

## Chemistry and Bioactivity of some Popular Edible Fruits of Sri Lanka

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The use of environmentally friendly natural products can lead to the improvement and quality of daily life. Edible fruits have been used as a source of nutraceuticals from ancient times and knowledge of their efficacy has passed from generation to generation. Based on this knowledge and experience, edible fruits are a potential source to identify environmental friendly bioactive compounds, since safety and toxicological issues are remarkably less than those associated with compounds from other natural sources. For example it is well known that a diet rich in fruits and vegetables significantly reduces the incidence and mortality rates from cardiovascular disease and certain cancers in human being. Management of various diseases in plants and humans by the use of natural products rather than by the use of synthetic compounds offers less risk, and natural products are generally more acceptable and less hazardous than synthetic compounds. Synthetic compounds are often toxicologically and environmentally undesired. There are over 3500 flowering plants in Sri Lanka, including ~800 endemic species. But only a relatively low number of plants have been chemically and biologically investigated. Fruits have been subjected to these studies less frequently than other plant parts. Recently we commenced a research project titled "Chemistry and bioactivity of edible fruits" Under this project we investigated some popular edible fruits of Sri Lanka *Aegle marmelos*, *Artocarpus altilis*, *Artocarpus nobilis*, *Averrhoa carambola*, *Flacourtia indica* and *Flacourtia inermis*. These studies led to the isolation and structure elucidation of various classes of compounds including some novel natural products. Some of these isolates showed significant antioxidant, antifungal, cytotoxic and phytotoxic activities.

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