

Review Form 1.6

Journal Name:	Asian Food Science Journal
Manuscript Number:	Ms_AFSJ_81164
Title of the Manuscript:	Synergistic effect of Lipophilic Antioxidants Extracted from Cloves (<i>Syzygium aromaticum</i>) with Vitamin E on the Stability of Cotton Seed Oil during Frying of Plantain Chips
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalafsj.com/index.php/AFSJ/editorial-policy>)

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<u>Compulsory</u> REVISION comments	<ul style="list-style-type: none"> - Abstract should be modified. No sub-headings such as methodology, study design, etc. are indicated in an abstract. - Determination of Tocopherol concentrations and changes of cotton seed oil with and without extract and powder of clove (AOCS, 1996) during frying is required. Various tocopherol isomers that act as naturally occurring antioxidants are found in cottonseed oil. Natural fat soluble tocopherol (antioxidants) can exist in at least seven forms with alpha-, beta-, delta-, and gamma-tocopherol predominating in vegetable oils. Alpha-tocopherol contributes Vitamin E actively and some oxidation resistance, but the gamma and delta forms are the most effective antioxidants (O'Brien 2005). Oxidative stability of cotton seed oil is related to the presence of tocopherols. What happens to the cotton seed oil tocopherol content without the addition of extract and powder of clove and with the addition of extract of clove under frying conditions? What is the effect of adding extract of clove in terms of loss of tocopherol or retaining of tocopherol during frying? Does the clove extract act in different way from commercial antioxidants such as butylated hydroxy anisole (BHA) and butylated hydroxy toluene (BHT)? In order to evaluate the influence of the type of oil (cotton seed oil) and the frying time on α-tocopherol, β-tocopherol, γ-tocopherol, δ-tocopherol, tocopherol, vitamin E, and vitamin E expressed as α-tocopherol, variance analysis calculations are useful. 	<p>Journals guidelines followed</p> <p>Noted and effected</p>
<u>Minor</u> REVISION comments	Smoke point is one of the parameters that define oil quality under frying conditions. The author(s) may wish to determine it. Also, to improve the quality of paper, the author(s) may wish to refer to the work of Farag et al (1989) which examined the ability of clove to protect cotton seed oil from oxidation under frying conditions.	Noted
<u>Optional/General</u> comments	This is a good work and the author(s) should be encouraged to revise the manuscript to improve its quality before publication. For example, author(s) may update the literature review to highlight other approaches for improving the quality of cotton seed oil besides using additives. Here, it seems rational to recommend cotton breeding (genetic improvement). In comparison with ordinary cultural practices adopted by cotton producers in rural areas, hybrid between cultivated species and wild species improves cotton seed oil quality. The work of Joshi (1995) reported that the objectives of cotton breeding include the increase of polyunsaturated fatty acid and tocopherol contents in cotton seed oil	OK

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	