

The Journal of King Saud University (Agricultural Sciences)

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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 (brief) 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 x 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., [1]. Periodical references are to be presented in the following form: reference number (in on-line brackets) [1], 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 parentheses), and pages.
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[7] Hicks, Granville "Literary Horizons: Gestations of a Brain Choir," *Saturday Review*, 45, No. 02 (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) [1], author's surname followed by a given name and/or initials, title of the book (underlined), place of publication, publisher, and year of publication.
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Influence of Salinity on the Growth and Nutrients Composition of Cucumber Plants (*Cucumis sativus*).

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Abstract. Cucumber plants (*Cucumis sativus*) were grown on NFT at four levels of salinity concentrations (2.5, 4.5, 6.5 and 8.5 mS cm⁻¹). Higher salinities were achieved by addition of NaCl. The effects of these treatments on plants growth and nutrient elements levels in roots and leaves were studied. Increasing salinity progressively reduced fresh and dry weights of roots and shoots. Results showed significant reduction on Ca and K% in the dry matter of the roots and leaves while Na%, and Cl were increased with increasing nutrient solution salinity. The reduction of growth under saline conditions could be due to the interference of Na and Cl on the metabolism in leaves or on the uptake, and transport of essential ions such as Ca and K. The plants were found to tolerate a salinity level of 4.5 mS cm⁻¹ without any significant reduction on yield.

Introduction

Crop salt tolerance is usually related with the relative reduction in yield for a given level of salt concentration compared with the yield of plants grown under non-saline conditions. Salinity in general reduces plant growth. Salt stress consists of two influences: osmotic stress, caused by the increase in the external osmotic pressure of the soil solution due to high concentration of salts, and the nutritional effect of salinity which includes specific ion toxicity and ion imbalance due to the excess of some particular ions. Growth reduction of non halophytes grown in saline nutrient solution, is often due to the effect of ion imbalance rather than the osmotic potential [1].

Ion transport in the plants is affected by salinity. The ion uptake into the whole plant involves ion uptake into the root, its transport through various organs and finally their accumulation in the leaves.