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THE ECONOMICALLY OPTIMAL DRAINAGE HYDROMELIORATION TAKING INTO ACCOUNT THE ECOLOGICAL VALUE OF THE SITES SIMILARNATURE

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In this article the author discusses the new features in information and automation technologies in land reclamation. Production is carried out in automatic mode according to technical and economic criteria.

The method of management of processes of melioration by economic criterion is offered. As a result of its implementation in the course of drying hydromelioration economically optimum depth of the channel taking into account data on ecology, according to climatology of the site of the territory chosen for melioration automatically is established. The economic sign of prime cost reduced on the structure can rather fully, with the acceptable accuracy, to define flowing during action of technological process (for example, process of drainage of lands in hydromelioration) resultant economic efficiency of production. It taking into account other components of profit just is also defined by a planning department and accounts department of any, including the hydromeliorative enterprise upon termination of the main production of digging of drainage channels or accompanying it process. However such definition of this criterion after the end of technological process obviously is late: during process it wasn't applied, and carrying out process happened by some other criteria. Ordinary they are more evident and simple on structure and essence, and are generally based on professional intuition. Therefore in practice often there are big economic losses of the production which isn't operated on its natural purely economic accepted sign.

The type of mathematical dependence of components of prime cost for carrying out imitating computer modeling is offered. The graphic illustration of implementation of economically optimum drying hydromelioration taking into account the ecological value of sites of lands is given. The function chart of a control unit is given by depth of the meliorative channel. On a signal of a zadatchik of a

signal of number of a site for drainage or for complex melioration (a zadatchik of a geographical arrangement of a site in a climatic and soil zone of the territory of the country) the site gets out. Ecological losses and losses of a crop when carrying out drainage or complex melioration are connected with an arrangement of this site. These losses are described by mathematical quantitative dependences with the accepted coefficients at the meaning mathematical sizes of the influencing influence factors. Numerical quantitative values of these coefficients (a crop and losses of ecology) are set in corresponding the zadatchikakh. Calculated values of average annual losses are also influenced by average annual values of temperature of external air and intensity of sunlight. They are set by a zadatchik of the predicted value of average annual temperature and a zadatchik of the predicted value of average annual insolation (sunlight) and formed in the shaper of signals of dependences of costs of ecological losses, dependences of cost of losses of a crop on the created signal of depth of the hydromeliorative drying channel at drainage and at complex melioration. Summation of constant costs of service of capital investments in the equipment happens by means of a zadatchik of a signal of depreciation charges, assignments on repair and on renovation of two types of the equipment for drainage and for complex melioration. The control unit develops signals of optimum depths of channels at only drainage and at complex melioration.

In the presence of exact mathematical models of losses on a crop, on ecology, on energy on carrying out melioration the exact best management of technological process automatic economically of the assumed melioration air, whether it be simple drainage, or difficult complex melioration is made. In the latter case at the expense of the raised expenses of energy the highest productivity at the acceptable territory ecology level is reached.