SELLER'S HYGIENIC STANDARDS IN ENVIRONMENTAL OBJECTS AND REGULATIONS FOR ITS SAFE USE

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Abstract:

The urgency of constant increase in the range and quantity of pesticides applied expanding the scope of their use of in various sectors of agriculture, makes the possibility of increasing air pollution, in the ode of reservoirs and food.Pesticides can enter the objects of the environment with immediate treatments plants, soil

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Penetrating or the other way in a plant, the chemicals are conveyed upstream and downstream currents of fluid circulating in the plant, thus contaminating the food products , obtained from such plants. In addition, during the processing of plants, there is a danger of pollution of atmospheric air and water of reservoirs.

Therefore, there is an urgent need to develop a hygienically grounded rate of pesticides in the atmospheric air, the air of the working area, the water of reservoirs, as well as in crop products .

In our Republic, a new, promising insecticide Seller 20% has been synthesized. for wheat pest control.

Purpose of the study.

Scientific substantiate hygienic norms of the new insecticide Celler 20% into the atmospheric air , the air of the working area, into the waters of reservoirs, and food of plant origin and the indicative permissible level (TAC) in the soil.

Materials and research methods.

Determining residual amounts of drug Celler 20% in food products in the atmospheric air, the working area in the air and soil were performed according to the guidelines for the definition of a new group of synthetic feast pyrethroids in plants approved MH RU 25 December 1997 for №4344-87.

A characteristic feature of most pesticides used in agriculture, they can enter water bodies and have an adverse effect on the organoleptic properties of water. In order to establish the maximum permissible concentration (MPC) of the drug on the organoleptic properties of

water and the sanitary regime of water bodies. According to the influence on the organoleptic properties of water (odor), the threshold concentration is set at the level of 0.04 mg / l. The drug in this concentration did not foam, did not change the color of the water. According to the data of sanitary and toxicological experience, the threshold concentration is set at the level of 0.72 mg / l, the practical limit is at the level of 2.5 mg / l.

The taste threshold is defined at 4.0mg / l, the practical limit is 7.0mg / l. A study of the possible effect of the drug on the color and smell of water was carried out. As a result of the study, it was found that Seller at the threshold concentration did not affect the paint and odor of water in the waters .

The study of the possible effect of the drug on the processes of self-purification of water in reservoirs was carried out by observing the dynamics of biochemical oxygen consumption (BOD) and the processes of ammonification and nitrification of nitrogen-containing substances. The threshold for the effect on biochemical oxygen consumption was set at a concentration of 2.0 mg / l; the drug at this concentration did not affect the processes of mineralization of nitrogen compounds.

Thus, the complex of studies based on the data sanitary o- toxicological experiment allows to recommend MPC insecticide Celler in water reservoirs at 0,04mg / l, limiting harm organoleptic indication.

Based on the data on stability, toxicometry parameters , guided by common hygienic practice approaches to the regulation of pesticides in food, the maximum permissible level and (MRL) of the drug in wheat "should not be".

Based on hygienic research, as well as methodological approaches to the regulation of harmful substances in the air, taking into account the toxicological parameters and its physicochemical properties, the calculation method justified and recommended the maximum permissible concentration (MPC) of Seller in the atmospheric air at the level of 0.002 mg / m3, in the air of the working area - 0.24 mg / m3.

In accordance with the "guidelines for the comprehensive assessment of new pesticides" and taking into account the maximum permissible level and (MRL) in food products of plant origin, the estimated permissible concentration of Seller in the soil at a level of 0.2 mg / kg is recommended. Thus, on the basis of a complex of sanitary-hygienic and toxicological studies, the new Seller insecticide can be recommended for use in agricultural practice, subject to mandatory compliance with the safety rules when working with pesticides and compliance with the development of regulations and standards for the use of the drug.

Safety precautions when working with Seller

Persons under 18 years of age, pregnant and lactating women, as well as persons who, during a preliminary medical examination, have identified diseases that are a contraindication for working with pesticides, are not allowed to work with the drug .

When working with drugs, all personnel must be provided with overalls and personal protective equipment: overalls, apron, rubber boots, gloves, respirator, goggles.

Smoking, drinking and eating while working with drugs is prohibited . At the end you should take a shower or wash your hands and body areas thoroughly with soap and water.

The drug is transported by all means of transport in accordance with the rules for the carriage of dangerous goods. The drug should be stored in a serviceable factory container, provided with a label indicating the name of the drug and the date of its manufacture.

Storage of the drug is allowed only in warehouses specially designed for this purpose, protected from direct sunlight. Joint storage and transportation with food and feed is not allowed.

It is forbidden to use containers from the preparation for storing food and fodder.

Findings:

1. Seller 20% is a non-systemic insecticide of contact and abdominal action with a pronounced residual effect on treated plants.
2. In preparation parameters of acute toxicity refers to the IRS hazard class (srednetoksichnye chemicals) in accordance with the sanitary x Rules and Regulations of the Republic of Uzbekistan - SanPiN № 0321-15.
3. The drug has a weak irritant effect on the mucous membranes of the eyes and on the skin. The insecticide has functional cumulation.
4. Scientifically grounded permissible daily dose (ADI) for the drug at the level of 0.72 mg / person / day.