0.2M 麩胺酸鈉溶液再以遠紅外線照射，雖可大幅增加 GABA 含量 (50~100mg)，但成茶麩胺酸亦明顯增加近 10 倍，且茶菁因噴灑麩胺酸鈉溶液，必須再行風乾，製造流程較煩瑣，此法有待再斟酌。(5). 現行試驗結果建議，以採行多次反復嫌氣處理法 (2~3 次) 製造佳葉龍茶最佳，如若原有遠紅外線萎凋設備，則以遠紅外線先行照射後，再以多次反復嫌氣處理，所製造出來的佳葉龍茶 GABA 含量最高，且可輕易達商品化含量。

Studies on the Promotion of γ - Aminobutyric acid Content in GABA Tea

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Abstract: Methods of promotion of γ -aminobutyric acid (GABA) contents in gabaron tea using fresh tea leaves materials from Taiwan medium tea area with various producing seasons and varieties were investigated in this study. A higher amount of GABA accumulation, both producing seasons and varieties, was observed in the samples of repeated anaerobically treated tea than the traditional single anaerobical treatment. An amount of 60~100, 30~50mg% of GABA content increased in the samples of three times repeated anaerobically treated and two times repeated anaerobically treated respectively than the traditional treatments. Color of infusion of three times repeated anaerobically treated tea showed a brown to red color same with oolong tea while two times repeated anaerobically treated same with Dung-ding type oolong tea and traditional ones same with paochung tea. Warming and withering with far infrared light for 30~50 minutes showed a higher amount of GABA content about 30~50mg% was observed also. Methods of spraying 0.2 M glutamate-Na solution for promotion GABA content was increased significantly. It is concluded that methods of promotion of GABA content with conditions under two or three times repeated anaerobically treated and far infrared withering provide an improved gabaron tea containing a large amount of GABA.