Abstract

There are variations in the ripeness in bananas marketed commercially, which is usually unacceptable to the trade. Bananas are harvested according to their maturity. The stage of maturity depends on the variety and partly on the duration of the required postharvest life. Fruits for distant markets are harvested immature and shipped green. Harvesting earlier than normal had previously been shown to increase the green life by three to five days but the yield was up to 10% less. Good quality of fruit can be obtained when they are harvested at the proper stage of maturity. Therefore, experiments were carried out to investigate the effect of stage of harvest maturity and position of hands on the ripening behavior and quality of banana fruit. Results showed that speed of ripening was independent of harvest maturity at the ripening temperature of 16°C but that it was reduced at 13°C for more immature fruit. Also chilling injury occurred at 13°C which reduced the acceptability of the fruit. The symptoms of chilling injury progressed as the fruit ripened and were more apparent at colour stage 6 than early colour stages. Bananas from the early stage of maturity and from lower hands showed increased levels of chilling injury symptoms. Early harvesting and lower hands produced poor quality ripe fruit in terms of the total soluble solids and eating quality. Therefore the variation in the quality of ripe fruit on a commercial scale could be due to the difference of harvest maturity stage and position of hands. In the area where the fruit in the present experiments were harvested (the Caribbean islands) it was found that the optimum harvest time was at the most advanced stage of maturity that is 14 weeks after flower emergence.