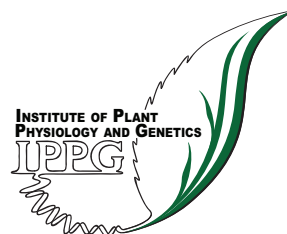


# GENETICS AND PLANT PHYSIOLOGY



Year 2019 | Volume 9 | Issue 1-2 | Pages 03-98



Published by the Institute of Plant Physiology and Genetics  
Bulgarian Academy of Sciences

P-ISSN 1314-6394  
E-ISSN 1314-5770

Prof. Marin Drinov Publishing House  
of Bulgarian Academy of Sciences

# GENETICS AND PLANT PHYSIOLOGY

An International Journal

**Year 2019, Volume 9, Issue 1–2, Pages 03–98**

Published by the Institute of Plant Physiology and Genetics  
Bulgarian Academy of Sciences

---

---

## Editor-in-Chief

Evgueni D. Ananiev

## Editorial Board

Kalina Ananieva	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
Petre Dobrev	Institute of Experimental Botany, Prague, Czech Republic
Urs Feller	University of Bern, Bern, Switzerland
Liliana Gigova	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
Mike Hall	Institute of Biological, Environmental and Rural Sciences, Aberystwyth, United Kingdom
Georgina Kosturkova	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
Svetlana Landjeva	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
Sergio Mappeli	Institute of Agricultural Biology and Biotechnology, Milan, Italy
Michael Moustakas	Aristotle University of Thessaloniki, Thessaloniki, Greece
Ivan Šalamon	University of Prešov, Prešov, Slovak Republic
Lyudmila Simova	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
Lyubomir Stoilov	Institute of Plant Physiology and Genetics, Sofia, Bulgaria
<i>Technical Editor</i>	Anna Dimitrova
<i>Print Designer</i>	Iskren Sergiev

---

---

## Contacts

Institute of Plant Physiology and Genetics  
Acad. G. Bonchev Street, Bldg. 21, 1113 Sofia, Bulgaria  
Web: <http://www.ifrg-bg.com>  
E-mail: [gapp@bio21.bas.bg](mailto:gapp@bio21.bas.bg)

# GENETICS AND PLANT PHYSIOLOGY

---

**Year 2019 | Volume 9 | Issue 1–2 | Pages 03–98**

---

Available online at <http://www.ifrg-bg.com>

Genetics and Plant Physiology is the new scientific journal issued by the Institute of Plant Physiology and Genetics at the Bulgarian Academy of Sciences. The journal will continue the tradition of its predecessors, the former journals "General and Applied Plant Physiology" and "Genetics and Breeding", to publish original articles in English on all aspects of plant biology including plant physiology and biochemistry as well as genetics and breeding. The scope will cover the basic physiological processes in plants such as photosynthesis, mineral nutrition, water relations, growth and development in normal and stress conditions as well as molecular plant biology, classical genetics and breeding. Studies can be based on physiological, environmental, genetical, biophysical or molecular approaches. Thus, we hope to encourage the participation of authors with various research interests in plant physiology and genetics.

**Genetics and Plant Physiology**

is indexed in:

EBSCO Publishing Inc.

Informatics India Ltd.

Google Scholar

---

**Published by the Institute of Plant Physiology and Genetics  
Bulgarian Academy of Sciences**

Reviews, research articles and short communications are very welcome. Research articles presented by young scientists (parts of PhD theses, post-doc fellowship reports) will be also highly appreciated.

---

---

*On the cover:* Pollination ecology of medicinal plants - article by Kozuharova, pp. 22–35.

Background photograph by Miroslava Sergieva.

---

---

*Printed by*

Prof. Marin Drinov Publishing House of Bulgarian Academy of Sciences  
Acad. G. Bonchev Street, Bl. 6, 1113 Sofia, Bulgaria  
Web: <http://www.baspress.com/>