



## Method and equipment to protect sloping land against soil erosion

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Water and soil resources, which are limited and subjected to a continuous process of degradation under the influence of natural factors or inappropriate human interventions, cannot be managed efficiently sustainable management is carried out, through techniques meant to prevent and diminish this process. Estimation, exploitation, protection and improvement of natural resources has an essential contribution in improving safety and security of agricultural and food production. For sustainable agriculture, protecting agricultural sloping land (which in Romania represents 49% of the total area under crop) against soil erosion and enhancing the value of rainfall water conduce to preservation of fertility features of soil, thus resulting in significant growth of production.

On this type of land the phenomenon of soil erosion damages seriously the fertility potential because of alluvial drainage. As working method we propose execution of partitioned furrows, tracing the general direction of the level curve, of preset length of the canal reach, related to the gradient value and the steady infiltration speed of the respective textural category, which are an artificial obstacle against excess water from downfalls, thus making a significant contribution to mitigation of soil erosion and rendering this water available for nutrition needs of plants.

To this effect, we designed and developed a specialized machine, equipped with a partitioning device with mechanical control, which will allow execution of preset lengths of the canal reach; we also developed an appropriate working technology.