Protein content and amino acids profile in 10 cultivars of ginkgo (Ginkgo biloba L.) nut from China

Mengyi Zhou, Tongtong Hua, Xiaofang Ma, Haijun Sun and Li Xu

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Original submission: 9 October 2018
Revised submission: 18 February 2019
Final acceptance: 18 February 2019

Note: Reports are unedited and appear as submitted by the referee. The review history appears in chronological order.

Review History

RSOS-181571.R0 (Original submission)

Review form: Reviewer 1

Is the manuscript scientifically sound in its present form?
Yes

Are the interpretations and conclusions justified by the results?
Yes

Is the language acceptable?
Yes

Is it clear how to access all supporting data?
Yes

Do you have any ethical concerns with this paper?
No
Have you any concerns about statistical analyses in this paper?
I do not feel qualified to assess the statistics

Recommendation?
Accept with minor revision (please list in comments)

Comments to the Author(s)
The article (Manuscript ID RSOS-181571) on “Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China” is relevant to publication in Royal Society Open Science after minor correction.

Submitted for review work on “Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China” in an interesting and substantively as well as statistically correct way describes the amino acid composition of ginkgo biloba nuts, their nutritional value, and compares the content of individual amino acids as well as amino acid groups in the amino acid profile of nuts of 10 tested ginkgo biloba varieties. The research material, the methodology of the conducted research, and the presentation of the results do not raise objections of the reviewer. However, in the Introduction part of the article there is a lack of broader information regarding the research conducted so far by other authors in the analysis of the amino acid composition of ginkgo biloba nuts and their nutritional value. Also, some more details in a discussion should be added. The work has a high cognitive value.

Detailed comments:
Title: Probably a sentence of “Insert the title of your article here” is not necessary?
Page 2, line 44: “amino acids” is repeated
Page 3, line 2: there is a mistake in a word “degradation”
Results and Discussion
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Page 4, line 5: there is “Pre” but shall be “Pro”
There are errors in the spelling of the word "table":
    Page 7, lines 2, 18
    Page 8, line 2

Review form: Reviewer 2

Is the manuscript scientifically sound in its present form?  
Yes

Are the interpretations and conclusions justified by the results?  
Yes

Is the language acceptable?  
Yes

Is it clear how to access all supporting data?  
Not Applicable

Do you have any ethical concerns with this paper?  
No
Have you any concerns about statistical analyses in this paper?
No

Recommendation?
Accept with minor revision (please list in comments)

Comments to the Author(s)
This manuscript describes protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China. The manuscript will be acceptable after minor revision.

Page 1, Summary and throughout the whole manuscript, including Table 2, all the analytical data should be given the three significant figures, e.g. 22.13 should be 22.1.
Page 2, section 3.1. Samples and sample preparation
How many fruits and/or what amounts of fruits were sampled from how many plants of each cultivar should be given.
Page 3, section 4. Results and Discussion
The authors have not given any explanation/discussion as to why there is difference in the amino acid and protein contents of different cultivars of the plant? It will be useful to correlate the variations in amino acids with soil parameters (composition), climatic conditions, rain fall, temperature, pH, fertilizers used and so on.

Decision letter (RSOS-181571.R0)

11-Feb-2019

Dear Dr Zhou

On behalf of the Editors, I am pleased to inform you that your Manuscript RSOS-181571 entitled "Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China" has been accepted for publication in Royal Society Open Science subject to minor revision in accordance with the referee suggestions. Please find the referees' comments at the end of this email.

The reviewers and handling editors have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, I invite you to respond to the comments and revise your manuscript.

• Ethics statement
If your study uses humans or animals please include details of the ethical approval received, including the name of the committee that granted approval. For human studies please also detail whether informed consent was obtained. For field studies on animals please include details of all permissions, licences and/or approvals granted to carry out the fieldwork.

• Data accessibility
It is a condition of publication that all supporting data are made available either as supplementary information or preferably in a suitable permanent repository. The data accessibility section should state where the article's supporting data can be accessed. This section should also include details, where possible of where to access other relevant research materials such as statistical tools, protocols, software etc can be accessed. If the data has been deposited in an external repository this section should list the database, accession number and link to the DOI for all data from the article that has been made publicly available. Data sets that have been
deposited in an external repository and have a DOI should also be appropriately cited in the manuscript and included in the reference list.

If you wish to submit your supporting data or code to Dryad (http://datadryad.org/), or modify your current submission to dryad, please use the following link:
http://datadryad.org/submit?journalID=RSOS&manu=RSOS-181571

• Competing interests
Please declare any financial or non-financial competing interests, or state that you have no competing interests.

• Authors’ contributions
All submissions, other than those with a single author, must include an Authors’ Contributions section which individually lists the specific contribution of each author. The list of Authors should meet all of the following criteria; 1) substantial contributions to conception and design, or acquisition of data, or analysis and interpretation of data; 2) drafting the article or revising it critically for important intellectual content; and 3) final approval of the version to be published.

