

**THE COMPARISON OF TOTAL PHENOLIC
AND FLAVONOID BETWEEN *Solanum lycopersium* L. AND
Solanum lycopersium var. *cerasiforme***

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ABSTRACT

THE COMPARISON OF TOTAL PHENOLIC AND FLAVONOID BETWEEN *Solanum lycopersium L.* AND *Solanum lycopersium var.* *cerasiforme*

The objective of this study was to determine total phenolic and flavonoid content from skins, seeds, and pulps of *Solanum lycopersium L.* and *Solanum lycopersium var. cerasiforme*. Next, the other objective was to compare the total phenolic and flavonoid from skins, seeds and pulps between *Solanum lycopersium L.* and *Solanum lycopersium var. cerasiforme*. In qualitative analysis, there were absence of phenolic and flavonoids in seed but presence in skin and pulp for both samples. In quantitative analysis, total phenolic and flavonoid of *Solanum lycopersium L.* was higher compared to *Solanum lycopersium var. cerasiforme*. The total phenolic content in the three part of *Solanum lycopersium L.* ranged from 40.32 ± 0.12 mg GAE/g to 11.89 ± 0.10 mg GAE/g while *Solanum lycopersium var. cerasiforme* ranged from 20.69 ± 0.21 mg GAE/g to 5.63 ± 0.15 mg GAE/g. Next, total flavonoids content from skin, pulp and seed of *Solanum lycopersium L.* ranged from 7.96 ± 0.11 mg GAE/g to 4.20 ± 0.04 mg GAE/g while *Solanum lycopersium var. cerasiforme* ranged from 4.22 ± 0.03 mg GAE/g to 2.65 ± 0.03 mg GAE/g. Furthermore, the total phenolic and flavonoids of skin and pulp extracts for *Solanum lycopersium L.* and *Solanum lycopersium var. cerasiforme*. were significant ($p < 0.05$). Therefore, it is important to consume tomatoes along with their skin in order to attain maximum health benefits. Besides that, a few factors such as optimal condition and use several solvents to maximize the yield of antioxidant should be considered in qualitative analysis.