

REVIEWER'S REPORT

Manuscript No.: IJAR-58972

Title: Comprehensive Nutritional, Phytochemical and GC-MS Profiling of Fresh and Dried Chickpea (*Cicer arietinum* L.) Microgreens.

Recommendation:

Accept as it is ☐☐☐☐☐

Accept after minor revision ☐☐☒☐☐

Accept after major revision ☐☐☐☐☐

Do not accept (*Reasons below*) ☐☐☐

Rating	Excel.	Good	Fair	Poor
Originality		√		
Techn. Quality			√	
Clarity			√	
Significance		√		

Reviewer ID: JP085

Reviewer's Comment for Publication.

This manuscript presents a useful study on the nutritional, phytochemical and GC-MS profile of fresh and dried chickpea microgreens. The study compares fresh and dried samples and reports proximate composition, vitamins, minerals, phytochemicals and GC-MS constituents. The topic is relevant for functional food research. However, several methodological details, GC-MS identification issues, data presentation and scientific claims need improvement.

Strength:

1. The topic is relevant and interesting.
2. Fresh and dried microgreens are compared.
3. Nutritional parameters are studied in detail.
4. Protein, fibre, fat, ash and moisture are reported.
5. Vitamin and mineral profiles are included.
6. Different phytochemicals are quantitatively estimated.
7. GC-MS analysis provides additional chemical information.
8. Three laboratory replicates were used.

Weakness:

1. Important methodological details are missing, such as exact cultivation conditions, light intensity, temperature, humidity and irrigation schedule.
2. The drying time is inconsistent. The Methods state 3 h 30 min, while the Results mention 5 h 30 min.
3. No proper statistical comparison between fresh and dried samples is given.
4. Only three samples/replicates were tested.
5. Exact methods for vitamin analysis are not explained.
6. Antioxidant and antimicrobial activities were not directly tested.
7. Some biological activities are based only on literature reports.

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Overall assessment:

The manuscript has a good and relevant research topic and provides useful preliminary information on chickpea microgreens. However, the study needs improvement in experimental methodology, GC–MS validation, statistical analysis, data interpretation, drying-time consistency, safety evaluation and scientific language.

Recommendation: Manuscript accepted for publication after minor revision.