All contributors who do not meet all of these criteria should be included in the acknowledgements.

We suggest the following format:
AB carried out the molecular lab work, participated in data analysis, carried out sequence alignments, participated in the design of the study and drafted the manuscript; CD carried out the statistical analyses; EF collected field data; GH conceived of the study, designed the study, coordinated the study and helped draft the manuscript. All authors gave final approval for publication.

• Acknowledgements
Please acknowledge anyone who contributed to the study but did not meet the authorship criteria.

• Funding statement
Please list the source of funding for each author.

Please ensure you have prepared your revision in accordance with the guidance at https://royalsociety.org/journals/authors/author-guidelines/ -- please note that we cannot publish your manuscript without the end statements. We have included a screenshot example of the end statements for reference. If you feel that a given heading is not relevant to your paper, please nevertheless include the heading and explicitly state that it is not relevant to your work.

Because the schedule for publication is very tight, it is a condition of publication that you submit the revised version of your manuscript before 20-Feb-2019. Please note that the revision deadline will expire at 00.00am on this date. If you do not think you will be able to meet this date please let me know immediately.

To revise your manuscript, log into https://mc.manuscriptcentral.com/rsos and enter your Author Centre, where you will find your manuscript title listed under "Manuscripts with Decisions". Under "Actions," click on "Create a Revision." You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript and upload a new version through your Author Centre.

When submitting your revised manuscript, you will be able to respond to the comments made by
the referees and upload a file "Response to Referees" in "Section 6 - File Upload". You can use this to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the referees. We strongly recommend uploading two versions of your revised manuscript:

1) Identifying all the changes that have been made (for instance, in coloured highlight, in bold text, or tracked changes);
2) A 'clean' version of the new manuscript that incorporates the changes made, but does not highlight them.

When uploading your revised files please make sure that you have:

1) A text file of the manuscript (tex, txt, rtf, docx or doc), references, tables (including captions) and figure captions. Do not upload a PDF as your "Main Document";
2) A separate electronic file of each figure (EPS or print-quality PDF preferred (either format should be produced directly from original creation package), or original software format);
3) Included a 100 word media summary of your paper when requested at submission. Please ensure you have entered correct contact details (email, institution and telephone) in your user account;
4) Included the raw data to support the claims made in your paper. You can either include your data as electronic supplementary material or upload to a repository and include the relevant doi within your manuscript. Make sure it is clear in your data accessibility statement how the data can be accessed;
5) All supplementary materials accompanying an accepted article will be treated as in their final form. Note that the Royal Society will neither edit nor typeset supplementary material and it will be hosted as provided. Please ensure that the supplementary material includes the paper details where possible (authors, article title, journal name).

Supplementary files will be published alongside the paper on the journal website and posted on the online figshare repository (https://rs.figshare.com/). The heading and legend provided for each supplementary file during the submission process will be used to create the figshare page, so please ensure these are accurate and informative so that your files can be found in searches. Files on figshare will be made available approximately one week before the accompanying article so that the supplementary material can be attributed a unique DOI.

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Once again, thank you for submitting your manuscript to Royal Society Open Science and I look forward to receiving your revision. If you have any questions at all, please do not hesitate to get in touch.

Kind regards,
Royal Society Open Science Editorial Office
Associate Editor Comments to Author:
Both reviewers find merit in publishing your paper, though they have a number of recommendations for improvement. Please ensure you respond to these queries - both by incorporating the requested changes and in your point-by-point response to the reviewers. If you do not include an change, you must fully address this via a scientific rebuttal in the response.

Reviewer comments to Author:
Reviewer: 1

Comments to the Author(s)
The article (Manuscript ID RSOS-181571) on “Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China” is relevant to publication in Royal Society Open Science after minor correction.

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Results and Discussion
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Page 4 lines 7-8: a discussion needs deeper explanation
Page 4, line 5: there is “Pre” but shall be “Pro”

There are errors in the spelling of the word "table":
   Page 7, lines 2, 18
   Page 8, line 2

Reviewer: 2

Comments to the Author(s)
This manuscript describes protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China. The manuscript will be acceptable after minor revision.
Page 1, Summary and throughout the whole manuscript, including Table 2, all the analytical data should be given the three significant figures, e.g., 22.13 should be 22.1.

Page 2, section 3.1. Samples and sample preparation
How many fruits and/or what amounts of fruits were sampled from how many plants of each cultivar should be given.

Page 3, section 4. Results and Discussion
The authors have not given any explanation/discussion as to why there is difference in the amino acid and protein contents of different cultivars of the plant? It will be useful to correlate the variations in amino acids with soil parameters (composition), climatic conditions, rain fall, temperature, pH, fertilizers used and so on.

Author's Response to Decision Letter for (RSOS-181571.R0)

See Appendix A.

