

OPTIMIZATION OF DIETARY FIBER EXTRACTION FROM DATE SEEDS

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ABSTRACT

The extraction conditions of dietary fiber from date seeds are optimized for the higher yield. The conditions like solvent to sample ratio, extraction and time temperature efficiency were studied. In the reference article, both the yield of dietary fiber and phenolics were increased by the acetone (50%) and water in the seed concentrate but here only the dietary fiber is studied. This work obtained the optimum condition of 1 hour C with a solvent to sample ratio of 60:1. In this work, the response surface methodology is used with three factors solvent to sample ratio, temperature (independent variables) to attain the dependent variable yield percentage (dietary fiber). Based on this study, we believe date seeds concentrates could potentially be an inexpensive source of natural dietary fiber and possibly used as a functional food ingredient.

KEYWORDS: Phenolics, Date Seeds, Dietary Fiber, Solvents & Ratio