

# CHAPTER 1

## INTRODUCTION

Longan (*Dimocarpus longan* Lour.) is an economical and important exported fruit of Thailand which is mostly produced in the northern Thailand. The major problems of marketability and shelf life are microbial decay and browning. The most effective practical postharvest for controlling the color change that has been used commercially is sulphur dioxide fumigation. However in recently years, it was found that the residual of sulfur in the longan fruit affect particularly some people are allergic to sulfur dioxide residue. Thun, the alternative treatment without chemical have been investigated by many researchers.

**Research Objectives:** To study effect of high carbon dioxide pressure treatments on postharvest quality changes, some chemical components and some biochemical changes in longan fruit and *Pestalotiopsis* sp. growth.

### Usefulness of the Research

The new technology of high carbon dioxide pressure treatment can be extended to use in post harvest practices of longan and prolong their storage life. In addition, the usefulness of this method can be applied to the other fruit.