

Abstract

Mathematical models for prediction of temperatures and rates of mass loss of horticultural product require information about the thermophysical properties of the product. Currently, there is limited data available concerning the thermal conductivities of many horticultural products. As part of a larger program looking to improve the availability of such data, the thermal conductivities of six varieties of apples (*cv. Braeburn, Fuji, Gala, Granny Smith, Pink Lady & Red Delicious*) were measured using a rapid method; and the relationships between thermal conductivity, fruit temperature, density, moisture content and sample preparation method were investigated. [Due measured thermal conductivities of the cultivars were significant], different. A positive correlation between fruit density and thermal conductivity was observed; however, there was no obvious relationship between moisture content and thermal conductivity. Homogenized samples were also found to have a significantly hi.-hr thermal conductivity than whole fruit; which was likely to be a result of reduced air fractions in homogenized samples