不同乾燥處理對黑大蒜抗氧化能力之影響

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摘 要

本研究主要以探討三種不同乾燥方法(熱風乾燥、冷凍乾燥、噴霧乾燥)對台灣產黑大蒜抗氧化能力和成分之影響。在抗氧化試驗中，包含清除2,2-diphenyl-1-picrylhydrazyl (DPPH)自由基能力和清除OH．自由基能力等二種。研究結果顯示，噴霧乾燥和熱風乾燥之清除DPPH自由基能力EC50分別為1.58 mg/mL和1.57 mg/mL，此兩種乾燥方式對保存清除DPPH自由基能力效果最佳；而在清除OH．自由基能力方面，則以噴霧乾燥方式保存的最佳，其清除OH．自由基能力EC50為0.81 mg/mL。在總醣含量分析結果，以未經乾燥處理的黑大蒜產率最高為7.29% (w/v)。總酚含量分析結果則以熱風乾燥和噴霧乾燥產率最高，分別為170 ppm ± 4.0 ppm (w/v)和133 ppm ± 3.0 ppm (w/v)。未經乾燥處理的台灣產黑大蒜和生大蒜，二烯丙基二硫化物(Dially disulfide, DADS)含量，分別為849.39 ± 12.28 μg/g和842.56 ± 13.29 μg/g，但兩者經由不同乾燥處理後，DADS卻都有明顯的降低。此外從Fourier Transform Infrared Rays (FTIR)分析訊號顯示，兩者圖譜無明顯差異。

關鍵詞 : 黑大蒜、乾燥、抗氧化、總酚、二烯丙基二硫化物

目錄

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