Research of the quality of work with decontamination device on wheat seeds

KEHAYOV D., TRIFONOV A. - Agriculture University, Plovdiv, Bulgaria

An important agrotechnical method protecting from yield reduction and grain quality preservation is the pre-sowing decontamination of seeds. The aim of the present work is to determine the level of coverage of seeds with decontamination agent and damaging the seeds due to the operational machine bodies. Methods for determination of those indicators when working with decontamination device have been worked out. The data from the experiments conducted show that the feeding conveying screw has greater influence upon the seeds. At the mixing conveying screw damages are ascertained at the highest productivity. From the factor analysis conducted it was ascertained that 62.6% from the damage of the seeds is due to the change of capacity (productivity), and 36% is due to the difference in operational bodies and their interaction with the seeds. Regarding the level of coverage a regression model is obtained, from which it is obvious that the level of coverage is reduced by increasing the productivity. In conclusion I could say that the examined machine has good indicators for quality of work.