

Abstract

In this study the possibility making of particle board by using of cotton stem, wheat straw ,saw soil ,and add materials was studied in two separate stages. In the first stage , board are making of wheat straw (3 level) ,poplar string (2 level) and the other kinds of materials .In the level) and saw soil (5 level). By means , by increasing the ligno cellulose , the TS properties , water absorption (WA) in short term, MOE and internal bound of the woods will be increased .so the proportion decrease of the wheat straw than the poplar and the proportion increase of cotton than poplar respectively increase the water absorption (WA) and wood stickiness (TS). Also the experimental results show that woods with 30 percent straw and 70 percent polar with 3 percent (CACL2) are having more (MOR) and (MOE) than the other woods.While the internal bound of those woods with 3 percent (CACL2) having much amount of stickiness (3 . 4 percent) .In general, all results show that the adding materials of (CACL) with 5 percent and the mid amount proportion of straw (15 percent) than 85 percent poplar particle board is known as suitable amount for gaining the acceptable amount of (IB) and(MOR).

Key words: cotton , mechanical and physical properties ,wheat straw ,poplar ,add materials ,saw soil .



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**The Thesis Submitted to fulfill Degree of M.Sc
in the field of Wood Nad Peperri**

**Improvement of cement – bonded particleboard
properties made from cotton stalk and wheat
straw using CaCl_2 additive**

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October 2013