

CHANGES IN CONSUMER ACCEPTANCE AND PHYSICOCHEMICAL QUALITY OF LOW FAT PIGEON PEA (*CAJANUS CAJAN*) PATTIES WITH THE ADDITION OF XANTHAN GUM

JOCEYLN N. PIERRE¹ and NEELA BADRIE²

¹Department of Agricultural Economics and Extension

²Department of Food Production

Faculty of Science and Agriculture

University of the West Indies, St. Augustine

Republic of Trinidad and Tobago, West Indies

Received for Publication January 27, 2004

ABSTRACT

The objectives of the research were to investigate the effects of adding xanthan gum on the physicochemical and sensory quality of low fat pigeon pea (*Cajanus cajan*) patties. A pretested questionnaire conducted on patty-eating consumers determined consumers' preferences and guided the formulation of pigeon pea patties. The soaked legumes were steam pressurized at 121C for 10 min. Spices/herbs were added to the mixture which was baked at 150C for 20 min. Only 50% of the respondents were influenced by nutritional content of patties. Pigeon pea patties had 13.8-14.6 g protein/100 g and 3.5-3.9 g fat/100 g. Addition of xanthan gum resulted ($P < 0.05$) in more red and softer textured products. The suitable addition of either 1.5% or 2.5% xanthan gum did not vary sensory quality ($P < 0.05$) as both products were liked slightly to neither like nor disliked in overall acceptability. When asked about purchase intent for these patties, 48.5% of consumers indicated they would probably buy them, while 16.3% would definitely buy.

INTRODUCTION

Pigeon pea (*Cajanus cajan* (L.) Millsp.) is ranked 5th in importance among edible legumes of the world (Duhan *et al.* 1999). It is an important pulse crop in India (Srivastava *et al.* 1999). In the West Indies, pigeon pea is also known

¹ To whom correspondence should be addressed: Dr. Neela Badrie, Senior lecturer, TEL: 868-662-2002 ext 3211 or 2090; FAX: 868-645-0479; EMAIL: nbadrie@yahoo.com or badrie@cariblink.net