Behavior of underground drainage after 30 years of functioning, in the Baia experimental field of agricultural drainages, Suceava county

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The exploitation of the output of agricultural land, and of the surfaces of arable land in particular, occurred in time, via works of draining off, embankment-regulation, underground drainage, prevention of soil erosion and other works. In the Suceava county, according to the A.N.I.F. data, there is a surface of 44.904 ha with draining off works, of which 27.455 ha with drainage works. The network of draining off channels is 1875 km long, and the underground drainage network made up of suction and collection drains has a total length of 11.909 km. The findings of the research conducted in the pedo-climatic conditions of the water basin of the Moldova river showed that the modeling of the land in ridges, for the drains situated at a 20 m distance from one another, leads to the elimination of the humidity excess, similar to that for the drains situated at a 12 m distance. The use, as a filler material, of flax stems, irrespective of the thickness of the layer, is not recommended because of the reduction, in time, of permeability. However, their association with ballast ensures, even after 30 years of functioning, the best elimination of humidity excess. The average water content of the soil 1-2 days after rain has the smallest value in the vicinity of the drain lines, due to the water inflow created towards the drain filter and to the reduction of the permeability of the filler layer, in 30 years of functioning. 10-15 days after the last rain, the average water content decreases from the middle of the distance between the drains to the drain line.