

### Abstract:

Mangoes (*Mangifera indica* L.) are grown throughout several parts of the world, but more than three-quarters of the world's production is in the Asian region. Most mangoes are consumed fresh due to their attractive flavor, taste, aroma and texture. There are many processed mango products available in the world market, such as canned mango slice in syrup, mango juice and nectar, mango jam and chutney, dehydrated mango, mango leather etc. Using mango as ingredients in processed food products has been developed to enhance flavor and aroma to serve consumers' tastes. Development of processed mango products in Thailand is quite unique. Both green (unripe) and yellow (ripe) mangoes are commonly consumed fresh and processed into diverse products. The local cultivar 'Parro' or 'Keaw' comprises about 28% of total production in the country and both unripe and ripe stages are used for processing. Brine-pickled products have been traditionally processed from mature-green mango. The processing technology was studied, to improve quality and safety especially for shelf life, hygienic practices and additives in order to comply with international standards. Product development was tried out in various styles, such as pieces in formulated syrup, semi-dried and dried products to capture local markets. Products were also supplied to neighboring countries' markets, where eating habits are similar, with proper packaging and design. Mature-yellow (ripe) mango has been manufactured into various products, in both bulk and retail containers for export. The quality improvement of intermediate mango puree was investigated, especially major volatile compounds, after the products pass through several processes, such as blanching, homogenization and pasteurization. Flavor compounds from mango puree were studied after cross-flow microfiltration on microporous ceramic alumina membrane and subsequent concentration of permeate by reverse osmosis. The major aromatic chemical compounds, monoterpene hydrocarbons, were qualitatively and quantitatively recovered, in the pulpy microfiltration retentate. The blending mango nectar from different varieties, based on their aromatic compounds, were also studied for consumer's preferences.