

E2 206

Effect of pruning cycle on the quality of tea in Dimbulla region of Sri Lanka

Pruning is an essential agronomic practice in the tea plantation. It is done every 2-3 year and 4-5 year in mid and up country respectively, to maintain the bushes in a manageable condition for plucking, stimulating the vegetative growth and maintaining the sanitary condition of the bushes.

A study was conducted in the up country Dimbulla region of Sri Lanka to ascertain whether the year of the pruning cycle would have an effect on made tea quality by using clone TRI 2025 with four different times from pruning, namely 1st 2nd , 3rd and 4th year after pruning.

Results revealed that the quality parameters such as total chlorophyll, total polyphenol, total amino acid and caffeine content tend to decline as the next prune approach. The total chlorophyll content declined from 3.92mg/g to 3.65mg/g, total polyphenol from 421mg/g to 400mg/g and caffeine from 29mg/g to 27mg/g. Catechin, epicatechin and polyphenol oxidase activity showed an upward trend as the next prune approach. i.e. catechin from 11mg/g to 12 mg/g, epicatechin from 7mg/g to 8mg/g and the polyphenol oxidase activity from 2.81×10^{-2} nmol/ml/min to 3.34×10^{-2} nmol/ml/min. Quality parameters like theaflavin and thearubigin tend to increase as the next prune approach, theaflavin from 0.7% to 0.9% and thearubigin from 10% to 12%. Therefore the results revealed that the quality tend to increase as the next prune approach; the 4th year after pruning showed better quality.