

Resistant Starch Content of Commonly Used Legumes in Jaffna Peninsula

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Resistant Starch (RS) is a useful nutrient to our body and it has several benefits. The aim of this study is to evaluate the resistant starch (RS) content of different varieties of legumes which are commonly consumed in Jaffna peninsula. Different varieties of legumes like green gram [*Vigna radiata* (L.)], black gram [*Vigna mungo* (L.)], cowpea [*Vigna unguiculata*] and chickpea [*Cicer arietinum*] were analyzed. Among these legume varieties, black gram had the highest percentage of resistant starch content (as % of total starch basis) both in raw and boiled forms (61, 50% respectively) and which had the lowest percentage of non-resistant starch content both in raw and boiled sample (39, 50% respectively). Whereas, green gram had the lowest percentage of resistant starch content both in raw and boiled sample (23.5, 10.6% respectively) and which had the highest percentage of non-resistant starch content both in raw and boiled sample (76.5, 89% respectively). The mean total starch content of cooked chickpea, green gram, black gram and cowpea were 43.00(± 0.22), 42.25(± 0.45), 35.30(± 0.11), 42.74(± 0.17) g/100g dry sample respectively. During cooking, the RS content of all the legume sample has decreased with an increase in non-resistant starch content. Mean values of resistant starch, non-resistant starch and total starch contents of all the raw and cooked legume samples were varied significantly ($p < 0.05$) from each other. High RS content foods are better choices for patients who are suffering from diabetes mellitus and coronary heart diseases while low RS foods are good for athletes.

Keywords: Resistant starch, Total starch, Non-resistant starch, Legumes