

**[4-1015-D]Food Quality (1)**

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## **[4-1015-D-07]Quality Changes During Ripening of Mango (*Mangifera indica* L. ‘ Nam Dok Mai’ ) under Different Temperature Conditions**

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Keywords:accumulated respiration, climacteric rise, chilling injury, sucrose contents, hardness

The purpose of this study was to clarify the influence of storage temperature on the relationship between the accumulated respiration and the quality change during the ripening of unripe (green) mango fruits (*Mangifera indica* L. ‘ Nam Dok Mai’ ). Unripe mango fruits were placed in an incubator at 10 ° C and 25 ° C to measure respiration rate and quality changes for 6 days. Postharvest ripening of unripe mango fruits was observed as changes in fruit firmness, peel color, brix, acidity, citric acid content, and sugar content under the storage conditions. The respiration rate of mango fruits stored at 25 ° C gradually increased from day 2 with a peak of climacteric rise on day 5, while climacteric rise for fruits stored at 10 ° C was not observed. It was confirmed from the respiration rate that post-ripening was not promoted at 10 ° C. The hardness, peel color, sucrose content and citric acid content of the fruit stored at 25 ° C decreased rapidly after day 2, while there was almost no change in the fruit stored at 10 ° C for 6 days. The accumulated respiration the fruit stored at 25 ° C for two days was equivalent to the fruit stored at 10 ° C for 6 days, both showing the same value in all quality indicators measured in this study.