

### Abstract:

Glucosinolate (GS) composition and contents were evaluated in Chinese Brassica vegetables including pak choi (*B. campestris*), mustard (*B. juncea*) and cole groups (*B. oleracea*). Of the 9 Brassicas, collard had the highest total glucosinolate content, followed by kale, cabbage mustard and Chinese kale. The lowest concentration was found in pak choi. Glucosinolate profiles and contents varied among the different groups and also within each group. The main glucosinolates in pak choi were 3-butenyl- and 1-methoxy-3-indolylmethyl- glucosinolates, in choy sum 3-butenyl- and 2-hydroxy-3-butenyl-glucosinolates and in tai tsai 1-methoxy- 3-indolylmethyl- and 4-pentenyl-glucosinolates. Two types of glucosinolate profiles were detected in mustard group. 2-Propenyl-GS was the major glucosinolate representing about 90% of the total amount in cabbage mustard, whereas in pot herb mustard, 3-butenyl-GS was the dominant glucosinolate representing about 70% of the total. The predominant glucosinolates in kale were 3-indolylmethyl- and 3-methylsulphinylpropyl-GS. High amounts of 4-methylsulfinylbutyl-GS were only determined in Chinese kale. In addition, 3-butenyl-GS was also a dominant glucosinolate found in Chinese kale. In collard, 2-hydroxy-3-butenyl-GS was the predominant glucosinolate which made up 43% of the total amount; 2-propenyl-GS and 3-indolylmethyl-GS were about 20% of the total. Glucoraphanin content in Chinese kale reached 118.9  $\mu\text{mol } 100 \text{ g}^{-1}$  FW which could be regarded as a valuable Brassica for anticarcinogen.