Abstract: In this paper, the optimization of the sowing machine straw cereal distribution with centralized dosing consists in finding an optimum combination between the main control parameters of the distribution device, respectively between seed flow ratio of the dosing device and the machine working speed, to achieve the seed rates required by the agro-technique for each type of crop. Based on information provided by the literature was developed a mathematical model that describes the sowing rate variation depending on the working speed of the seeding machine and the active length of the groove dosing device, the model being validated following the experimental data. An algorithm has been established for choosing the optimal combination between the main setting parameters of the distribution device, with examples for wheat seeds.

Keywords: optimization, sowing rate, the distribution device

Cuvinte cheie: optimizare, norma de însămânțare, aparat de distribuție