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Evaluation of polyphenols in blackcurrants and greencurrants

The study examines the inhibition of α-glucosidase activity in blackcurrants in comparison to greencurrants. α-glucosidase is effective in the breakdown of carbohydrates in the small intestine that also limits the transportation of glucose that passes through. The study also investigated the AGI of berry metabolism by using a stimulated model after vitro gastro-intestinal digestion. Freeze dried currants are used for phenolic analysis. The methods are used for determining photochemical existence in berries. Effect of individual phenols in humans and yeast α-glucosidase are examined. α-glucosidase is isolated from human intestinal Caco-2 cell line and AGI of metabolites are also evaluated. One-way analysis of variance depicts that the value of phenol is a= P<0.05, b= P<0.01 and c= P< 0.0.

Graphical analysis explains the differences among berries on the basis of photochemical. The scatter plot diagram also shows the differences that exist in the berries. Heat map is also used for examining phenolic compounds. They are arranged from highest to lowest according to these differences among berries. The findings depict that blackcurrants contain specific anthocyanin, which are comparatively low in greencurrants. It is also determined that blackcurrants exist in compound form that offers benefits such as helping in regulating postprandial hyperglycaemia. A common advantage includes prevention from the development of type-2 diabetes. In conclusion, it is confirmed that the α-glucosidase inhibitor varies in blackcurrants and greencurrants. Their high presence in blackcurrants depicts phenol activity is more apparent in them, compared to greencurrants. Blackcurrants are effective in prevention of type-2 diabetes because the process of breaking down carbohydrates is rapid.