

CHAPTER I



INTRODUCTION

Pineapple is a significant economic farm-plant widely grown in every parts of Thailand. Thailand is also one of the largest exporter of pineapple fruits and pineapple products of the world. Recently, pineapple wine which is one of the new pineapple products is increasingly introduced to exporting market. However, an expansion of exporting market for pineapple wine is relatively slow, probably due to low flavor quality of the wine. Pineapple fruit could be a good raw material for wine production because its juice has unique flavor, sufficient sugars, acids, nitrogen source, vitamins and minerals which could support the growth of yeasts during fermentation without adding yeast nutrients which is similar to the nature of grape juice. Grape is known as the raw material used for producing the world best wine. Therefore, to improve pineapple wine and the other fruits wine quality, imitation of innovation methodologies for grape wine production could be an alternative, such as using of species specific culture or mixed culture fermentation. The study of yeasts in a true ecology of pineapple fruits and fresh crushed pineapple juice fermentation will provide fundamental knowledge of autochthonous yeasts associated with pineapple wine fermentation. These yeasts could be selected and developed to be species specific starter cultures by investigating their function in fermentations and their roles in pineapple wine flavors.

Pineapple wine, making from inoculated fermentation process using commercial starter culture, is relatively low quality in terms of flavor. Species specific

starter cultures and/or a mixing of these starter cultures could be an alternative for improving the flavor quality. Therefore, information about autochthonous yeasts associated with pineapple juice fermentations must be investigated to understand their roles in the fermentations, and their volatile compound production in pineapple wine.