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PORNPUN WATCHARAVITON : FACTORS RELATED TO ABNORMAL LUNG FUNCTION OF ANIMAL – FEED WORKERS. THESIS ADVISOR : CHALERMCHAI CHAIKITTIPORN, Dr.P.H., SAWANG SAENGHIRUNVATTANA, M.D., KANOKRAT SIRIPANICHGON, M.P.H., VAJIRA SINGHAKAJEN, M.A., WANTANEE PUNPRASIT, Dr.P.H., 164p. ISBN 974-663-264-7

Factors related to abnormal lung function were examined for workers in the animal – feed industry. The study method was divided into three parts. The first part was the collection of atmospheric respirable dust and total dust by using the personal sampling technique, and measurement of microbial count by using the area sampling technique. The second part was a feed – worker survey of the samples using interview forms. The interview forms consisted of four parts : general information, working history, smoking habits and respiratory symptoms. The third part was a lung function test of the samples by using a spirometer.

Factors associated with reduced lung function were accumulated respirable dust, total dust concentration, exercise and past history of respiratory illness (  $p\text{-value} < 0.05$  ). The stepwise logistic regression analysis on factors affecting abnormal lung function included 3 important variables : accumulated respirable dust, total dust concentration, and past history of respiratory illness (  $p\text{-value} < 0.05$  ). The equation was used to classify the animal – feed worker into normal and abnormal lung function categories.