

Review Form 1.7

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_110394
Title of the Manuscript:	Role of natural preservatives and their effect on human health
Type of the Article	Review Article

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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)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. The manuscript has introduced the type or class of preservatives, function of preservatives, significance of natural preservatives like polyphenol and the other bioactive compounds. The factors contributed to limited shelf-life and the application of natural preservatives are also discussed. 2. The title is appropriate and easily understandable. 3. For the abstract part, it is good that the authors point out the difference between synthetic and natural preservatives, as well as their pros and cons. <ul style="list-style-type: none"> • Word of 'power' is found, please check is it a typo (power or powder) and please think of alternative word for 'conserved' in the same sentence. • There are some suggestions for the abstract: <ul style="list-style-type: none"> ○ Can consider highlight that the synthetic preservatives that permitted to apply in the food industries are 'Generally Recognized as Safe' (GRAS) and their usage should comply with the limit set by the respective authorities or countries. ○ Can provide some examples of health-related issue for the excessive consumption of synthetic preservative (such as headache etc.). 4. Some subsections should be restructured. Some suggestions are as follow to improve the story flow: <ul style="list-style-type: none"> • The content is started with introduction, following by the subsections of 'Factors Influencing Postharvest Spoilage by: Moisture Activity', 'Factors Influencing Postharvest Spoilage by: Oxidation Activity', 'Factors Influencing Postharvest Spoilage by: Antioxidants', 'Preservative classification' and 'Functions of Preservatives'. These subsections should come first as they are the general information or the background information that led to the need of preservatives. • Please remove the subtitles of 'Factors Influencing Postharvest Spoilage by: Moisture Activity', 'Factors Influencing Postharvest Spoilage by: Oxidation Activity', 'Factors Influencing Postharvest Spoilage by: Antioxidants'. Combine these three subsections under a subtitle called 'Factors Influencing Shelf-life of Food'. • Please remove the word 'postharvest' as it is only used to refer the fresh produce like vegetables and fruits. Just state 'food spoilage' instead of 'postharvest spoilage'. • After that, the content is narrowed down to 'Plant based preservative', 'polyphenols', 'other bioactive compounds' and finally 'examples of some preservatives added for food preservation'. These subsections are the climax of the content which directly answer the title of this paper (What is the role/application of natural preservative? What is the impact of these natural preservatives on the human health? Be it positive or negative impact) <ul style="list-style-type: none"> ○ Please use a more appropriate subtitle for these subsections (eg, 'Natural Preservatives: Mechanisms of Actions, Application in Food and Health Impact'). Under this section, elaborate the subsections of 'Plant based preservative', 'polyphenols', 'other bioactive compounds' and finally 'examples of some natural preservatives added for food preservation'. 5. Some incorrect points are pinpointed as follow: <ul style="list-style-type: none"> • Under the sections of 'Preservative classification', 'glutamates' is listed as one of the preservatives, which is not true. In fact, monosodium glutamates is not defined as a food preservative since it does not contribute to shelf-life extension of a food product. Instead, it is a food additive under the category called as flavour enhancer. • In Figure 1, TBHQ, Propyl gallate, BHA are not natural preservatives. Please relabel the arrow. • The statement of 'Natural food preservatives are completely safe' should be supported by relevant research findings. If no relevant findings can support the sentence, please do not 	

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	<p>expressed the point of view that all naturally-derived sources are ‘completely’ safe. Bear in mind some herbs should not be used or taken in an excessive amount.</p> <p>6. The references are acceptable. However, the format should be revised by checking the alphabet (upper or lowercase) and consistent spacing.</p> <p>Overall, there are some suggestions to be considered:</p> <ul style="list-style-type: none"> • From the title, there are two major scopes need to be studied by the authors, which are the roles of natural preservative in the food application and the health impacts caused by the natural preservative (both good or bad health impacts). <ul style="list-style-type: none"> ○ As to support the title of this article, the effects of natural preservatives on human health (whether positive or negative effects) could be elaborated. For example, essential oils, edible oils, spices and herbs have their respective benefits to human health. Please add some reviews on how they contribute to the human health, if any, what is the concentration to yield the particular health benefit. ○ Besides, the authors can highlight the concern or possible issues when using the natural preservative. This is because some of them may pose critical health issue like food allergy, for example certain herbs and chitosan (which is derived from seafood). Please support the sentences by more reviews or references. • The authors only state that ‘The use of synthetic antioxidants is generally restricted due to the possibility of cancer-causing effect’. The drawbacks or side effects of taking synthetic preservatives that related to the human health should be highlighted with more examples, so that the readers can have a better judgement. Apart from cancer-causing potential, how the synthetic ones like sulfites and benzoates harm our health, such as causing dizziness, headache or breathing difficulty? • For table 1, please consider to state the type of food products samples being tested. Recommend not mixing the preservative effects and effects on human health together, for eg: decrease in LDL level is effect on health whereas inhibit bacteria is preservative effect. • In conclusion, the authors have given the point of view that natural preservatives are healthier than the synthetic ones. Bear in mind natural preservatives are healthier if only if they are used properly in a moderate amount. Likewise, excessive use of sugar or salt as the preservatives causes health issues (diabetes, hypertension). 	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language is overall acceptable, but can be improved in term of fluency, typo and grammar.</p>	
<p>Optional/General comments</p>	<ul style="list-style-type: none"> • Consistent use of phrases <ul style="list-style-type: none"> ○ ‘shelf life’ or ‘shelf-life’ or ‘shelf lives’, please choose one. ○ ‘degree Celsius’ or ‘°C’, please choose one. • Make sure the scientific names are in italic form, like <i>E. coli</i>, <i>A. indica</i>. • Do not capitalize the in-text phrase unless it is necessary • Check the format of subtitle. Is it all words capitalized? or only the first alphabet of word is capitalized? Make it consistent. • Any abbreviation stated in the table should be explained in footnote below the table, for eg: TBARS • There is a word ‘leve’ in table 1, please check if it is a typo. • Antimicrobia is a typo. Use antimicrobial. • For the sections of preservatives added for food preservation like salt, sugar, vinegar, spices etc, the authors have discussed the role, mechanism of actions to inhibit microbial growth and their application in food. It is recommended the authors to elaborate on the effects on the human health for each of them, if possible. • EO stands for edible oil or essential oil? Please abbreviate properly. • To recheck and find a suitable term for “more natural” in the conclusion section. 	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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