IFMA 16 Poster Abstracts

Logistics Management as an Assisting Tool of Sustainable Development of Farms

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The idea of sustainable agriculture cannot be limited to maintaining in the natural environment balance but should be understood in a wider context of social welfare. It seems that one of the ways of creating internal balance in farms could be to introduce the concept of logistics to the management sphere. This concept concentrates on optimizing material and information flows, both inside the farm and over the entire supply chain. It follows that logistics by the co-ordination and integration of phases and processes should be treated as a tool which includes potential possibilities of sustainable development. The logistics cost and particularly its complex approach are very important in optimizing the process. But there are some difficulties in the identification, evaluation of the level and structure of this type of cost, because of applying the traditional cost accounting (TCA). Taking the above into consideration, the identification and the evaluation of the level and structure of logistics costs in farms in process aspect was the purpose of the research. Based on the investigations, three kinds of logistics processes affecting sustainable development of farms, were identified: passages between farm buildings and fields, passages on the fields, loading and unloading processes. Optimization of such processes could assist the realization of strategic aims of sustainable development of farms. The introduction of mechanization in such logistics processes as loading and unloading, caused a reduction of human labour input (by around 50%) and an improvement of its quality. Conducting research on the optimization of logistics costs in farms, including the share of this kind of costs in the total production costs (38%-47% in the analyzed farms), seems to be fully justified and could give a marked increase of farm income.

Keywords: logistics management, farms, sustainable development, logistics processes, logistics costs.