

Abstract

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Title of Thesis: Dosing of veterinary eye drops 1.

The main purpose of this thesis was to find out, whether and to what extent the rate of dispensing, the dispensing angle (90°, 65°, 45°) and the volume of preparation (30 ml, 15 ml, 5 ml) had effected the mass of commercial eye drops for poultry vaccination. Drops were produced manually by using conventional dispensing system (plastic 30 ml dropper bottle and dropper tip) and by using a new prototype of semi-automatic device. The drop mass increased with increasing the rate of drop formation in every examined combination of factors. With decreasing of the dispensing angle, the drop mass decreased only in a case of constant rate dropping. In all other cases, especially with volume reduction to 15 ml and 5 ml, the drop size often increased due to the wetting of hemispherical dropper tip. As a result, higher variability of drop masses had occurred. With using the semi-automated prototype, the preparation volume had no impact on the final drop mass. On the other hand, higher variability of doses was noted for studied suspension eye drops.

