CHEMICAL EVALUATION AND UTILIZATION OF SOME WASTES FROM CANNING INDUSTRY

BY

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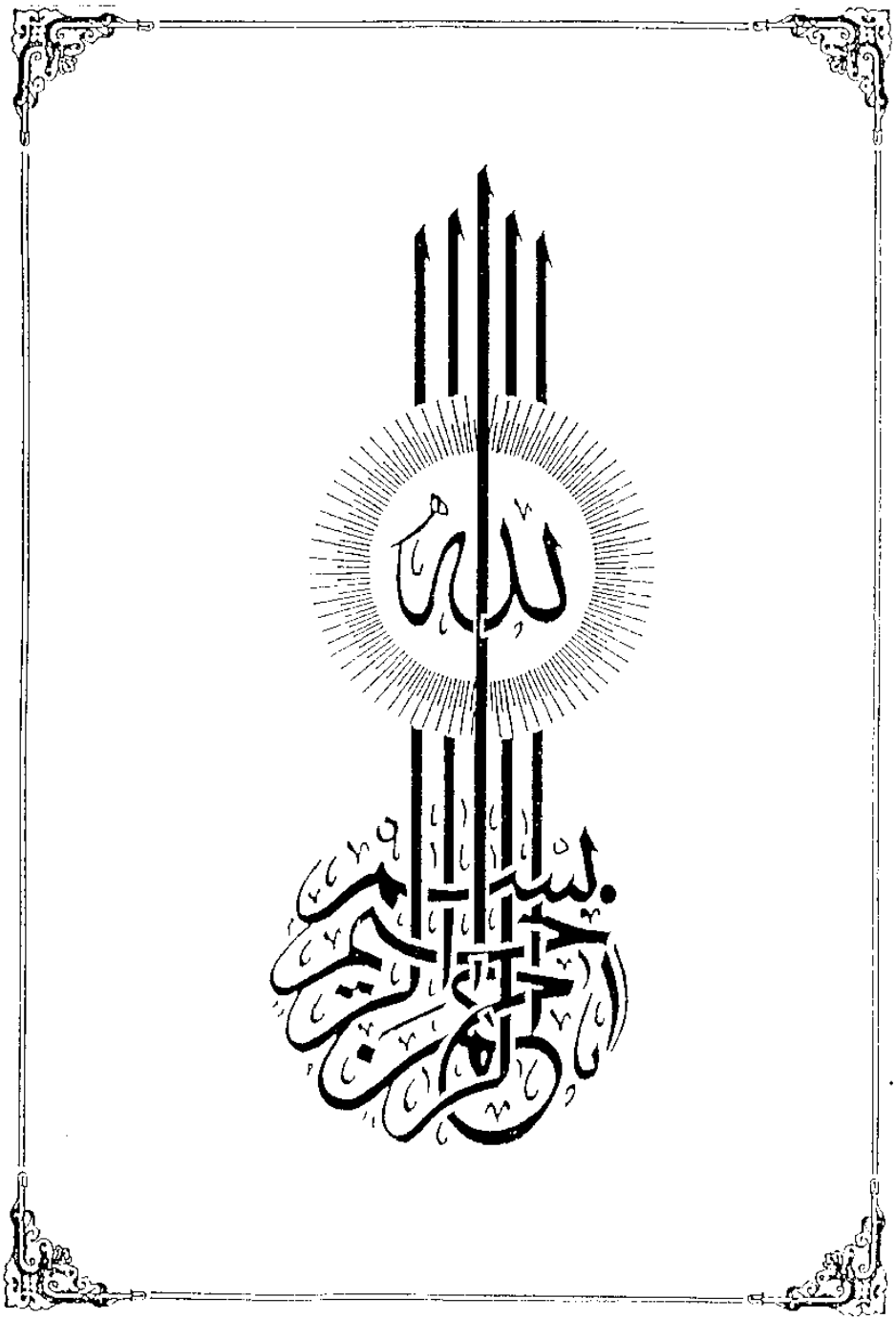

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ABSTRACT

Food canning industry yields a large amount of wastes. The wastes of 5 canned products; tomato, peas, apricot, peach and orange were studied. Chemical and microbiological analysis were carried out. The obtained results indicated that moderate percentage of canned tomato, pea, apricot, peach and orange products were [illegible] of canning [illegible].

Protein, crude lipids, carbohydrates and ash in fruit seeds were higher than that of Guava seeds. Guava seeds showed high levels of crude fibers 71.17%. Tomato and [illegible] seeds, apricot and peach [illegible] of [illegible] of [illegible].

Orange peels contained high value of total carbohydrates,about .70% The value of extracted pectin was 32% which was similar to standard pectin.

Glutamic was the major amino acid in tomato seeds, apricot and peach kernels. In guava seeds, glycine and isoleucine were the major acids. Tyrosine .tyrosine was low in tomato and guava seeds.

The saturated fatty acids of tomato and guava seeds were 27.56% and 14.6% respectively, the unsaturated fatty acids of tomato and guava seeds, apricot and peach kernels were 73.3%,86.17, 95% and 89.47% respectively.

The number of sterol fractions of tomato and guava seeds , apricot and peach kernels oils were 7,6,4 and 4 respectively

All oils extracted from tomato , guava ,seeds and apricot, peach kernels were completely free from hydrocyanic acid, HCN however guava seeds and its flour were free from HCN.

The protein contents were 44.15,17 41.56,65, and 20.74% in flours of tomato and guava seeds ,apricot and peach kernels respectively.

It was found that,the Nitrogen solubility index (NSI), Emulsion capacity (EC) and Foam capacity (FC) in all tested flours increased in acidic and alkaline phase

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CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

INTRODUCTION

The processing of many fruit and vegetable products generate waste which could contribute to environmental pollution. Although The food industry has a good record in developing by-products, improvement is possible. The possible utilization of the waste materials of any industry is of a great importance. The fruits wastes seeds of apricot, peach, plum, mango and the citrus seeds are considered a new valuable by-product which could be utilized to obtain valuable products of an economical value. In addition of the usual vegetable fats and oil seeds of stone fruits could be used as a source of oil. Therefore, the production of oil from the seeds of fruits would participate even partially in covering the shortage of edible fats and oils. The white spongy albedo of citrus fruits is a suitable raw material for pectin manufacture. citrus peel of various oranges contains 21-5% pectin. The orange peel is the best sources of pectin and it has a good quality.