POSSIBILITIES OF AGRICULTURAL GRASSLAND MANAGEMENT IN CONDITIONS OF LIMITED DEGRADATION OF PEAT-MUCK SOILS

Key words: grasslands, mineralization, peat-muck soils, sub-irrigation, subsidence

Summary

The aim of this study was to demonstrate under productive conditions a possibility of agricultural peatland utilisation providing the maintenance of appropriately high ground water level to prevent from soil degradation. The study was carried out in five sites of a reclamation object Góra in the Narew River valley, Podlaskie Province, reclaimed in 1976. Water level in these sites was differentiated in the years 1985–2008. In two sites the ground water table was kept at a level recommended in the project; in three other it was higher because of maintaining water level in ditches at a depth of 30–40 cm by sub-irrigation and by limiting water drawdown in ditches to a maximum depth of c. 60 cm below ground.

It was shown that at high water level preventing from soil subsidence, maintaining balanced input and output of organic matter and soil water capacity the moderately intensive meadow and pasture management was possible in soils of periodically drying (BC) and drying (C) soil-moisture prognostic complexes.

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