

The Measure of Antioxidant Capacity of the Different Rice Seedlings' Extract

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Abstract

Antioxidant capacity, as measured by Trolox equivalent antioxidant capacity (TEAC), DPPH scavenging activity, total phenolic, and ferric reducing power were evaluated in the extraction of young seedling of six rice cultivars including Taitung 30, Taikeng 9, Taitung glutinous 31, Kaoshiung Sen glutinous 8, Taichung Sen 10, and Taisen 2. In ethanol fraction, 14-days etiolated seedling of Taichung Sen 10 had the highest values on the basis of TEAC assay. Values for DPPH scavenging, phenolics, and reducing powder in 14-days green seedling of Taichung Sen 10 were significantly higher than the other materials. In water soluble fraction, 14-days green seedling of Taikeng 9 and Taichung Sen 10 had much higher antioxidant activity based on TEAC assay than all other entities. Green seedling of 7-days old of Taichung Sen 10 had the highest DPPH scavenging ability. Phenolic content and reducing power were higher than the others in 14-days green seedling of Taichung Sen 10. These results could be useful for future application.

Key words : Rice, Antioxidant capacity, Green seedlings, Etiolated seedlings.

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