

## SILICEOUS MIXTURES FOR SOIL REMEDIATION



Experiment. Sugar beet growth from seeds dressed and incrustated with natural minerals



Reference. Sugar beet growth from seeds dressed and incrustated with standard preparation

### Areas of Application

The mixtures can be used in different soil and climatic zones in order to:  
increase the fertility of sandy soils;  
detoxify soils contaminated with heavy metals, radionuclides, and organic compounds;  
retain moisture in soils with various characteristics; provide soil ecosystem with self-healing capacity; adapt different species of plants to drought

### Specification

The dosage is 300–600 kg/ha depending on mixture composition, soil properties, and biological characteristics of plants. The use of mixtures is aimed at optimizing and balancing the soil processes by controlling ratio between mono- and polyciliceous acids; retaining moisture in the soil; stimulating plant growth and development; and improving plant adaptation to any stress factors

### Advantages

The mixtures can be used for producing recycled materials and mixtures of silicon minerals. The availability of raw materials for the production of silicon compounds almost everywhere and a simple technology of production make this product competitive, cheap, and environment friendly. The mixture is applied using standard equipment and technology for adding small amount of fertilizers

### Stage of Development. Suggestions for Commercialization

IRL8, TRL7  
The mixture is manufactured upon request

### IPR Protection

IPR3

### Contact Information

*Jamal B. Rakhmetov*, M.M. Gryshko National Botanical Garden of the NAS of Ukraine;  
+38 044 285 01 20, e-mail: jamal\_r@bigmir.net