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Analysis of phenolic, flavonoid and anthocyanin content in edible flowers

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Phenolic compounds such as flavonoids and anthocyanin play a major role as antioxidants. Flowers are an important plant part that contain high amount of phenolic antioxidants. People use different flower species for different preparations. In this study, ten edible flower species, *Aponogeton crispus* (Kekatiya), *Lasia spinosa* (Kohila), *Sesbania grandiflora* (Kathurumurunga), *Cassia auriculata* (Ranawara), *Aegle marmelos* (Beli), *Hibiscus rosa-sinensis* (Pokuruwadamal), *Allium cepa cv. group Cepa* (Onion), *Brassica oleracea var. botrytis* (Cauliflower), *Gmelina asiatica* (Demata) and *Azadirachta indica* (Kohomba), were collected, oven dried, ground and phenolics were extracted using 80% methanol. Various *in vitro* assays were conducted on these flower extracts to determine the total phenolic, total flavonoid and total anthocyanin contents. The total phenolic content ranged from 5.28±0.25 to 35.66±1.47 g of gallic acid (GAE)/kg of fresh material (FM) among selected flower species. The flavonoid content was in the range of 2.53±0.50 to 25.54±0.82 g of quercetin equivalent (QE)/kg of FM. The anthocyanin content was also high in these edible flowers and ranged in between 3.09±0.11-101.18±5.36 g/kg of FM. *Aegle marmelos* had the highest total phenolic (35.66±1.47 g of GAE /kg of FM) and flavonoid content (25.54±0.82 g of QE /kg of FM) while *Hibiscus rosa-sinensis* had the highest anthocyanin content (101.18 g/kg of FM). This study revealed that edible flowers are a good source of phenolics, flavonoids and anthocyanins**.**

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