

Title Chemical changes and quality improvement in persimmon leaf tea induced by wilting
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Abstract

The traditional persimmon leaf tea is not well accepted by consumers due mainly to its prominent grassy notes. The objective of this study was to eliminate or reduce these undesirable elements. The improvement in the tea product was accomplished by artificially wilting the leaves before blanching in the traditional process. Freshly picked 'Anxi' persimmon (*Diospyros kaki* L. f. cv. Anxi) leaves were spread 3 cm thick and allowed to wilt at ambient temperature (26-30°C) for 3, 6 and 9 h. The leaves were turned over once every hour during the wilting process. Changes in the chemical constituents of the leaves while wilting, and the quality of the tea obtained from the treated persimmon leaves were determined. The results showed that wilting (a) significantly reduced the grassy notes, enhanced the taste and aroma, and improved the quality of the tea infusion; (b) increased the amounts of soluble sugars, dissociated amino acids and water-extractables in the leaves; and (c) decreased the amount of bioactive components, such as flavonoids, polyphenols and vitamin C in the leaves. By optimizing and controlling the wilting time tea quality improvements could be maximized and functional component loss in the persimmon tea minimized. Our study indicated that persimmon leaves wilted for 6 h at ambient temperature could yield a healthy tea product with desirable colour, aroma and flavor.