



ISSN: 2456 - 9259
PLANTICA: 3(2&3), April - July, 2019

PLANTICA

Journal of Plant Science

PLANTICA



The Official Publication of

Association of Plant Science Researchers

www.jpsr.in

PLANTICA

Journal of Plant Science

ISSN: 2456 - 9259

Vol. - 3, No. - 2 & 3

April & July, 2019

(A Quarterly Journal)



Official Publication of

Association of Plant Science Researchers
Dehradun, Uttarakhand, India

www.jpsr.in

Instruction to Authors

Association of Plant Science Researchers (APSR) invites Manuscripts for publication in the journal "PLANTICA - Journal of Plant Science" published quarterly (January, April, July, and October). This is an opportunity to publish your research, valuable work and ideas in the PLANTICA.

Send your Manuscripts by e-mail to jpsrsf@gmail.com and/or editor@jpsr.in (Send your manuscripts in both the e-mail IDs)

Submission Guidelines:

Manuscripts are invited from researchers, academicians and professionals for publication consideration in PLANTICA. The journal publishes both empirical and conceptual research.

In the subject line of your e-mail please write "PLANTICA submission"

1. Articles are accepted in MS-Word format.
2. Contributors should adhere to the Article format of the journal.
3. Electronic submission of manuscripts strongly encouraged, provided that the text, tables, and figures are included in a single Microsoft Word file.
4. Submit manuscripts as e-mail attachment to the Editor at:
jpsrsf@gmail.com and/or editor@jpsr.in

Format for Full Length Research Paper:

1. Manuscript should be submitted as per order: Title Page, Name of Author(s), Abstract, Key Words, Introduction, Material and Methods, Results and Discussion and References.
2. The title of the article should be bold, centered and typed in capital letters in a 14 point Times New Roman Font.
3. The author(s) details i.e., full name, designation, name of the organization, city, Pin, state, country, e-mail id, alternate e-mail id, contact details i.e. mobile/landline phone numbers, in 12-point Times New Roman should be centered below the title.
4. All manuscripts must be accompanied by a brief abstract. Abstract including key words must not exceed 200 words. It should be in fully justified and italicized text. It should highlight research background, methodology; major finding(s) and conclusion in brief. Authors must mention 4-6 keywords. Key words should be listed alphabetically, separated by commas, and full stop at the end.
5. Manuscripts must be no longer than 10 – 15 pages (all inclusive). It should be single spaced, Times New Roman font, 12 point. It must be clearly written without any spelling or grammatical errors.
6. All tables and figures should be incorporated into the body of the paper.
7. The authors should list all references alphabetically at end of the paper.

References:

1. It must be single spaced, and at the end of the manuscript.
2. References when used in the text enclose the citation in brackets, using author's surname, followed by comma and the year of publication, and arranged chronologically (Boyd, 1992; Kotler, 2000).
3. In case authors name is part of the text, only quote the year of publication in brackets. Wong, 1995 reported that...Kotler et al. (2007) found that....
4. References for journals, proceedings of conferences, books, website, and dissertation should follow the Harvard Referencing System.
5. The authors are advised to mention only those references actually used in their manuscript.

**Chairman-Editorial and
Advisory Board**



Prof. (Dr.) A. K. Karnatak (Ph.D.)
Vice Chancellor, VCSGU University
of Horticulture and Forestry, Bharsar,
Pauri Garhwal, Uttarakhand, India, E-
mail: a_karnatak@yahoo.co.in

Editor –in – Chief



Dr. Anoop Badoni
(M.Sc.- Ag, Ph.D., FAPSR,
MSFSN)
Associate Professor, School of
Agricultural Studies, Quantum
University, Roorkee (U.K.)
E-mail: badonianna@gmail.com
anoopbadoni.agr@quantumeduc

Managing Editor



Dr. Pooja Kaintura (M.Sc., Ph.D.)
ICAR-NET)
Assistant Professor
Doon Business School (Sri Dev
Suman University), Dehradun,
Uttarakhand India
E-mail:
poojakaintura29005@gmail.com

Editorial and Advisory Board Members



Prof. (Dr.) I. J. Gulati (Ph.D.)
Ex- Dean, Faculty Chairman &
Registrar, Rajasthan Agriculture
University, Bikaner, India, **Principal**
- Agriculture, Doon Business School,
Dehadun, Uttarakhand
E-mail: igjgulatirau09@gmail.com



Dr. C. O. Ilori (M.Sc., Ph.D.)
Lecturer, Dept. of Crop Protection
and Environmental Biology, Faculty
of Agriculture and Forestry,
University of Ibadan, E-mail:
co.ilori@mail.ui.edu.ng



Dr. A. R. Nautiyal (M. Sc., Ph.D.)
Professor and Director, High
Altitude Plant Physiology Research
Center, H.N.B. Garhwal Central
University, Srinagar (U.K.), India,
E-mail: arnautiyal@gmail.com



