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**THE IMPACT OF AGRICULTURE ON BIODIVERSITY AND ECOSYSTEM
HEALTH – HOW TO FIND THE BALANCE?**

J. Zagrodzka, student,

Warsaw University of Life Sciences, Poland

J. Gruszczyńska, Dr hab., professor

Warsaw University of Life Sciences, Poland

V. Kostiuk, Doctor of Veterinary Sciences, Professor

National University of Life and Environmental Sciences of Ukraine, Ukraine

B. Grzegorzółka, Dr Sc

Warsaw University of Life Sciences, Poland

Agriculture is one of the key sectors of the economy, providing basic food products for a growing population. However, its intensification, related to the development of technology, globalization of markets and growing demand for food, leads to serious ecological and health consequences. The paper analyzes the impact of modern agricultural practices on ecosystems and the health of humans and animals. It was indicated that intensive exploitation of agricultural land results in habitat fragmentation, soil degradation, water eutrophication and a decline in the population of pollinating insects, which negatively affects the balance of ecosystems.

In addition, the health risks resulting from excessive use of pesticides and fertilizers, which can lead to cancer, endocrine disorders and contamination of drinking water, were discussed. Attention was also drawn to the problem of overusing

antibiotics in animal breeding, which contributes to the increase in antibiotic resistance of microorganisms, being a serious challenge for modern medicine.

In the context of counteracting these negative effects, sustainable agriculture strategies were presented, including organic farming, agroforestry, crop rotation and reducing the use of agrochemicals in favor of biological methods of plant protection. A special role was assigned to animals in agricultural ecosystems, emphasizing their importance for plant pollination, pest control and natural fertilization of soils. It was indicated that the implementation of innovative technologies, such as precision farming, can contribute to reducing the negative impact of agricultural production on the environment.

In summary, it is crucial to implement sustainable agriculture strategies that will optimize agricultural production efficiency while minimizing pressure on ecosystems. Achieving a balance between economic aspects and environmental protection requires interdisciplinary cooperation between scientists and agricultural producers. In addition, education and informed consumer choices play an important role, which can stimulate the development of more ecological production models. Long-term food security and ecosystem stability can only be guaranteed through a holistic approach to natural resource management, based on the latest scientific achievements and innovative technologies.



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НАУКОВІ І ТЕХНОЛОГІЧНІ ВИКЛИКИ ТВАРИННИЦТВА У ХХІ СТОЛІТТІ



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