

# Total phenolic, flavonoid, $\beta$ - carotene and *in-vitro* anti-oxidant activity of vegetable wastes collected from hotels and food processing centre

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The present study compares Total Phenolic Content, Total Flavonoid Content,  $\beta$ -carotene content and *in-vitro* antioxidant activity of hydro-methanolic (20:80) extract of three commonly available vegetable wastes namely tomato pomace (TP), skin of green pea pod(GP) and beet root peel (BP) from hotels and food processing center nearby Kolkata, India. BP showed significantly ( $P<0.05$ ) higher level of total phenolic contents followed by GP and TP. On the other hand, GP showed highest ( $P<0.05$ ) flavonoid content followed by TP and BP. This study revealed that  $\beta$ -carotene content in TP was significantly ( $P<0.05$ ) more than in GP, although no  $\beta$ -carotene was detected in BP. DPPH assay for *in-vitro* anti-oxidant activity indicated highest antioxidant activity in BP followed by GP and TP. It is concluded that beet root peels might be used for producing functional food/feed additives due to its high anti-oxidant capacity and warrants further study in this regard.

**Key Words :** Antioxidants,  $\beta$  Carotene, DPPH, Flavonoid, Phenolic, Vegetable wastes

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