

Review of: "[Mini Review] Role of Mango in Immune System"

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Potential competing interests: No potential competing interests to declare.

The mini review "Role of mango in the immune system" offers an interesting perspective on the uses of mango as part of a healthy human diet with benefits for different functions, including immunity. Therefore, the article is useful and attractive for a wide audience, including students, academics, researchers, and the industrial sector. The information provided is valid.

Anyway, I recommend that the authors take into consideration the following constructive suggestions when updating the manuscript:

- To define, since the Abstract, the scope of the work — that is, if it will be focused only on the fruit or if it will include other parts of the plant with proved effects on the immune system (e.g., stem and leaves).
- To introduce in the manuscript terms that highlight the article's intention, such as "functional foods," "nutraceuticals," or specifically, "immunocuticals," and "immunonutrition." Therefore, in addition to "motivate readers to eat more mangoes to reap the benefits of a stronger immune system," I also suggest including in the abstract and body of the manuscript the "motivation for both the food and pharmaceutical industries."
- The recommendation "consuming mango pulp can be a healthy addition to a balanced diet for those looking to limit their fat intake," made in section 2.3, should be treated cautiously because depending on the ingested amount, carbohydrates would be derived into fats.
- It is necessary to define in Table 1 the degree of fruit maturation and if the analytical composition refers to dried or humid bases.
- I suggest introducing in section 3, Basics of Immune Health, the "mucosa-associated lymphoid tissue" (MALT), taking into account that mango is consumed orally and the effects on the immune system are driven by the first interaction of mango metabolites with cells of the gut-associated lymphoid tissue. It is also interesting to mention the important role of the microbiome in immune homeostasis, an aspect referred to by authors in the Conclusions.
- In the same section, it is important to note that effector mechanisms of adaptive immunity not only involve antibodies tailored against particular agents, but also cell effectors, such as CD8+ cytotoxic lymphocytes.
- At the beginning of the section "Mango and Immune System Interaction," authors said: "Research suggests that mango may include several bioactive compounds that support immune system health. Antioxidants and anti-inflammatory medications are among the chemicals that can support the immune system's defences and combat oxidative stress, both of which are advantageous to immunological health." With respect to oxidative stress, it is better to say "modulate" because a microenvironment with "good ROS" is required for different immunological mechanisms, including

phagocytosis of pathogens by macrophages and neutrophils.

- The section “Mango and Immune System Interaction,” the main topic of the manuscript, could be enriched with the incorporation of references related to works carried out on the nutraceutical properties of mango fruit, and, at authors’ convenience, with cell and molecular findings of immune effects of mango extracts (e.g., VIMANG developed by Cuban scientists) and individual components identified in other parts of the plant but also present in the fruit (e.g., polyphenols). The conclusion “Mangoes can unquestionably improve immune function when included in a balanced, healthy lifestyle” should be categorically supported in the text.
- Although the section 4, Recipes and Mango-Based Processed Foods for Immune Health, is not supported by ethnomedical, clinical, or epidemiological studies, it would be interesting for a wide audience. I suggest addressing this content as “potential applications or uses both in house or in industrially processed foods, including the local valorisation of mangoes’ crops” or similar.

I enjoyed reading the review, and I encourage other persons interested in the intersection of areas related to health and nutrition to read it. The article opens interesting horizons for the knowledge and application of this popular fruit in the tropics.

Congratulations!!!

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