

Abstract

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Title of Thesis: Dosing of veterinary eye drops 2.

In this thesis, the mass of veterinary eye drops for chicken vaccination was evaluated. Drops were produced either by conventional dosing system or by new developed dropper device (semi-automatic). The influence of dosing rate, dispensing angle (90°, 65°, 45°) and volume of liquid (5 – 30 ml) on the mass of eye drop was investigated. The higher dosing rate resulted in the increase in drop mass. The influence of dosing rate on the mass of drop was significant ($p < 0.01$) for both dispensing systems. The drop mass decreased with the decrease in the dispensing angle using manual dosing system if the eye dropper tip was not wetted, with the wetted one, the drop mass increased in comparison to vertical dropping. Due to the construction of the dropper device, the influence of dispensing angle was not evaluated, however, the wetting of dropper tip was not observed thanks to defined perimeter. The reduction in the remaining preparation volume led to the decrease in drop weight, particularly with simultaneous dispensing angle decrease, the effect was not significant.