

Variation in pharmacologically potent rutinoside-bearing flavonoids amongst twelve *Moringa oleifera* Lam. Cultivars

Makita C  
Madala NE  
Cukrowska A  
Abdelgadir H  
Chimuka L  
Steenkamp, Paul A  
Ndhhlala AR

ABSTRACT:

Recent evidence has shown that consumption of plants rich in phenolic compounds has health-promoting benefits. Amongst these plants, include *Moringa oleifera* Lam. (Moringaceae) which has gained significant attention due to its high contingency of secondary metabolites. It has also been shown that the quantity of nutritional and health promoting secondary metabolites in *M. oleifera* is cultivar specific. As such, in the current study, the distribution of three pharmacologically potent flavonoids [quercetin rutinoside (rutin), kaempferol rutinoside and isorhamnetin rutinoside] was investigated using untargeted metabolomic approach with the aid of UPLC-qTOF-MS. The results of this study, suggest only three out of the twelve cultivars investigated were found to contain these flavonoid molecules in significant amounts. The current results, coupled with other techniques therefore, suggest rutinoside-bearing flavonoids could be used to group different cultivars of *M. oleifera* which can definitely help with selection of pharmacologically potent cultivars.