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DISEASES CAUSED BY THE USE OF PESTICIDES IN AGRICULTURE

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Abstract:
This article analyzes the impact of pesticides widely used in agriculture on human health. It examines the ways pesticides enter the human body and their harmful effects on the respiratory, nervous, endocrine and other systems. Additionally, preventive measures to reduce the risks associated with pesticide exposure are highlighted.

Keywords: Pesticides, agriculture, human health, toxicology, diseases, cancer, nervous system, respiratory system, ecology, prevent

INTRODUCTION: Pesticides are widely used chemical substances in agriculture that play an important role in combating pests. However, their improper or excessive use can pose serious health risks to humans. Research has shown that pesticide residues can weaken the immune system, leading to cancer, nervous system diseases, and reproductive issues. Therefore, it is crucial to use pesticides correctly in agriculture and to ensure that the population has access to high-quality food products.

RELEVENCE OF THE TOPIC: According to the World Health Organization (WHO), more than 3 million people are poisoned by pesticides every year, and thousands of them die as a result. This issue is particularly pressing in developing countries. In Uzbekistan, agriculture is one of the key sectors of the economy, and pesticides are widely used to control harmful insects and weeds in farming and horticulture. However, the incorrect or excessive use of these chemicals increases environmental and health risks. Farmers and workers in the fields often handle pesticides without protective equipment, which leads to skin diseases, respiratory problems, and nervous system disorders. The contamination of soil and water sources with pesticides also causes environmental problems. In some regions, the level of chemical substances in groundwater has been found to exceed permissible limits.

OBJECTIVES AND TASKS OF THE RESEARCH: The main objective of this research is to assess the impact of improper and excessive pesticide use on human health. The tasks include:
1.Identifying the pathways through which pesticides enter the human body.
2.Analyzing the effects of pesticides on the respiratory, nervous, endocrine, and other body systems.
3.Developing preventive and safety measures.

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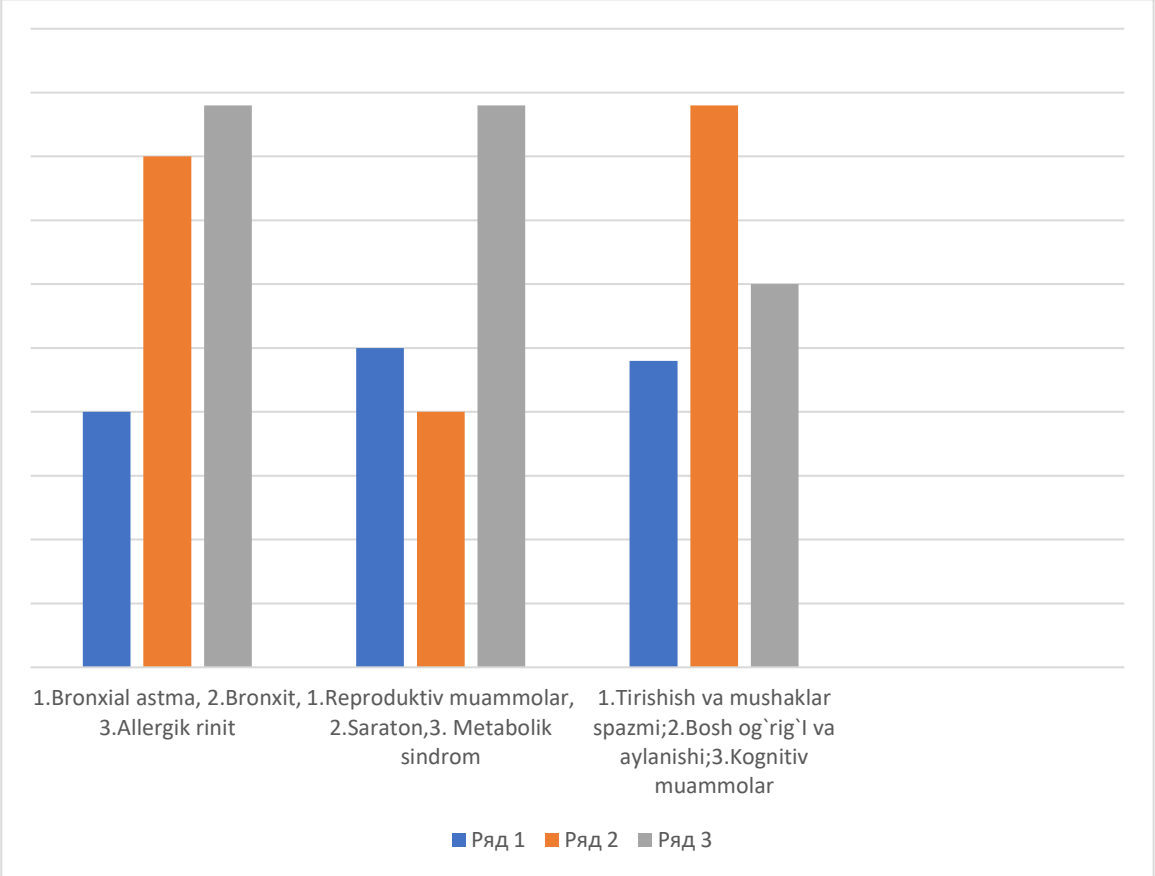

