Guidelines for Authors

The Journal of King Saud University (Agricultural Sciences)

This periodical is a publication of the University Libraries – King Saud University. Its purpose is to provide an opportunity for scholars to publish their scholarly works based on research. The Editorial Board, through Division Editorial Boards, will consider manuscripts from all fields of knowledge. Manuscripts can be submitted in either Arabic or English and if accepted for publication, may not be published elsewhere without the express permission of the Editor-in-Chief.

The following is the manuscript type classification used by the Editorial Board:

1) **Article**
An account of an author's work in a particular field. It should contribute new knowledge to the field in which the research was conducted.

2) **Review Article**
A critical synthesis of the current literature in a particular field or a synthesis of the literature in a particular field during an explicit period of time.

3) **Brief Article**
A short article (note) having the same characteristics as an article.

4) **Forum**
Letters to the Editor,
Comments and responses,
Preliminary results or findings, and
Miscellany/Short Communication.

5) **Book Reviews**

General Instructions

1. **Submission of Manuscripts**
A typewritten original manuscript (one side only) using A4 size paper, double spaced, along with two copies is required. All pages, including tables and other illustrations, are to be numbered consecutively. Tables, other illustrations, and references should be presented on separate sheets with their proper text position indicated.

2. **Abstracts**
Manuscripts for articles, review articles, and brief articles require that both Arabic and English abstracts, using not more than 200 words in each version, be submitted with the manuscript.

3. **Tables and other illustrations**
Tables, figures, charts, graphs and plates should be planned to fit the Journal's page size (12.5 cm × 18 cm). Line drawings are to be presented on high quality tracing paper using black India ink. Copies are not permitted for use as originals. Line quality is required to be uniform, distinct, and in proportion to the illustration. Photographs may be submitted on glossy print paper in either black and white, or color.

4. **Abbreviations**
The names of periodicals should be abbreviated in accordance with *The World List of Scientific Periodicals* where appropriate, abbreviations rather than words are to be used, e.g., cm, mm, m, km, cc, ml, g, mg, kg, min, %, Fig, etc.

5. **References**
In general, reference citations in the text are to be identified sequentially. Under the "References" heading at the end of the manuscript all references are to be presented sequentially in MLA entry form.

a) Periodical citations in the text are to be enclosed in on-line brackets, e.g., [7]. *Periodical references* are to be presented in the following form: reference number (in on-line brackets [ ]), author's surname followed by a given name and/or initials, the title of the article (in quotation marks), title of the periodical (underlined), volume, number (if available), year of publication (in parenthesis), and pages.
Example:
[7] Hicks, Granville. "Literary Horizons: Gestations of a Brain Child." Saturday Review, 45, No. 62 (1962), 2–23.

b) Book citations in the text are to be enclosed in on-line brackets including the page (s) e.g. [8, p. 16]. *Book references* are to include the following: reference number (in on-line brackets [ ]), author's surname followed by a given name and/or initials, title of the book (underlined), place of publication, publisher, and year of publication.
Example:
[8] Daiches, David. Critical Approaches to Literature. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1956.

When a citation in the text is used to refer to a previously cited reference, use the same reference number and include the appropriate page number(s) in on-line brackets.

It is not permissible to use any Latin terms as: op. cit., loc. cit., ibid., in the style described above.

6. **Content Note**
A content note is a note from the author to the reader providing clarifying information.

A content note is indicated in the text by using a half-space superscript number (e.g. ... books[3] are ...). Content notes are to be sequentially numbered throughout the text. A reference may be cited in a content note by use of a reference number (in on-line brackets [ ]) in the same way they are to be used in the text. If a reference citation in the text follows a content note citation, and if the said content note has a reference citation contained within it, then the text reference citation number used in the text follows the reference number used in the content note.

Content notes are to be presented on separate sheets. They will be printed below a solid line which separates the content notes from the text. Use the same half-space superscript number assigned to the content note(s) in the text to precede the content note itself.

7. The manuscripts and Forum items submitted to the Journal for publication contain the author's conclusions and opinions and, if published, do not constitute a conclusion or opinion of the Editorial Board.

8. **Reprint**
Authors will be provided fifty (50) reprints without charge.

9. **Correspondence**
Address correspondence to: The Division Editor as follows:
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The Effect of Nutrient Solution Conductivity on the Growth of Cucumber Plants

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Abstract. Cucumber growth responses to nutrient solution conductivity (Ec) were evaluated. Four levels of nutrient solution Ec, ranging from 1.0 to 2.5 mS cm^{-1}, were used. Plant height, stem diameter, leaf area and fresh and dry weight of different plant parts were measured. The results showed that cucumber plants can be grown in a wide range of nutrient solution Ec without affecting the plant growth and productivity. Plant water uptake and relative water content (RWC) were significantly reduced with increasing nutrient solution Ec. Plant water potential, measured 40 days after imposing the treatments, was higher for 2.5 mS cm^{-1} than 1.0 mS cm^{-1} plants. There was no significant effect for the treatments on the transpiration rate and stomatal conductance. Photosynthetic rate measured 40 days after applying the treatment, significantly increased with increasing nutrient solution Ec.

Introduction

Most of the nutrient film technique (NFT), crops are grown in a solution of electrical conductivity (Ec) ranging from 2.0 to 3.0 millisiemens (mS cm^{-1}) [1]. Steiner [2] reported that over a wide range of nutrient ratios in the nutrient solution, the mutual ratio in which the plants take ions is not influenced by the mutual ratio of these ions within the solution.

Investigators have reported different values for the optimal solution conductivity for growing cucumbers. Graves and Hurd [3] reported that the highest yield of cucumber was obtained when the solution conductivity was between 2.5 and 4.0 mS cm^{-1}. Sonneveld [4], however, found a decline in the yield of cucumber grown in rockwool as the conductivity was increased from 1.0 to 4.0 mS cm^{-1}. An Ec range of 2.0 – 2.5 mS cm^{-1} was recommended by Voogt [5] for cucumbers grown on rockwool matting with a drip-fed nutrient solution. He found that at low values there were signs of deficiencies in N and K whereas at the higher levels no increase in the crop yield was found.