CHAPTER V

CONCLUSION

In the present study, folic acid contents in various Thai foodstuffs were determined by the microbiological assay using Lactobacillus casei.

A high folic acid concentration was found in soya-bean sauce, fish sauce and fresh fruits. The mean values of total folic acid content were found to be 252.1 ng/ml (range 21.6 - 1020.0 ng/ml) in soya-bean sauce, 178.6 ng/ml (range 38.7 - 537.0 ng/ml) in fish sauce and 183.4 ng/g (range 7.9 - 389.3 ng/g) in fresh fruits. The corresponding values of free folate and conjugated folate were 89.5 ng/ml (range 1.8 - 482.4 ng/ml) and 162.6 ng/ml (range 13.8 - 537.6 ng/ml) in soya-bean sauce, 55.4 ng/ml (range 1.2 - 236.6 ng/ml) and 123.2 ng/ml (range 22.2 - 379.6 ng/ml) in fish sauce, 73.7 ng/g (range 3.5 - 206.9 ng/g) and 109.6 ng/g (range 4.4 - 338.1 ng/g) in fresh fruits respectively. The folate contents in cow's milk and canned fruit juice were lower than the above figures. The mean values of total folate content in cow's milk and canned fruit juice were 135.9 ng/ml (range 73.2 - 298.8 ng/ml) and 65.6 ng/ml (range 0 - 242.4 ng/ml) respectively. The mean values of free and conjugated folic acid contents of cow's milk were 67.1 ng/ml

(range 9.6 - 141.6 ng/ml) and 68.9 ng/ml (range 12.4 - 226.1 ng/ml respectively. The mean values of free folic acid and conjugated folic acid contents of canned fruit juice were 35.0 ng/ml (range 0 - 156.0 ng/ml) and 30.7 ng/ml (range 0 - 106.8 ng/ml) respectively.

Human milk and vinegar were found to be the poor sources of folate. The mean values of folate content in 23 human milk samples were 31.9 ng/ml (range 18.0 - 51.6 ng/ml), 15.2 ng/ml (range 2.9 - 37.7 ng/ml) and 16.8 ng/ml (range 5.8 - 33.7 ng/ml) for the total folates, free folates and conjugated folates respectively. The lowest folate content was found in vinegar samples. The mean values of folic acid content in 20 vinegar samples were found to be 7.3 ng/ml (range 2.1 - 54.5 ng/ml), 2.6 ng/ml (range 0.2 - 26.4 ng/ml) and 4.7 ng/ml (range 1.5 - 28.1 ng/ml) for total folates, free folates and conjugated folates respectively.