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VERIFICATION OF AN INNOVATIVE LOGISTICS-BASED COSTING MODEL FOR AGRICULTURAL ENTERPRISES IN A PROCESS APPROACH

Abstract:

This paper presents the main assumptions and functionalities of an innovative logistics-based costing model dedicated to agricultural enterprises. The model was verified in purposefully selected farms of various acreage engaged in crop or livestock production. The use of an innovative logistics-based costing model allowed to determine the basic logistics cost ratios both at a general level and in a process-based approach (by stages and by basic logistics processes), taking total/actual process costs into account. In livestock farms, the ratio of logistics costs to total costs was twice as high as in crop farms, and ranged from 30.4% to 42.9% of total costs. In crop farms, the corresponding ratio varied from 15.8% to 23.6%. The analysis of logistics costs by basic logistics processes shows that the largest difference in ratios between the farms was observed for warehousing processes. In livestock farms, the relevant ratio was three times higher than in crop farms.

Keywords:

logistics-based costing model, agricultural enterprises, model verification, process approach

JEL Classification: C81, M40, Q14