

Abstract

The factors that induce appearance of blue and green mold in citrus are studied. A methodology was developed that allowed to characterize the aggressiveness of harvesting (skin damages, impact level, rind oil release test), and the characteristics of the fruit itself (colour, maturity,..), The determination of the impact level was made by means of an electronic fruit that allowed obtaining average impact values during harvesting, Experiments in field conditions during two seasons for different species and varieties of citrus were carried out (*Citrus reticulata* Blanco “Marisol”, *Citrus reticulata* Blanco “Clemenules”, *Citrus reticulata* Blanco “Fortune”, *Citrus sinensis* (L.) Osbeck “Valencia Late”). Initially different logistic models were obtained that allowed to select the variables that better described the aggressiveness in harvesting. In the second season the methodology improved by increasing the number of samples, allowing to obtain different relations which relate the damage during harvesting with the percentage of rotten fruits. The results of the second season allowed to develop a first decision tool system. This tool will allow to reduce the damage during harvesting and so reduce the presence of rots by *Penicillium* in postharvest.