RESEARCH METHODS:

1. Studying scientific articles on agroecology and medicine.

2. Survey and statistical analysis – examining respiratory and endocrine diseases resulting from pesticide use.

3. Medical observations – identifying positive changes in patients with respiratory and endocrine diseases after limiting the impact of influencing factors.

RESEARCH OBJECT AND CONDITIONS: The study was conducted in Tashkent and Fergana regions. Participants: 80 patients (40 diagnosed with respiratory diseases and 40 with endocrine system disorders).

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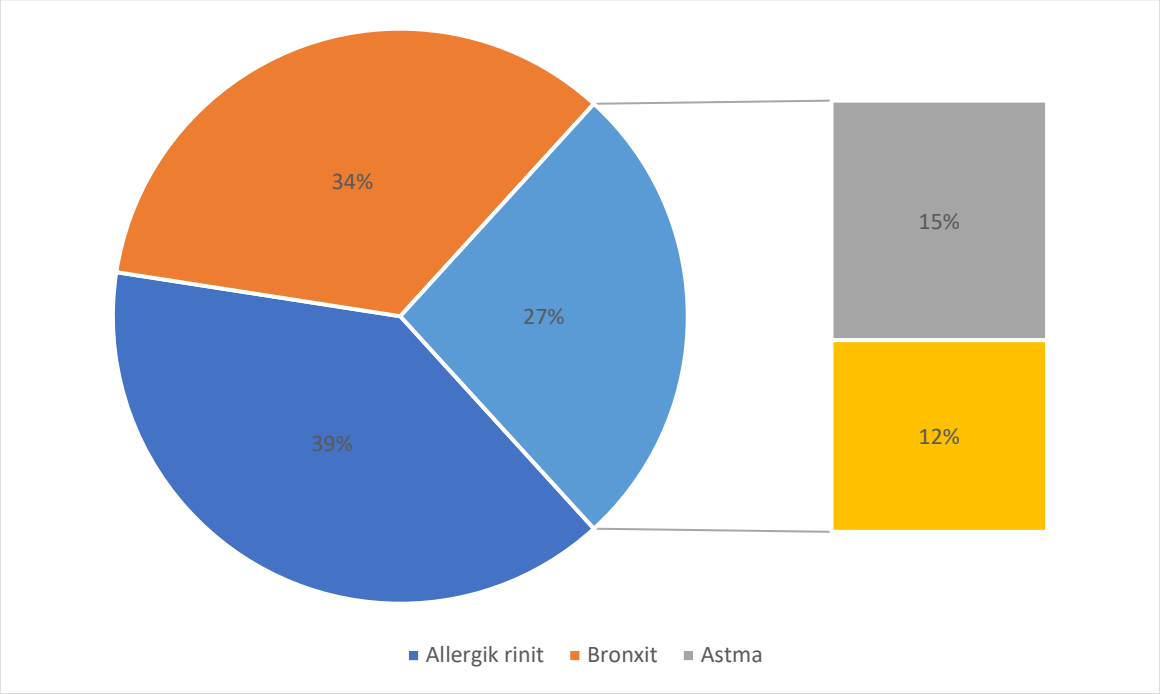

MAIN RESULTS: The study found that farmers and other workers exposed to pesticides often inhale them in aerosol, gas, or dust form, leading to acute intoxication, bronchitis, and asthma at significantly higher rates.
Additionally, some pesticides act as endocrine disruptors, disturbing hormone balance and negatively affecting reproductive function and thyroid activity.

CONCLUSION: The study results indicate that respiratory diseases—bronchial asthma, bronchitis, and allergic rhinitis—are more prevalent and severely impact patients' health compared to endocrine disorders.
Furthermore, symptoms such as headaches, dizziness, and cognitive impairments were also common complaints among patients.

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