

P2.40. Phenolic contents and antioxidative properties of some grapes and wines of SUT farm

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The phenolic antioxidants in grapes and wines have been proposed as an explanation for the lower death rate from coronary heart disease (CHD) in France referred as to The French Paradox. Phenolic compounds play roles as antioxidant in both biological and food systems. Grapes and wines are one of the rich sources of active polyphenols depending on variety, geology, growing environment and processing. There is little knowledge of phenolic contents and their antioxidative properties in grapes and wines produced in Thailand. The objectives of this study were to evaluate and compare phenolic contents and antioxidant properties of grapes and wines of Suranaree University of Technology (SUT) farm. Eight grape and six wine varieties were used to evaluate for total phenolic contents by Folin-Ciocalteu method using gallic acid as standard. Free radical scavenging efficacy of grape and wine extracts were determined, using the stable 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical and expressed as effective dose 50 (ED50). Phenolic contents and EC50 of SUT grape juice with and without seed varied from 0.7-3 mg/mL and 0.1-2.5 mL/100mL reaction assay and SUT wine varied from 0.3-2.4 mg/mL and 0.1-4.5 mL/100 mL reaction assay, respectively. Exotic grape and wine made from Mei Gui Qing variety had the highest total phenolic content and antioxidative property. Antioxidant activities of wines were greater than those of grape juice of the same variety. Red wines showed stronger antioxidant activities than white wines. For further studies, changes and profiles of phenolic compounds in wines of same varieties will be evaluated.