Abstract
An optimization model for yield and fertilizer efficiency was established by many years and sites experimentation of N, P and K fertilizer combination for maize production on many soils. Improving the technical and economic results at the level of any crops represents an objective necessity and can be achieved, in good conditions, through a continuous process of optimization and re-optimization of the main economic activities. We have committed to present a few aspects connected to the optimization of sour cherry tree culture technology in this paper, using different kind of production factors. The research subject is necessary in order to find out the problems raised by the culture of the sour cherry tree and their solving using production functions method. The production functions show the dependency of the acquired crops in relation to the level of use of different production factors. When the farm possesses sufficient quantities of paper fertilizers, the problem which rises is the establishment of the doses corresponding to the maximum technical and the economic optimum. This can be realized by differentiating the doses of fertilizers, the combination reports, as well as the kind and type of the fertilizer. It is very important to mention the methods and calculation techniques when making on optimization study, because it gives the possibility to estimate the level in which a studied phenomenon is comprised and analysed.

Key words: factors, production, optimization, technology