

ISSN 1021-4437

CODEN: RJPPE2

# RUSSIAN JOURNAL OF PLANT PHYSIOLOGY

Pleiades  
Publishing Group  
Over **50** years  
in the service of  
science and education

Editor-in-Chief  
Vladimir V. Kuznetsov

<https://pleiades.online>  
<https://link.springer.com>



PLEIADES GROUP OF COMPANIES

Distributed by **SPRINGER NATURE**

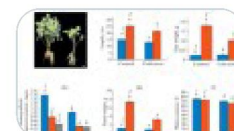


Volume 73, Issue 1  
February 2026

PLANT PHYSIOLOGY

32 articles in this issue

### **Divergent Physiological and Biochemical Responses of Roots and Shoots in *Saposhnikovia divaricata* to Cold Stress**



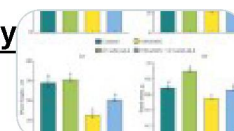
RESEARCH PAPERS | 27 January 2026 | Article: 32

### **Ecotoxicological Effects of Triclosan on Seedling Development and Antioxidant System of Canola Plants (*Brassica napus* L.)**



RESEARCH PAPERS | 27 January 2026 | Article: 31

### **Exogenous Allantoin Enhances Maize (*Zea mays* L.) Resilience to Salinity Stress: Physiological and Biochemical Insights**



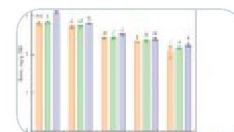
RESEARCH PAPERS | 27 January 2026 | Article: 30

### **Priming Induced Cell Cycle Arrest: A Strategy for Enhancing Seed Storability in Cucumber (*Cucumis sativus* L.)**



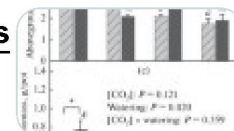
RESEARCH PAPERS | 27 January 2026 | Article: 29

### **Mitigation of Drought Stress in Licorice (*Glycyrrhiza glabra* L.) by Seaweed Extract (*Ascophyllum nodosum*): Effects on Morphological Traits, Pigments, and Biochemical Properties**

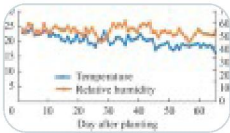


RESEARCH PAPERS | 27 January 2026 | Article: 28

### **Elevated Atmospheric CO<sub>2</sub> Concentration Mitigates the Negative Impacts of Soil Water Deficiency on Leaf Photosynthesis of Soybeans**



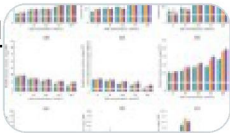
**Impact of SiO<sub>2</sub> Nanoparticles on Radish Growth, Enzyme Activity, and Nutrient Content under Saline Water Stress**



RESEARCH PAPERS | 27 January 2026 | Article: 26

---

**Silicon Improves Salt Tolerance through Osmotic Adjustment, Enhancing Antioxidant Capacity and Up-Regulating Ions Transporter Genes Expression in *Vigna radiata* L.**



RESEARCH PAPERS | 27 January 2026 | Article: 25

---

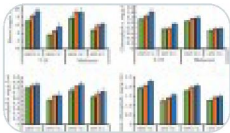
**Chitosan-Silver Nanocomposites in Combination with *Bacillus subtilis* for Control PVY and Induction of Plant Defense Mechanisms**



RESEARCH PAPERS | 27 January 2026 | Article: 24

---

**Salicylic Acid Enhances Yield and Alleviates Drought-Induced Oxidative Damage in Two Carrot Cultivars with Contrasting Tolerance**



RESEARCH PAPERS | 27 January 2026 | Article: 23

---

**State of the Antioxidant System and Photosynthetic Apparatus of Barley after Gamma-Irradiation at Different Growth Stages**



RESEARCH PAPERS | 27 January 2026 | Article: 22

---

**Antioxidant Enzyme Activity in the Leaves of Halophytes under the White Sea Coast Environmental Conditions**

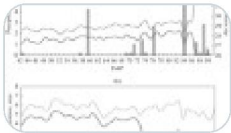
RESEARCH PAPERS | 27 January 2026 | Article: 21

---

**Genetic Engineering of C<sub>4</sub> Pathway Enzymes Enhances Limited Water Tolerance in C<sub>3</sub> Rice**

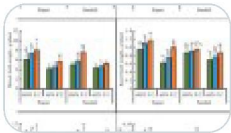


**Enhanced Productivity and Water-Use Efficiency in Grapevines Using Calcium Oxide Particle Films**



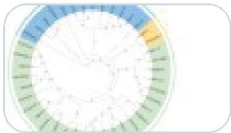
RESEARCH PAPERS | 27 January 2026 | Article: 19

**Comparative Effects of Externally Applied Glycinebetaine and Neem (*Azadirachta indica*) Leaf Extract on Plant Growth, Physio-Biochemical Characteristics and Yield Production of Canola (*Brassica napus* L.) Subjected to Drought Stress**



