ECONOMIC EVALUATION OF VARIOUS TECHNOLOGIES OF CATTLE SLUDGE APPLICATION ON MEADOWS SITUATED ON PEAT-MOORSH SOILS

Key words: economic evaluation, fertilisation with sludge, grasslands, peat-moorsh soils, sludge utilisation

Summary

Model method was used to evaluate six variants of fertilisation of peat-moorsh meadows: one variant without fertilisation, the second with mineral fertilisation and the remaining four – with cattle sludge fertilisation at various doses and in various agrotechnical terms. The study was aimed at economic evaluation of various technologies used on most frequent in Poland permanent grasslands situated on peat-moorsh soils. Analysis was made for a 20 ha family farm and for strictly defined technology of hay harvesting. Detailed analysis involved the demand for labour, tractors and other machines. There was one criterion used in the evaluation – production costs of a fodder unit destined for inner consumption.

The lowest production cost of fodder unit was obtained when sludge diluted with water in the proportion of 1:0.5 was applied in spring (first decade of April). Fertilisation with sludge appeared less economically effective than mineral fertilisation. However, due to the need of sludge utilisation, its application in fertilising meadows is justifiable. The difference in production costs between the two technologies equals the cost of sludge utilisation. There is probably no other, more effective way of sludge utilisation in a farm.

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