Justification of the phytoremediation technology for slopes of overburden dumps by composite briquettes

Kyrylo Zvoryhin[1], PhD student, **Oleksandr Kovrov**[2], Professor, Department of Ecology and Environmental Technologies

Wild cereals species for phytoremediation

Hordeum murinum

Bromopsis inermis

Avena fatua

Bromus japonicus

Ailanthus altissima

Composite soil briquettes and vegetation tests on composite soils

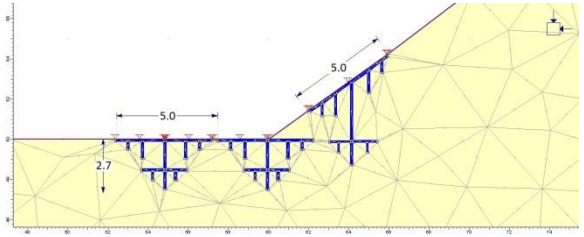
Briquettes as a mix with soil, clay and seeds

Vegetation growth (14 days)

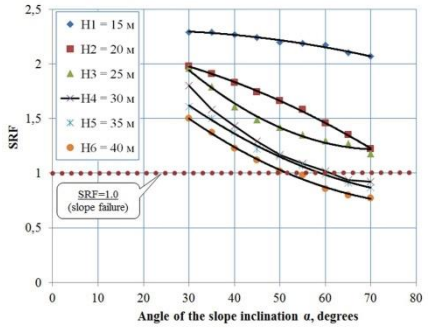
Specimens	Ingredients, g		
	Vermicompost	Soft loam	Seeds
1	-	50	2
2	4	44	2
3	10	30	2
4	20	20	2
5	30	10	2
6	40	5	2

Conclusion: The composite briquettes with moderate content of soil and clay gives the most intensive plant growth that could be used for phytoremediation purposes.

Reinforcing properties of plants on natural and technogenic slopes



Application of plants and trees for reinforcement of natural and technogenic slopes



$$SRF = \frac{Stability\ forces}{Shear\ forces}$$

Safety Factor for slopes reinforced by lignosa or plants rootage

Contacts: Department of Ecology and Environmental Technologies, DUT, D. Yavornytskogo 19, Dnipro
E-mail: [1] zvoryhin@gmail.com
[2] kovralex1@gmail.com

"EcoMining: Development of Integrated PhD Program for Sustainable Mining & Environmental Activities"