A SIMULATION MODEL EQUIPOTENTIAL SURFACE TENSION INDUCTOR MAGNETIC FIELD WITH VARIABLE RADIUS NAVYTKY

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Electrotechnology preplant tillage crop seeds in the electromagnetic field generated in an inductor with variable radius navytky cone on a frame, it is necessary to model theoretically. The models will determine the technological parameters of cultivation that ensure a stable harvest allowances.

Known theoretical and experimental models pictures of the field in the working area inductor that has a continuous single-layer navytku. Models paintings fields formed in an inductor with variable radius navytky on a frame truncated cone, in scientific writings were found.

The purpose of research - theoretically and experimentally investigate the pattern of the electromagnetic field in the working area of the inductor with variable radius navytky cone on the frame and check them for adequacy.

Materials and methods of research. Research based on the theory of electromagnetic field DK Maxwell, the superposition principle of electromagnetic fields from different parts navytky. Methods simulation and measurement of the induction of the magnetic component of the electromagnetic field.

Results. The theoretical model of the magnetic field of the inductor with variable radius navytky cone on a frame, and theoretical models of magnetic field and equipotential surfaces inductor with variable radius navytky on a frame truncated cone.

Building a graphic model equipotential surfaces calculated (theoretical) values of vector magnetic field in the working area of the inductor with variable radius navytky cone on a frame made in the field of application Wolfram Matematuka 6.

Verifying the theoretical simulation model of the adequacy of similar experimental simulation model implemented by the method of the null hypothesis and through our program in the field prohramWolfram Matematuka 6.

The program introduced the theoretical value of the four key points of the simulation model 21 (values are not repeated) and similar experimental value.

Tabulated values Student t-test at 5% -th level when the number of degrees of freedom for this case is $t_{0.05}$ = 2,38, and for the calculation t_{fak} = 2.56.

Conclutions

Since the condition t_{fak} = 2,56 $t_{0.05}$ = 2,38 theoretical simulations are considered adequate with the experimental data.