##C575321 : MAJOR FOOD CHEMISTRY
KEY WORD: TRYPSIN INHIBITOR/ PLANT FOODSTUFFS
DUJRUTHAI JAVAVANJA : EFFECT OF COOKING ON THE TRYPSIN INHIBITOR ACTIVITY OF SOME PLANT FOODSTUFFS. THESIS ADVISOR : ASSO. PROF. ORANONG KANGSADALAMPAI, Ph.D. 155 pp. ISBN 974-584-518-3

The objective of this study was to determine the trypsin inhibitor activity of some plant foodstuffs and the effect of processing on the trypsin inhibitor activity. Twenty eight out of ninety three species of raw vegetable had trypsin inhibiting activity. Leguminous plants contained much higher activity than that of other species. The activity was mostly present in seed and sprout.

The destruction of trypsin inhibitor was depended on temperature, moisture content and duration of cooking as well as methods of cooking i.e. boiling, autoclaving, dry heat treatment and soaking. Trypsin inhibitor in plants were destroyed easier by autoclaving than boiling. Dry heat treatment could reduce the trypsin inhibitor activity significantly. The trypsin inhibitor activity could slightly reduced by soaking; however, there was no statistically different between trypsin inhibitor activity in 3, 6, 12, 24 and 48 hour soaked plants.

The processing of soybean products had shown that the trypsin inhibitor activity in soybean milk made from overnight soaked soybean was not significantly different from that made from soaked soybean in 80°C-water for two hours. Furthermore the trypsin inhibitor activity in soybean curds precipitated by calcium sulphate or magnesium sulphate were not statistically different. All soybean products in this study (such as soybean milk, soybean crude, tofu and curd sheet) were found to contain significantly lower level of trypsin inhibitor activity than that found in raw soybean.