Busaya Ju-ngam 2012: A Study to Improve the Humidity Control Methods for Decreasing Mold Growth Problem in the Ward. Master of Engineering (Safety Engineering), Major Field: Safety Engineering, Faculty of Engineering.
Thesis Advisor: Assistant Professor Ponkit Kritmaitree, Ph.D. 213 pages.

Spores, food source, temperature, and moisture are the critical causes for fungi growth in a hospital ward. However, the prevention of one single cause effectively arrests fungal growth. As such, the objective of the present study was to address the levels of humidity in the hospital ward as to prevent growth of fungi growth. And the result of the percent relative humidity in the patients' rooms is 82.7 percent that appropriate to fungi growth.

Relative humidity control in the patients' rooms is attainable with appropriation means of air throughout the year. Apposite air conditioning results in cooling; however moisture is not sufficiently reduced. Nevertheless, an adequate augmentation of the heat load effects a significant reduction in the relative air humidity. It can see the result of add the heat load at 2000 watt it can decrease the average percent relative humidity between 57.8 to 63.2 percent. In addition, the latent heat load is further influenced by the numbers of individuals present as well as the air flow from the exterior. Proper identification of the sources of moisture is essential in the reduction of relative air humidity within closed confines. Moreover, the water absorption of the walls significantly affects the relative humidity.

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