

Using Plants of *Sedum* spp. in Biological Reclamation of Waste Rock Dumps

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General characteristics of the *Sedum* L genus

Genus *Sedum* spp. (family *Crassulaceae*) – perennial succulent groundcovering grasses, growing in Eurasia, Africa. There are about 500 species of *Sedum* L genus. Ukrainian flora counts 17 species of *Sedum* L genus of which the most common (typical) is *Sedum caustic* *Sédum acre*. It is widely used in phytomelioration and greening rooftops.



Sedum deflected (*Sedum reflexum*)

Advantages and disadvantages of using *Sedum* L species for reclamation

Advantages

- Winter resistance
- Dryness resistance
- Grows on poor rocky soils
- Has ability to grow over the surface of the substrate
- Environmental plasticity
- Pest resistance

Disadvantages

- Relatively shallow root system
- Relatively slow growth



Sedum caustic on sandy soil around Dnipro

Conclusion: Local and introduced species of *Sedum* spp. are perspective for phytoremediation of waste rock dumps.

Experience of using *Sedum* L genus species for landscaping of waste rock dumps in Ukraine

Theme of landscaping waste rock dumps using *Sedum* L genus species for many decades have been occupied by Donetsk and Krivoy Rog botanical gardens. Some of the local introduced species have been recommended for planting on waste rock dumps: *Sedum acre*, *S. spurium*, *S. hybridum*, *S. spectabile*, *S. album*, *S. aizoon*, *S. sexangulare*, *S. kamtschaticum*. [Berezkina 2003, Bashkatov 2002]. Spring planting is the most effective on waste rock dumps.



Cultured species of *Sedum* spp.