REVIEW OF THEORETICAL STUDIES OF PROCESS OF LIQUID MINERAL FERTILIZERS

V. B. Onishchenko, I. S. Lyubchenko

Abstract. *Today one of the most advanced technology is application of liquid fertilizer by sprayer. For top-dressing are using concentrated solutions of chemical compounds that actively affect the plant. Any error may affect the physiological processes that occurs in the plant, burns the leaves and crop losses. There was conducted a review of theoretical research process of movement, evaporation and deposition of drops. Considered mathematical model of variable mass drops under the action of air flow with velocity gradient and obtaining demolition and settlement patterns of fluid droplets depending on the wind speed. The decision of model motion drop of variable mass in the form of nonlinear differential equations can determine the main parameters of subsidence drops under air flow. The review showed that the authors didn't consider the motion of drops of liquid fertilizer in the airspace. Size droplets should be > 503 microns, because smaller droplets trapped on the plants and cause burns. Obtained in the results can subsequently be used to refine and improve methods of fertilization.*

Key words: ***fluid droplets, evaporation, deposition, demolition, theoretical research***