

FACTSHEET RISK REDUCTION MEASURES

Proposal of the interaction element - Baulk near Drhovle (Pilot area Písek)

Where was it implemented?

Village Drhovle, District Písek (South Bohemia, Czech Republic)

Fields of action

• Farmland

Related to measure from the catalogue of measures

- Baulk (no 15 / A04)
- Field subdivision (no 5 / A17)
- No or low tillage incl. mulching and direct seeding (no 7 / A03)

Area characterisation

- Area type: undeveloped area
- Landscape type: farmland

Problem

In the event of torrential rains, soil erosion occurs and thus the cultivated land is degraded.



Study of runoff conditions including design of possible conservation measures in pilot areas (Source: The Research Institute of Water Management T. G. Masaryk, v.v.i. (VÚV)

Description and aim

The site is a large block of farmland where heavy rainfall can cause erosion washes. These can then cause damage to the drainage system of the road or flood the road itself. On this piece of land the Research Institute of Water Management T. G. Masaryk, v.v.i. (VÚV) has designed a baulk as a flood protection measure. The baulk limits the soil block and thus helps to increase ecological stability. Furthermore, VÚV proposed a protective soil management (especially sowing into a protective crop, stubble, mulch or post-harvest residues). This often accompanied by limited tillage.

The roughened surface of agricultural land slows down surface runoff and improves the conditions for infiltration of precipitation. For the implementation of anti-erosion agricultural technologies, it is recommended to use post-harvest or intermediate crops, which are partially incorporated by soil cultivators.

Effect of measure

The measure reduces surface runoff and reduces damages of farmland. It is also a measure that mitigates wind erosion. Overall, this improves the quality of farmland and develops natural values.

Description of implementation

Effect horizon:	Involved stakeholders:
long-term	land owner
Implementation:	Initiator / responsible
proposal - not implemented	private investor



Lessons-learned	
Main success factor: Ensuring flood protection of the site with permanent effect.	Main challenge: Suitable design of the baulk - its width, height, slopes, planting options, types and density.
Synergies / beneficial aspects: Soil protection and thus better yield possibilities. Increasing the ecological stability of the landscape.	Conflicts / Constraints: Range of terrain work (landscaping), financial costs.
Key message to others starting with a similar task	
When cultivating agricultural land, it is important to think about the appropriate limitation of soil blocks to	

ensure ecological stability of the landscape. This limitation can be done by building a baulk and should be supplemented by planting shrubs or trees. The measure can be costly, but improves the quality of the farmland and will also support future generations of owners in the long term. For sloping plots, it is also important to choose the appropriate agricultural technical tillage.

Contact

The Region of South Bohemia, The Section of Territorial Planning <u>www.kraj-jihocesky.cz</u> Contact list: https://www.kraj-jihocesky.cz/ku_tseznam/os?id_os=94





Section of the Spatial plan Drhovle (source: The Region of South Bohemia, The Section of Territorial Planning)



Proposal of flood control measures to protect the agricultural land - baulk (source: The Research Institute of Water Management T. G. Masaryk, v.v.i.)



Ortophoto location (source: Mapy.cz)



Proposal of the baulk designed in Study of the applicability of flood control measures into spatial plans (source: Architectural Studio Štěpán)



View of sloping farmland from southwest (source: Mapy.cz)