

Dubin A.M., Vasylenko O.V.

UTILIZATION OF ORGANIC RESIDUES AS THE SOLUTION TO ENVIRONMENTAL PROBLEMS OF AGRICULTURE

Functioning of agricultural enterprises, particularly in livestock industry, which activities are connected with accumulation of large amounts of organic wastes is the cause of serious environmental problems. Special attention in this regard large complexes in beef production require. Solution of such problems is the optimal system of utilization of animal wastes by implementing technology of vermicultivation.

Methods of investigation. Experimental studies were carried out in the period of 2011 – 2013 at Uman National University of Horticulture. As part of tasks different types of substrate (compost) were studied for keeping artificial populations of red compost worms.

Results of the study. Results of three-year study of the dynamics of agro-ecological condition of the substrate for keeping artificial populations of a red manure worm under conditions of vermicultivation are shown. Analyzing results of the studies it may be noted that the content of vermicompost depends on the type of organic wastes and fillers. It can be programmed by agrochemical parameters, using the well-balanced mix of ingredients.

Indicators of agrochemical condition of the substrate during the entire season were large in a variant with such a component of composting as cattle manure. But in terms of utilization of plant residues the best variant of the experiment is a combination of cattle manure and plant residues in ratio of 1:1 for composting.

Conclusions. Regularities of changing agrochemical parameters of the substrate during the whole season of keeping artificial population are investigated. Results of studies showed that in terms of utilization of plant residues the best variant of the compost is a combination of cattle manure and plant residues in ratio of 1:1.

Key words: vermicomposting, red manure worm, organic residues, substrate, biohumus.