#### **OPINION**



on the dissertation for the award of the educational and scientific degree "Doctor" in: field of higher education: 3. Social, economic and legal sciences; professional field: 3.8. Economics; scientific specialty: Organization and management of production (agriculture).

Author of the dissertation: Ana Dragoljub Milosevic -

doctoral student of independent training at the Department of "Management and Marketing" at the Agricultural University, Plovdiv.

**Topic of the dissertation:** Comparative analysis of organic and conventional production in the Republic of Serbia.

**Prepared by:** Prof. Ivanka Milkova Kostova, PhD, Plovdiv University "Paisiy Hilendarski", field of higher education: 3. Social, economic and legal sciences; professional field: 3.8. Economics; scientific specialty: Economics and management.

Appointed as a member of the scientific jury by order No. RD-16-1176 of 17.11.2025 by the Rector of the University of Belgrade.

#### 1. Relevance of the problem.

The dissertation presents a comprehensive comparative analysis of organic and conventional food production in the Republic of Serbia, covering the period 2016–2021, with additional insights from the global and Balkan context. It highlights the growing concern of consumers about food quality, health and environmental sustainability, positioning organic agriculture as a vital response to these challenges. It has been shown that organic production offers multiple benefits, including reduced pesticide residues, increased biodiversity and a more balanced ecosystem, which collectively contribute to improved human health and environmental protection.

2. Purpose, objectives, hypotheses and research methods.

Objective

The aim of this doctoral dissertation is to conduct a comparative analysis of organic and conventional food production in Serbia in the period 2016–2021. The dissertation aims to examine the leading factors in the world for comparison, to statistically analyze organic farming in the Balkan countries against the global context, and to investigate whether the "conventionalization hypothesis" is correct, i.e. whether organic farming is essentially just a slightly modified conventional farming. It also seeks to show the main benefits of organic production, namely that it yields better quality food with healthier ingredients and fewer harmful substances compared to conventional production. Additionally, the dissertation investigates whether a wider adoption of organic principles would improve people's health, extend life expectancy, and help establish a better balance in the planet's ecosystem. Ultimately, it seeks to determine whether increasing public awareness and knowledge dissemination are essential prerequisites for the development of organic farming and understanding its principles.

### Research Object

The research object is the comparative analysis of organic and conventional food production in the Republic of Serbia, with a special focus on the period 2016—2021. The study aims to examine various aspects, including the economic, environmental, social and health benefits and disadvantages of both types of production, as well as to investigate consumer awareness and their behavior towards organic products in Serbia. The study also takes into account the situation in the Balkan countries and compares it with global trends.

#### Research Object

The subject of this study is the comparison and analysis of organic and conventional food production, with a focus on their economic, environmental, social and health aspects. It examines the nutritional value, environmental impact, consumer awareness and health benefits of organic food compared to conventional food, especially in the context of the Republic of Serbia, the Balkan countries and globally. The study also examines consumer behavior, farmer attitudes and the potential for development of organic production and markets.

The dissertation presents four main hypotheses that it aims to investigate and on which to reach specific conclusions:

Hypothesis 1: Organic production will provide food with more optimal nutritional value and fewer hazardous ingredients than conventional food,

which will positively affect the general health of the inhabitants of the Republic of Serbia.

Hypothesis 2: By applying the organic principle of food production to the greatest extent possible compared to conventional principles, the balance of the ecosystem will be maintained and improved.

Hypothesis 3: In order for organic food to have an advantage over conventional production, one of the first conditions is the massive increase in the population's awareness of the value of its products and the dissemination of knowledge on this topic.

Hypothesis 4: The increased market demand and development of organic production will eventually lead to a trend towards adopting more conventional practices in this type of production in order to increase productivity and efficiency.

#### The study uses:

- Descriptive and comparative analysis of official statistics.
- Literature review from international and national sources.
- Survey among Serbian citizens on awareness and attitudes towards organic food.

The central thesis is that organic production, despite lower yields, offers significant benefits for health, sustainability and rural development and its wider adoption can address many challenges posed by conventional agriculture.

