Review of: "Evaluation of Chemical Content and Phytochemical Composition of Yemeni Almond Cultivars"

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Potential competing interests: No potential competing interests to declare.

Article **“Evaluation of Chemical Content and Phytochemical Composition of Yemeni Almond Cultivars”**

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This study aimed to characterize the phenotypic traits and estimate the chemical composition of the most famous cultivars' seeds of Yemeni almonds.

Comments:

1. However, first of all, the English language of the article should be significantly revised.

The text of the Introduction section is written very superficially. For example, as two sentences containing the same information: “The seeds of the almond plant are one of the nuts, which are a source of high nutritional value, whether for macronutrients (protein, fat, and carbohydrates) or micronutrients (minerals and vitamins), in addition to other vital compounds such as secondary metabolites, including phenolic acids, flavonoids, tannins, and alkaloids (Moshfegh et al., 2007; Lichtenstein et al, 2006; Sabate et al, 2006; Cesarettin et al, 2009). Almonds Prunusdulcis have great health and nutritional benefits, as they are a source of protein, polyunsaturated fatty acids, fiber, vitamin E, riboflavin, and essential minerals, in addition to phytosterols and polyphenols (Sylvia et al, 2013).”

It is not at all clear what the author prepared to say in this sentence: “The seeds of the almond plant are one of the nuts that are a source of high”, and etc.

The chemical composition of almonds should be described in more detail in the Introduction.

The author states that almonds grown in Yemen have a richer chemical composition, but does not provide any scientific research data to prove these claims.

2. The Materials and Methods section has to be improved.

A clearer description of the entire process of almond seed sample collection and preparation is needed because such a description is not at all clear: “They were kept in sterile polyethylene bags, then transported to the laboratory, peeled, and kept in sterile polyethylene bags at 4 °C until use, and it was transported to laboratories and preserved in the same way for chemical analysis. Almond seed samples were ground and preserved in sterile polyethylene vacuum-sealed bags in

the dark at 4°C and used for analysis on the same day."

In the section "Estimation of the chemical composition of almond seed samples," standard method names such as Kjeldahl, Soxhlet, Folin-Ciocalteu, and etc., have to be corrected: "The almond seed content of moisture, protein (Keldahl method), total fat (Sacholite method), and ash were estimated the Association of Official Analytical Chemists AOAC methods."

Not-standard methods, e.g., analyses of total phenolic content, and total flavonoids, must be described in a way that can be replicated.

What does "vortexed" mean?

It is not specified how many replicates of the chemical analysis were done.

3. It is necessary to indicate whether the chemical analysis results were obtained in dry matter (DM) or fresh weight (FW) of samples.

Two decimal places are necessary but sufficient when reporting results in mg 100 g-1 (Table 3, Table 4).

Why were no significant differences in data reported if they were assessed? Why were no standard deviations presented in Tables 3 and 4?

The abbreviation for rutin equivalent is RE, as is GAE for gallic acid.

Cluster analysis for chemical content is not mentioned in the Statistical Analysis section.

The conclusions need to be corrected because they do not match the title of your article.