GOCE DELCEV UNIVERSITY - STIP
FACULTY OF AGRICULTURE

Journal of Agriculture and Plant Sciences

YEAR 2025 VOLUME 23, Number 1

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GOCE DELCEV UNIVERSITY - STIP, REPUBLIC OF NORTH MACEDONIA
FACULTY OF AGRICULTURE

doi.org/10.46763/JAPS201
Indexed in EBSCO database

ISSN 2545-4447 print
ISSN 2545-4455 on line
Vol. 23, No. 1, Year 2025

Journal of Agriculture and Plant Sciences, JAPS, Vol 23, No. 1

YEAR 2025 **Volume 23, Number 1**

EDITORIAL BOARD

CONTENT

IN HONOUR OF THE 25th ANNIVERSARY
OF THE PUBLISHING ACTIVITY OF THE FACULTY OF AGRICULTURE,
GOCE DELCEV UNIVERSITY – STIP

The Publishing activity of the Faculty of Agriculture has a profound tradition and own specific history, more than two decades old. Volume 23, Number 1 of the Journal of Agriculture and Plant Science, is dedicated to the 25-years publishing tradition of the Faculty of Agriculture, Goce Delcev University - Stip.

The beginnings of the Publishing activity of the Faculty of Agriculture date back to 2000 with the release of the Collection of Abstracts 1990-2000 of, in that time, Public Scientific Institution Institute for Southern Agricultural Crops - Strumica. From 2001 to 2006, the institute continued its publication activities through publication of the Annual Yearbooks of the Institute for Southern Agricultural Crops - Strumica.

The Institute for Southern Agricultural Crops - Strumica was merged with Goce Delcev University as part of the Faculty of Agriculture following the law on the establishment of the State University Goce Delcev - Stip, adopted by the Parliament of the Republic of Macedonia on March 27, 2007. Since then, the goals of the Faculty of Agriculture have been based on the long-standing experience and rich tradition of our Macedonian agricultural production. Therefore, it is understandable that we have continued to nurture the rich tradition through specific educational, research and publishing activities.

The first issue of the Annual Yearbook of the Faculty of Agriculture, Goce Delcev University - Stip was published in 2007, the year of University's establishment. The continuous publication activity is indisputable proof of the publication of scientific and research activities, primarily of the research staff of the faculty, but also of the wider agricultural community in the country and the region. The Annual Yearbooks of the Faculty of Agriculture was published continuously from 2007 to 2016 in Macedonian language.

On April 6, 2017, the Teaching and Scientific Board of the Faculty of Agriculture launched an initiative to transform the Annual Yearbook of Faculty of Agriculture into an international journal published in English with Macedonian abstracts. Consequently, the first number of Volume 15 was published in June 2017 as a continuation and successor of the Annual Yearbook of Faculty of Agriculture.

Today, we can proudly state that JAPS is an international journal that integrates the latest scientific research results in papers of researchers from our faculty, the country, the region and beyond. JAPS is an indexed journal in the EBSCO and DOAJ which contributes to its visibility and internationalization. These achievements reflect the continuous growth and development of the publishing activity of Faculty of Agriculture.

The JAPS Editorial Office expresses its profound gratitude to Prof. d-r Sasa Mitrev, whose initiative as Director of the Institute of Southern Agricultural Crops - Strumica marked the beginning of the Publishing Activity, and whose distinguished leadership as the first Rector of Goce Delcev University significantly strengthened the Publishing Department and laid the foundations for future academic advancement.

The JAPS Editorial Office express its deepest gratitude the members of Editorial Board for their commitment and support towards internationalization of the journal. The gratitude is expanded to all authors for their interest in publishing in our journal. Last but now least, the thankfulness is conveyed to all reviewers and language and technical editors who have contributed to the high quality of the journal publications since its very beginnings.

Each passing decade brings the challenge of the next!

May the next decade bring new quality, new bloom and new challenges in the Publishing activity of the Faculty of Agriculture, Goce Delcev University – Stip.

Editorial Board,
June, 2025

Editor in chief,
Prof. Liljana Koleva Gudeva, PhD

INTRODUCTION

In recent years, climate change has emerged as a key driver influencing pest population dynamics and crop health. Warmer winters, extended growing seasons, and irregular rainfall patterns have altered the timing, abundance, and distribution of several economically important pests. During the current production season, notable changes in pest incidence have been observed across both vegetable and cereal crops, with several species showing significant deviations in abundance compared to previous years. These shifts are likely influenced by a combination of climatic conditions, crop phenology, and the presence or absence of natural enemies.

In vegetable production, the presence of thrips (Thrips tabaci Lindeman and Frankliniella occidentalis Pergande) has shown a marked increase, estimated at approximately 10 – 15% higher than in prior seasons. Thrips are recognized as important pests due to their direct feeding damage and their role as vectors of various plant viruses. This upward trend is of concern, as it may indicate more favorable environmental conditions for their reproduction and survival. Similarly, leaf aphid populations (Homoptera: Aphididae) have risen substantially, with recorded numbers about 30% higher than last year. Aphids, like thrips, pose a dual threat through direct sap-feeding and transmission of viral pathogens, meaning that their population increase could have significant implications for crop health and yield.

The occurrence of the tomato leafminer (Tuta absoluta Meyrick) in spring tomato production remained at levels similar to the previous year. However, a dramatic situation was recorded in summer production, where intense infestations led to severe damage, with some crops experiencing 100% yield loss. Also, two economically important moth pests, Autographa gamma L. (silver Y moth) and Helicoverpa armigera Hübner (cotton bollworm), were observed. This year, A. gamma was notably more abundant than H. armigera. This shift in prevalence may be attributed to ongoing climate change, which alters pest dynamics, as well as the probable presence of specific natural predators that target H. armigera, thereby reducing its population density. Observations also indicate that moth pest infestations were more frequent and severe in tomato crops than in peppers, suggesting a possible crop preference or differences in pest management practices between these crops.

Soil nematode populations remained stable compared to previous years, continuing to affect nearly 80% of the vegetable production area. Given their persistence and the extent of the affected area, nematodes remain a chronic challenge in vegetable production, requiring ongoing monitoring and integrated management approaches.

In cereal crop production, cereal bugs, particularly Eurygaster species, were recorded at unusually high population densities this year. During the first inspection period (1–15 May), population levels were more than 50% higher than those recorded during the same period in the previous year. These pests can cause substantial yield and quality losses by feeding on developing grains. Interestingly, during the second inspection period (1–15 June), their presence had virtually disappeared. This rapid decline was likely due to accelerated wheat ripening, which shortened the feeding period available to the pests.

In contrast, wheat thrips (Haplothrips tritici Kurdyumov) was entirely absent this season, despite being observed in the previous year. This absence is most likely linked to the unusually high temperatures recorded during the main period of their activity, combined with the rapid maturation of wheat, which limited the window for infestation.

Overall, the data from this year indicate a complex interaction between pest populations, climatic conditions, and crop development stages. While some pests have increased in prevalence, posing new management challenges, others have declined, likely due to unfavorable environmental conditions. Such fluctuations highlight the importance of continuous monitoring and adaptive integrated pest management strategies tailored to local agro-ecological conditions.

June, 2025

On behalf of JAPS Editorial Board,
Ass. prof. Biljana Atanasova
Member of JAPS Editorial Team