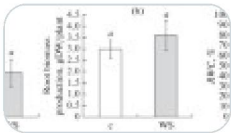
RESEARCH PAPERS | 27 January 2026 | Article: 18

**Comprehensive Genome-Wide Analysis and Expression Profiling of the Heat Shock Transcription Factor (Hsf) Gene Family, and Function Detection of *BpHsf11* in Heat Stress Response in Paper Mulberry (*Broussonetia papyrifera*)**



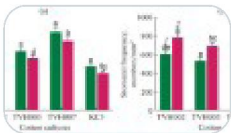
RESEARCH PAPERS | 27 January 2026 | Article: 17

**Combining Proteomic Approach with Morpho-Physiological Changes to Assess the Effect of Drought Stress on Olive Plants at Young Stage of Development**



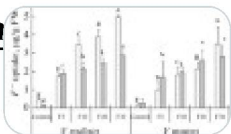
RESEARCH PAPERS | 27 January 2026 | Article: 16

**Unlocking the Stomatal Regulation, Gas Exchange Traits and Metabolite Profiles to Dissect the Drought Tolerance in Cotton**



RESEARCH PAPERS | 23 January 2026 | Article: 15

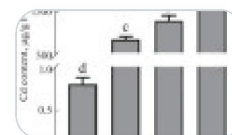
**Effects of Fluoride during the Early Growth Phase in Indian Pulses (*Vigna radiata* and *Vigna mungo*): Physiological Alterations and Cytotoxicity**



RESEARCH PAPERS | 23 January 2026 | Article: 14

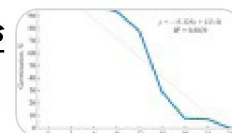


## Effects of Cadmium Stress on Polyamine Content, Antioxidant Defense and Nutrient Uptake in Tissue-Cultured *Potamogeton crispus* L. Seedlings



RESEARCH PAPERS | 23 January 2026 | Article: 13

## Comprehensive Assessment of Seed Vigor in Common Bean (*Phaseolus vulgaris* L.) Using Tetrazolium Test and Antioxidant Biomarkers



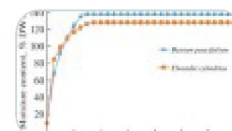
RESEARCH PAPERS | 23 January 2026 | Article: 12

## Exogenous Arginine as a Potential Biostimulant for Enhancing Salinity Stress Tolerance in Maize (*Zea mays* L.)



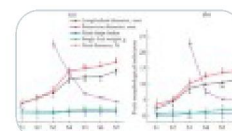
RESEARCH PAPERS | 23 January 2026 | Article: 11

## Unraveling Divergent Morphophysiological Dormancy Strategies in *Bunium paucifolium* and *Elwendia cylindrica* Seeds (Apiaceae)



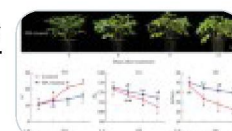
RESEARCH PAPERS | 23 January 2026 | Article: 10

## Blueberry Flavor Stems from Dynamic Shifts in Sugars, Acids, and Nutrient Properties during Fruit Ripening



RESEARCH PAPERS | 23 January 2026 | Article: 9

## Humic Acid Improves High-Temperature Tolerance in Herbaceous Peony



RESEARCH PAPERS | 23 January 2026 | Article: 8

## Physiological and Transcription Analyses Reveal the Regulatory Mechanism of Melatonin in Inducing Drought Resistance in Blueberry (*Vaccinium* spp.) Seedlings



RESEARCH PAPERS | 23 January 2026 | Article: 7

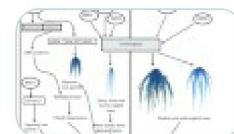
## **Antioxidant Responses Related to Flexure Wood Formation in Poplar**



RESEARCH PAPERS | 23 January 2026 | Article: 6

---

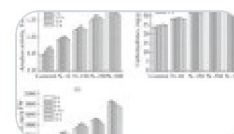
## **Smart Water Crops: Physiological and Genetic Innovations for Maximizing Water Productivity**



REVIEWS | 23 January 2026 | Article: 5

---

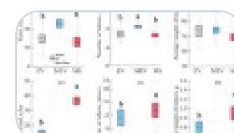
## **ROS Burst and Enhanced $\alpha$ -Amylase Activity Promoted Germination in Radish Seeds Nanoprimered with MgO-NPs**



RESEARCH PAPERS | 23 January 2026 | Article: 4

---

## **The Relationship between the Physiological Parameters of Leaves and the Yield and Quality of Potato Tubers**



RESEARCH PAPERS | 23 January 2026 | Article: 3

---

## **Deciphering Dark Proteome of Grapevine *Geminivirus*: Molecular Insights and Evolutionary Tactics of a Rising Viral Threat in Grapevine and Global Agriculture**



RESEARCH PAPERS | 23 January 2026 | Article: 2

---

## **Enhancement of Physiological, Phytochemical, and Antioxidant Characteristics in Artificial Tetraploid *Viola odorata***



RESEARCH PAPERS | 23 January 2026 | Article: 1

---