Dr. Babajide Odu (M.Sc., Ph.D.)
Lecturer, Dept. of Crop production
and Protection, Obafemi
Awolowo University Ile Ife, Nigeria,
E-mail: bodu@oauife.edu.ng and
babajide_odu@hotmail.com



Dr. N. Murugalatha (M.Sc., Ph.D.)
Assistant Professor, School of
Agricultural Studies, Quantum
University, Roorkee, India, E-Mail:
murugalatha.asc@quantumeducation.in



Dr. J. S. Chauhan (M. Sc., Ph.D.)
Professor and Head, Department
of Seed Technology, H.N.B.
Garhwal Central University,
Srinagar (U.K.),
E-mail:
js.chauhan@hnbgu.ac.in



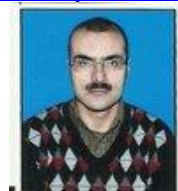
Dr. A. C. Mishra (M.Sc., Ph.D.)
Associate Professor, Horticulture
(Vegetable Science),
Banda Agriculture University,
Banda, U.P.



Dr. Abhishek Mathur (Ph.D.)
Executive Director (R&D), NCS
Green Earth Pvt. Ltd., Nagpur,
Maharashtra, India, E-mail:
abhishekmthr@gmail.com



Dr. K. L. Dangi (M.Sc., Ph.D.)
Professor, Rajasthan College of
Agriculture, Maharana Pratap
University of Agriculture and
Technology, Udaipur, E-mail:
dangik158@yahoo.co.in



Dr. Zahoor Ahmed Dar (Ph.D.)
Associate Professor, Genetics and
Plant Breeding, SKUAT, Srinagar,
J&K, E-mail:
zahoorpbgs@gmail.com



Article Index

- 1. GENETIC DIVERGENCE STUDY IN SUNFLOWER (*Helianthus annuus L.*), pp: 278-283**
Sachin Kumari and R. K. Sheoran*

Department of Genetics and Plant Breeding, Oil Seed Section, Chaudary Charan Singh Haryana Agriculture University, Hisar, Haryana, India
*Corresponding Author: sachin.narwal97@gmail.com
- 2. EFFECT OF IAA AND BAP ON SEED GERMINATION AND VEGETATIVE GROWTH ATTRIBUTES OF *RAPHANUS SATIVUS L.* pp: 284-290**
Zarkha Sultan, Neha Tiwari and Neha Saini*

Department of Botany, Uttaranchal (PG) College of Bio-Medical Sciences and Hospital, Dehradun, Uttarakhand, India
*Corresponding author: neha.tiwari7@gmail.com
- 3. FLOWERING, FRUITING, BREEDING TECHNIQUES AND BIOTECHNOLOGICAL APPROACHES IN MACADAMIA NUT, pp: 291-294**
*S. P. S. Solanki**

Department of Fruit Science, COH&F, Punjab Agriculture University (PAU), Ludhiana, Punjab, India
*Corresponding Author: shivanhm7@gmail.com
- 4. ETHNO BOTANICAL STUDIES ON BHOTIYA TRIBAL COMMUNITY OF UTTARKASHI DISTRICT, pp: 295-299**
*Mahendra Pal Singh Parmar*¹ and Arvind Singh²*

¹Department of Botany Govt. P.G College Uttarkashi, ²Department of Botany Govt. Degree College Kotdwar Bhabar, Uttarakhand, India
*Corresponding Author: mahen2004@rediffmail.com
- 5. STUDY THE POTENTIAL OF HOME GARDEN IN THE BIODIVERSITY CONSERVATION AND LIVELIHOOD, pp: 300-304**
Pramila Rana, S. K. Tewari and Ankush Singh*

College of Agriculture, G.B. Pant University of Agriculture and Technology, U. S. Nagar, Rudrapur, Uttarakhand, India
*Corresponding author: pramilarana788@gmail.com and pramilarana283@gmail.com
- 6. AN OVERVIEW ON *IN VITRO* REGENERATION OF MEDICINALLY VALUED ENDANGERED HIMALAYAN FLORAL SPECIES OF UTTARAKHAND, pp: 305-313**
Sneha Bhandari and Tapan K. Nailwal*

Department of Biotechnology, Kumaun University, Bhimtal Campus, Bhimtal, Nainital, Uttarakhand, India
*Corresponding Author: snehabhandari43@gmail.com

7. SCOPE AND CHALLENGES OF EXPLOITATION OF MALE STERILITY FOR DEVELOPING NEW HYBRIDS IN ORNAMENTAL CROPS, pp: 314-316

*Pooja Kaintura**

Department of Agriculture, Doon Business School, Selaqui, Dehradun, Uttarakhand, India

*Corresponding Author: poojakaintura29005@gmail.com

8. PRACTICE OF SHIFTING CULTIVATION IN NORTH-EASTERN INDIA, pp: 317-323

Sugandha*, Chepeu Koza, Rathod Digvijay Singh and Akshit Kukreti

Silviculture and Forest Management Division, Forest Research Institute (FRI), Dehradun, Uttarakhand, India

*Corresponding Author: kumarsugandha7@gmail.com