#### Objectives:

- Analysis of the development and current state of organic and conventional agriculture in Serbia.
- Assessment of the economic, environmental and social impacts of both systems.
- Identification of barriers and opportunities for the expansion of organic agriculture.
- Formulation of recommendations for sustainable agricultural development.

# 3. Visuality and presentation of the results obtained.

The structure of the dissertation is logically constructed, well balanced by chapters and paragraphs. The dissertation consists of an introduction, an exposition in three chapters, a conclusion and a list of sources and appendices. The dissertation is 365 pages long. The analysis in the dissertation research is illustrated with 6 images, 81 tables, 41 diagrams and 24 graphs.

The content of the dissertation indicates that the doctoral student has carried out in-depth scientific research.

The results of the analysis confirm the formulated research goal and tasks.

My assessment of the structure and content of the dissertation is positive. It includes and combines scientific knowledge and practical approaches to solving problems. There is evidence that the doctoral student can conduct independent scientific research, draw conclusions and justify proposals for solving problems.

#### 4. Discussion of the results and literature used.

The analysis of the dissertation work, of the means of scientific research used in it, forms the conviction that the dissertation work contains sufficient evidence of scientific and applied contributions.

I believe that the contributions indicated in the Reference for contributions of the dissertation work reflect what has been achieved in it.

### 5. Contributions of the dissertation work.

As a result of the dissertation research, the following contributions can be formulated:

### Scientific contributions:

- An empirical analysis of the nutritional value and the presence of hazardous ingredients in organic versus conventional production in Serbia was conducted, providing quantitative data on the impact on public health.
- An assessment of the "conventionalization hypothesis" through a systematic review and comparative analysis, which establishes to what extent and by what mechanisms organic agriculture acquires features of conventional under market pressure.
- The impact of agricultural practices on ecosystem indicators and biodiversity has been comprehensively studied, providing an empirical basis for comparison

between organic and conventional practices in terms of ecosystem sustainability.

- An interdisciplinary review of economic, ecological, social and health scientific evidence has been conducted, supported by statistical analysis and synthesis of the available literature.
- Key scientific gaps have been identified and priority areas for future research have been formulated including confirmation of the health effects of organic food and precise measurement of the impact on ecosystem services.

## Scientific and applied contributions

- A methodological approach has been developed for assessing the food and health security of organic products, applicable for monitoring and policy in Serbia.
- Guidelines for sustainable agronomic measures have been formulated that support the maintenance and restoration of ecosystem balance when applying the principles of organic agriculture.
- The impact of public awareness raising and knowledge dissemination campaigns on consumer preferences and demand for organic products is assessed with specific recommendations for educational and communication strategies.
- An analysis of market, certification and regulatory barriers to the development of organic agriculture in Serbia is carried out, with proposals for policies and measures to strengthen the market and consumer confidence.
- Behavioral motives for purchasing organic food are analyzed, translating the results into specific marketing and regulatory recommendations to stimulate sustainable consumption.
- Practically oriented requirements for future research and pilot programs are formulated to support the translation of scientific results into agricultural practice and public health policies.

## 6. Critical remarks and questions.

I recommend that the doctoral student continue to work on the outlined directions for future research.

#### 7. Published articles and citations.

The six publications presented by the doctoral student reflect the results of the theoretical and empirical research in the dissertation work.

The dissertation research conducted, the results obtained, the publications on the dissertation and the formulated contributions are the personal merit of the doctoral student.

The presented abstract objectively reflects the structure and content of the dissertation work.

#### **CONCLUSION:**

Based on the various research methods learned and applied by the doctoral student, the correctly conducted experiments, the generalizations and conclusions made, I believe that the presented dissertation work meets the requirements of the Law on Agricultural Research and Development of the Republic of Bulgaria and the Regulations of the Agrarian University for its application, which gives me reason to evaluate it POSITIVELY.

I would like to propose to the esteemed Scientific Jury to also vote positively and award Ana Dragoljub Milošević the educational and scientific degree of "doctor" in the scientific specialty Organization and Management of Production (Agriculture).

Date: 30.11.2025

city of Plovdiv

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