RESEARCH DEFLECTING SPRAY DEVICE FOR LIQUID MINERAL FERTILIZERS

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Abstract. *The use of liquid fertilizer on the leaves can solve many problems associated with plants nutrition. However, their application are requires accurate calculation of the number of needed fertilizers, determine the timing of feeding and correct selection of spray equipment. Each nozzle can form at a certain pressure drops different diameter. The most optimal for the application of liquid fertilizer is deflector nozzles as provide a solid spray from big drops and create a horizontal spray, thus preventing secondary spraying droplets into smaller ones. For applying liquid fertilizers is important to get the drop, which is the recommended size >503 micron, since smaller droplets staying on the plants and cause burns. The article presents the results of research deflector nozzles devices manufactured by leading foreign companies and the formation of drops by them at different pressures. Calculation of volume mean diameter showed that the percentage drops which size > 500 micron, are only 3-7%, depending on the pressure. Determined pressure ranges at which the number of drops using liquid fertilizers will be maximized.*

Key words: ***liquid mineral fertilizer, deflector nozzle, volume mean diameter, pressure***