

OPTIMIZATION OF VARIOUS EXTRACTION METHODS, FOR QUERCETIN FROM ONION SKIN

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ABSTRACT

Onion (*allium cepa* L.) is the second most important horticultural crop worldwide, with an annual production of 66 million tons (FAO statistics, 2010). Large amounts of onion waste are produced both domestically and industrially, making it necessary to search for their utilization. These wastes get decayed and add themselves to soil causing odour and in some cases, causing harm to the environment. Hence, there is a need to find other uses of onion waste. The objective of the present work is to explore the possibility of utilizing onion wastes, for their nutraceutical values as food ingredients, which would greatly add to the value of waste. Attempts were made to extract Quercetin, a potent antioxidant, through step wise, continuous and vacuum assisted solvent extraction procedures. Quantification of Quercetin was done through Spectro photometric analysis and HPLC. An attempt to develop micro emulsions was carried out but, there is scope for further studies in this area.

KEYWORDS: Onion & Quercetin