

ABSTRACT

Elira Tabitha (00000000737)

UTILIZATION OF RED WATER APPLE LEAF (*Syzygium racemosum* [Blume] DC.) AS “GREEN TEA” DRINK

(xvi + 72 pages: 30 figures, 7 tables, and 28 appendices)

*Red water apple leaf (*Syzygium racemosum* [Blume] DC.) has been reported to contain antioxidant compounds such as phenolic compounds, flavonoid, and condensed tannin. This research was aimed to produce “green tea” drink made from water apple leaf. The tea drink was made by processing the water apple leaf with the same process as “green tea”. The water apple “green tea” was then brewed with different temperature of 70, 85 and 100 °C, and brewing time of 5, 15, 25 and 35 min. Physicochemical properties of the “green tea” drink includes antioxidant activity, total phenolic, total flavonoid, and total condensed tannin. This study showed that the brewing temperature of 100 °C and brewing time of 35 min was considered as the best with IC_{50} of $126,73 \pm 4,22$ mg/L, total phenolic compound of $856,54 \pm 49,13$ mg GAE/L, total flavonoid compound of $73,88 \pm 3,92$ mg QE/L, and total condensed tannin of $117,80 \pm 2,93$ mg CE/L. The best brewing treatment was also used to brew dried water apple leaf and fresh water apple leaf. Compared to dried and fresh leaf, water apple leaf “green tea” contains the highest antioxidant activity, total phenolic, total flavonoid, and total condensed tannin.*

Keywords: red water apple leaf, green tea, *Syzygium racemosum* (Blume) DC., brewing temperature, brewing time

References: 67 (1995-2016)