UDC 631.53.027.34

ELECTROTECHNOLOGY OF LASER PRESOWING SUNFLOWER SEEDS

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In the article are led preconditions of determination of the technological mode of laser presowing treatment of seed of sunflower by the method of the mathematical planning of complete factor experiment.

For conducting of experiment of the technological mode of laser presowing treatment of seed of sunflower, factors were select and levels of their varying.

With the purpose of reduction of general volume of experiments was done an experiment from sifting from.

The matrix of planning of experiment from sifting from of the second order is based on three factors.

It allows to get linear equalizations of regression in a general view.

After the conducted experiments there are the determined coefficients of regression of every factor and error of experiment.

After the criterion of Kokhrena are the determined dispersion of reproduction, on the basis of which it is possible to say that the reproduced of experiments is good.

After a criterion of the St'yudenta are the determined coefficients of regression of polynomial.

For determination of adequacy of model, comparison of critical and calculation value of the meuning Fyshera criterion is conducted. Thus, it is exposed, that the got nonlinear model is adequate, that is meun it can be used for construction of region of optimum and determination of its co-ordinates.

The given equalizations of model, that describe influence of factors on the criterion of optimization allowed to defined the technological mode of laser presowing treatment of seed of sunflower, namely: amount of days from the irradiation to beginning of determination of sowing qualities of seed - 8,47 days; amount of impulses - 1931 things; closeness of energy - 3,25 mVт/cm^2.

The graphs, which give possibility to define dependence the changes of sowing qualities of seed, from the closeness of energy, amount of impulses and days on the irradiation to beginning of determination of sowing qualities of seed, are built.