Decision letter (RSOS-181571.R1)

18-Feb-2019

Dear Dr Zhou,

I am pleased to inform you that your manuscript entitled "Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China" is now accepted for publication in Royal Society Open Science.

You can expect to receive a proof of your article in the near future. Please contact the editorial office (openscience_proofs@royalsociety.org and openscience@royalsociety.org) to let us know if you are likely to be away from e-mail contact. Due to rapid publication and an extremely tight schedule, if comments are not received, your paper may experience a delay in publication.

Royal Society Open Science operates under a continuous publication model (http://bit.ly/cpFAQ). Your article will be published straight into the next open issue and this will be the final version of the paper. As such, it can be cited immediately by other researchers. As the issue version of your paper will be the only version to be published I would advise you to check your proofs thoroughly as changes cannot be made once the paper is published.

On behalf of the Editors of Royal Society Open Science, we look forward to your continued contributions to the Journal.

Kind regards,
Andrew Dunn
Senior Publishing Editor
Royal Society Open Science
openscience@royalsociety.org

on behalf of Prof Kevin Padian (Subject Editor)
openscience@royalsociety.org
Appendix A

We thank the editor and reviewers for their time and comments. The comments from reviewers are highly constructive, and we have acted on them to further improve the manuscript. The detailed responses to the concerns from them are provided as follows:

Reviewer 1
The article (Manuscript ID RSOS-181571) on “Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China” is relevant to publication in Royal Society Open Science after minor correction. Submitted for review work on “Protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China” in an interesting and substantively as well as statistically correct way describes the amino acid composition of ginkgo biloba nuts, their nutritional value and compares the content of individual amino acids as well as amino acid groups in the amino acid profile of nuts of 10 tested ginkgo biloba varieties. The research material, the methodology of the conducted research and the presentation of the results do not raise objections of the reviewer. However, in the Introduction part of the article there is a lack of broader information regarding the research conducted so far by other authors in the analysis of the amino acid composition of ginkgo biloba nuts and their nutritional value. Also, some more details in a discussion should be added. The work has a high cognitive value.
Detailed comments:
Title: Probably a sentence of “Insert the title of your article here” is not necessary?
**Author response:**
We thank reviewer for the careful work. It has been deleted.

Page 2, line 44: “amino acids” is repeated
**Author response:**
It has been deleted.

Page 3, line 2: there is a mistake in a word “degradation”
**Author response:**
It has been corrected.

Results and Discussion
Page 4 line 36: what was CP content reported by Deng [18]? It needs better information.

Author response:
It has been rewritten as follows:
The CP content of ginkgo nut, on average 19.7% of dry matter, was higher than that reported by Deng et al. [18], who found that the protein content was 11.6% in defatted ginkgo flour.

Page 4 lines 7-8: a discussion needs deeper explanation

Author response:
We think the reviewer wanted to refer to “Page 4 lines 37-8”.
The reason for the difference on protein content in ginkgo seed might be due to the differences in analytical procedure and data expression. In the study by Deng et al., protein content was obtained by an alkaline dissolving and acid precipitating method, determined by the Bradford method, and the data was reported on defatted ginkgo flour. In our study, the crude protein content was determined by a Perkin-Elmer 2400 automatic element analyzer with conversion factor of 6.25, and the protein content was reported on a dry weight basis.

Page 4, line 5: there is “Pre” but shall be “Pro”
There are errors in the spelling of the word "table":
Page 7, lines 2, 18
Page 8, line 2

Author response:
We are very ashamed of these stupid mistakes. All have been corrected.

Reviewer: 2
Comments to the Author(s)
This manuscript describes protein content and amino acids profile in ten cultivars of ginkgo (Ginkgo biloba L.) nut from China. The manuscript will be acceptable after minor revision.

Page 1, Summary and throughout the whole manuscript, including Table 2, all the analytical data should be given the three significant figures, e.g. 22.13 should be 22.1.

Author response:
We thank reviewer for reminding this detail, and have corrected.

Page 2, section 3.1. Samples and sample preparation
How many fruits and/or what amounts of fruits were sampled from how many plants of each cultivar should be given.

Author response:
Approximate eighty fruits were harvested randomly from three plants of each cultivar. It has been added in Materials and Methods

Page 3, section 4. Results and Discussion
The authors have not given any explanation/discussion as to why there is difference in the amino acid and protein contents of different cultivars of the plant? It will be useful to correlate the variations in amino acids with soil parameters (composition), climatic conditions, rain fall, temperature, pH, fertilizers used and so on.

Author response:
In this paper, the ten cultivars analyzed were cultivated in Pizhou Ginkgo biloba Seedling Base under the same agronomic conditions. The only difference is the cultivar, genetic background. Indeed, there are various factors causing the difference in the amino acid and protein contents. In the next study, we plan to compare the same cultivar from different planting regions, where the correlation of the variations in protein and amino acids of ginkgo nuts with soil parameters and climatic conditions will be discussed.