

Introduction

Anna apple (Malus domestica Borkh.) is one of deciduous trees that introduced by Royal Project for the opium poppy displacement. The Anna apple is a cross between Golden Delicious and a local Jordan Valley variety, Adassia Red. It requires cross pollination and usually Ein Shemer 28 is used (Ruck, 1975). Both Anna and Ein Shemer has shown good adaptation to conditions in some high land areas of the Northern Thailand. It needs 300-400 hours for chilling requirement, the temperature below 45°F (Punsri, 1982).

The full bloom date is about February and the fruits are harvested about June. The shelf life of fruits are not more than 2 weeks (Punsri, 1982). If picked prematurely, fruits are likely to be small, poorly color, sour, tough and off-flavor. On the other hand, over ripe fruits will give low dessert quality and if the fruits are still on the tree may be disturbed by insects and birds.

To maintain dessert quality, storage capacity and commercial value it is highly important that fruits must be picked at the proper stage of maturity. So it is the objective of this research to investigate the parameters to be useful as harvesting indices.

To assess the parameters, growth pattern in weight, volume, width and length of fruit will be recorded and the physical and chemical change during growth are investigated. Physical, chemical and dessert flavor are also evaluated after each harvest.