

Review of: "Tomatoes Unveiled: A Comprehensive Exploration from Cultivation to Culinary and Nutritional Significance"

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Potential competing interests: No potential competing interests to declare.

Review of Qeios: Sattar et al (2024): Tomatoes Unveiled: A comprehensive exploration from cultivation to culinary and nutritional significance

Abstract may be further simplified, especially on the authors' insights of the benefits of tomato in health, food processing, agricultural research, biotechnology, and beverage sectors. There are too many details indicated in this part of the manuscript, considering that this is an abstract of a manuscript.

Tone of the manuscript is suggested to be more technical leaning. For example, "As a proud member of the Solanaceae family, alongside other commercially significant species, the tomato transcends geographical boundaries, being cultivated globally for local consumption and as an essential export crop (Poojitha, M, 2023) (Introduction, page 2), "However, the tomato's significance extends beyond its palatable contributions to meals. Boasting a water content ranging from 93-95%, tomatoes emerge not only as flavorful additions but also as hydrating and nutritionally dense components" (Introduction, page 3), and "In essence, the tomato transforms from a botanical entity to a nutritional powerhouse, embodying both culinary delight and healthful attributes (Yong et al., 2023). (introduction, page 3) may be re-written to be a more technical tone.

Various words utilized throughout the manuscript denote a flowery tone.

Page 2 (Section I: Introduction): Please insert a space between "as" and "Solanum lycopersicum."

Section 2 (page 3): Please place Table 1 near the paragraph that first describes it.

As the table also indicates that tomatoes are rich in B-carotene (9942 ug/100 g tomato), an additional write-up on this metabolite can be further added aside from the discussion on lycopene (8002 ug/100g tomato).

Expand on the sentence and other insights on "Lycopene serves as a potent radical scavenger, providing protection against cellular oxidative damage in humans (Caseiro et al., 2020)." (page 3). What health (clinical, chemical, molecular, cellular, etc.) benefits does the radical scavenging activity of lycopene positively provide to humans (and even animals)?

Expand on the sentence and other insights on: Notably, whole tomato fruit has been reported to offer superior protective and antioxidant properties compared to standalone lycopene supplementation (Gholami et al., 2021). (page 3). Provide

more examples and insights.

The discussion on the health benefits of sofrito (pages 3 to 4) may be shortened as the article's main focus is on tomatoes.

Figures 1a and 1b, which were referred to on page 4, are not included in the text.

Please extend the insights on the health benefits of chlorogenic acid and gallic acid (page 5).

Please concise the introduction part of Section 3.1 (Food Processing) (page 6) and utilize a more technical-leaning tone.

Expand the enumerated thoughts for Section 3.2 (Agricultural Research) (page 7), Section 3.3 (Biotechnology Industry; e.g., what pharmaceuticals and industrial enzymes are grown through tomatoes (page 8)), Section 3.4 (Beverage Industry) (cite other beverages that utilize tomatoes other than the Bloody Mary), and Section 3.5 (Pharmaceutical Industry) (page 8, e.g., Provide a deeper developed composition of what other important pharmaceuticals/phytochemicals are obtained from tomatoes). Please provide more/deeper examples for each thought/insight introduced.

Connect the enumeration of the detailed description of tomato seed oil (pages 10-11) to the overall tone/subject of this manuscript. How is such a part important to the overall schema of this manuscript?

Expand on the perspectives of tomato in agricultural, biotechnological, beverage, and pharmaceutical use and on the utilization of tomato waste (Section 5: Conclusions and Future Aspects, pages 10-11). Please expand each section further by providing more concrete examples and perspectives. What about tomato seed oil?