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BIOACTIVE EXTRACTS FROM FRUITS OF *Manilkarazapota***W. M. A. S. Gangoda¹, K. G. E. Padmathilake^{1,2}, N. S. Kumar¹,
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Manilkarazapota (local name - *Sapodilla*), belonging to the family Sapotaceae, is a tropical fruit native to Yucatacan and nearby parts of southern Mexico and Central America. *M. zapota* is a yellow brown colour fruit which is ellipsoidal in shape having a soft pulp and containing about 3-5 seeds. The fruit was found to contain high amounts of carbohydrates, saponins and antioxidant polyphenolic compounds such as tannins (proanthocyanidins) which has extreme astringent properties. Earlier research studies have revealed that fruits and leaves of *M. zapota* show antifungal effects and antibacterial activity and also that the fruit has a strong nitric oxide scavenging activity and inhibitory effects against tumour cell proliferation. Few studies have been reported regarding the bioactivity of fruits of *M. zapota*, owing to the fact that *Sapodilla* is a rare fruit tree.

Ripe fruits of *M. zapota* were collected from Kandy district, Central Province of Sri Lanka in April 2012. The edible parts of the fruits (400 g) were cut in to small pieces and sequentially extracted at room temperature with Hexane, EtOAc and MeOH (30 min x 3) using a sonicator. The extracts were filtered and the filtrates were evaporated under reduced pressure (rotary evaporator) to obtain the Hexane extract (1.1 g), EtOAc extract (3.4 g) and MeOH extract (38.0 g).

All the crude extracts obtained were subjected to bioassays for antioxidant free radical scavenging activity against DPPH (2,2'-diphenyl-1-picrylhydrazyl) radical with spectrophotometric method; brine shrimp lethality test against *Artemiasalina* using micro-well bioassay and α -amylase inhibition activity using a spectrophotometric method. BHA was used as the standard for the antioxidant assay and Acarbose was used as the standard for the α -amylase inhibition bioassay.

None of the extracts of *M. zapota* showed significant toxicity to brine shrimps. The MeOH extract of *M. zapota* showed an IC₅₀ value of 2375 ppm for the α -amylase inhibition activity. Both EtOAc extract and MeOH extract were antioxidant active showing IC₅₀ values of 1500 ppm and 775 ppm respectively.