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KEY WORD : WORK STATION / WORK POSTURES / FATIGUE
NIRAMOL NILSANG : WORK STATION IMPROVEMENT TO REDUCE FATIGUE RESPONSE OF WORKERS IN A POULTRY PROCESS - ING PLANT. THESIS ADVISORS : CHOMPUSUKDI POOLKET, Ph.D. CHALEARMCHAI CHAIKITTIPORN, Dr.P.H., CHAIYUTH CHAVALIT - NITIKUL, Ph.D., VAJIRA SINGHAKAJEN, M.A. 109 p. ISBN 974-662-706-6

The objectives of this study were to use a biomechanical model to improve work-station height and reduce fatigue response of worker in a poultry processing plant. The study compares workers' fatigue rating score, shoulder muscle load and risk of work posture with the plant's original 125 cm work height to those with a modified 93 cm work height.

The sample group of the study included twenty-five healthy female workers with average age, weight and height of 25.1±3.6 yrs, 49.9±2.5 kg , 151.0±1.8 cm respectively. The results of this study revealed that workers' average scores of subjective general fatigue, shoulder muscle load and risk of work posture decreased significantly modification (P-value < 0.001) with the work station height.

The experimentation indicated that anthropometric data of the workers will be very useful as a design criteria for work-station improvement in order to reduce muscular fatigue. Findings suggest that, for the poultry processing studied a 93 cm work height is appropriate for workers who are between 149.2 and 152.8 cm tall. Furthermore, such workers should not have to work with horizontal reach extended beyond 31 cm.