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**COMPLEX RISK ASSESSMENT FOR WORKERS USING A FUNGICIDE BASED
ON BENZOVINDIFLUPIR AND PROPICONAZOLE**

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Actuality. To prevent the adverse effects of the use of pesticides, a risk assessment is carried out for workers using various technologies. Subsequently, the safety of the use of pesticides is ensured by compliance with the established regulations and rules for the use of pesticides.

The purpose: assess the risk of adverse effects of the active ingredients of the fungicide on workers, arising during treatment in contact with the skin and inhalation.

Materials and methods. The study of the conditions for the use of a fungicide based on benzovindiflupir 40 g / l and propiconazole 250 g / l in the conditions of the agro-industrial complex was carried out on non-agricultural lands.

Fungicide treatment was carried out using a Zubr sprayer, coupled to a tractor. The consumption rate of the drug is 0.5 l / ha. Working solution consumption 300 l / ha. All operations were performed by the operator and the tractor driver, dressed in accordance with the recommendations contained in the manufacturer's safety data sheet.

In accordance with this goal, the assessment of the conditions for the use of plant protection products was carried out on the basis of the results of the analysis of residual amounts of active substances in the following objects:

- air of the breathing zone of the operator-filling station for preparation of the working solution of the drug and refueling the machine;
- the air of the breathing zone of the tractor driver performing the treatment;
- washing off the skin of the operator and the tractor driver after the end of the work;
- drift to the ground during processing.

The determination of active substances was carried out in accordance with the analytical methods for the determination of residual amounts of pesticides in habitats and crop products, approved or adapted in accordance with the procedure established in the Republic of Belarus.

Results and discussion. During the treatment, the workers did not experience any deterioration in their health, irritation of the skin or mucous membranes of the eyes.

Washes from the surface of the open and closed parts of the body of the operators and the tractor driver were made after the completion of production operations using fat-free cotton swabs moistened with ethyl alcohol.

The value of the total risk of complex (inhalation and dermal) fungicide exposure associated with the intake of benzovindiflupir for the fueling operator is 0.115, for the tractor driver - 0.113, associated with the supply of propiconazole for the fueling operator is 0.039, for the tractor driver - 0.025. Risk less than 1 is considered acceptable.

Findings. Subject to the established agrotechnical and hygienic regulations for use, the results of the studies made it possible to evaluate the fungicide as a drug with an acceptable risk for those working in the agro-industrial complex. Under real conditions of fungicide treatments, at a maximum consumption rate of the drug of 0.5 l / ha using the available agricultural equipment and following the recommended application regulations, they meet hygienic requirements, there was no excess of hygiene standards in the air of the working area, there was no deterioration of working conditions, environmental pollution.