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King of All Fruit: Assessment of Durian Antioxidant and Cytoprotective Properties

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Duriozibethinus (durian) is a thorny shelled, podded pulp bearing fruit indigenous to Southeast Asia. Durian shell and rind have been shown to have antioxidant activity; however, the antioxidant activity of durian pulp has not been examined. In this study, the durian pulp antioxidant activity was evaluated as well as a closely related fruit, *Artocarpus heterophyllus* (jackfruit). First, TEAC assays were conducted to determine durian and jackfruit antioxidant activity. Next, durian and jackfruit were introduced to PtK-2 cells at a 2.0% concentration (in DMSO) and to determine if these dosages could “rescue” cell death caused by hydrogen peroxide. Initial data supports the hypothesis that both species possess enough antioxidant properties to prevent total cell death cause during the “rescue”. However, the quantitative data suggests that jackfruit is a stronger antioxidant than durian because the population of viable cells within the well treated with jackfruit concentration was significantly higher compared to the durian wells.