

富硒绿茶含硒量及硒形态的研究^{*}

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摘 要: 在低硒土壤上叶面喷施亚硝酸钠, 生产富硒绿茶, 应用原子荧光法测定了富硒绿茶中总硒含量及有机硒含量。结果表明, 茶叶喷施亚硒酸钠有显著提高茶叶总硒含量, 由普通绿茶的 $(0.121 \pm 0.030) \mu\text{g g}^{-1}$ 提高到富硒绿茶的 $(0.920 \pm 0.892) \mu\text{g g}^{-1}$; 同时发现, 富硒绿茶的有机硒总量和百分含量都比普通茶叶显著提高, 富硒茶叶的有机硒含量达 99 % 以上, 富硒绿茶中的硒主要为有机态硒。茶叶叶面施用亚硒酸钠可能刺激了茶叶机体对外源硒的吸收和利用, 将无机形态的硒转化为有机硒。

关键词: 富硒绿茶; 硒含量; 有机硒

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Study on Total Selenium Content and Organoselenium in Se-enriched Tea

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Abstract: Se-enriched tea was produced by spraying sodium selenite, combined with humic acid (HA) on leaves of tea. Total selenium content and organoselenium in tea was determined with the method of hydride generation atomic fluorescence spectrometry. The results showed that the total selenium content of tea sprayed with sodium selenite was significantly higher than that of ordinary green tea, from $(0.121 \pm 0.030) \mu\text{g g}^{-1}$ to $(0.920 \pm 0.892) \mu\text{g g}^{-1}$. At the same time, it was found that the total amount and percentage of organoselenium in Se-enriched green tea were significantly higher than those of ordinary green tea. The organoselenium content of Se-enriched tea reached 99% or more. Selenium in Se-enriched green tea was mainly in the form of organoselenium. The application of sodium selenite on the tea leaves may stimulate the absorption and utilization of selenium by the tea plant, and convert inorganic selenium into organic selenium.

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