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Mahmood, Muhammad H.
Interdisciplinary Graduate School of Engineering Sciences, Kyushu University

Sultan, Muhammad
Interdisciplinary Graduate School of Engineering Sciences, Kyushu University

Miyazaki, Takahiko
Faculty of Engineering Sciences, Kyushu University

Koyama, Shigeru
Faculty of Engineering Sciences, Kyushu University

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STUDY ON DESICCANT AIR-CONDITIONING SYSTEM FOR AGRICULTURAL PRODUCT STORAGE IN PAKISTAN

Muhammad H. Mahmood^{1,*}, Muhammad Sultan¹, Takahiko Miyazaki², Shigeru Koyama²

¹Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan

²Faculty of Engineering Sciences, Kyushu University, Japan

*Email: mahmood@phase.cm.kyushu-u.ac.jp

Abstract: *The present study provides the basic understanding of desiccant air-conditioning (AC) system for storage of agricultural products of Pakistan. In this regard, the study provides the ideal growth zones for various agricultural products. The desiccant air-conditioning applicability has been determined for three different climatic conditions (A, B, C) in order to achieve the sensible and latent load of AC for the studied products. It is determined that desiccant wheel perform higher dehumidification under climatic condition 'A; because of the maximum ambient air relative humidity. Consequently, higher heat energy is required in climatic condition 'A' to regenerate the desiccant wheel. It has been concluded that the desiccant AC system can be effectively used for agricultural product storage in many regions of Pakistan.*