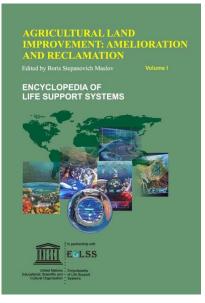
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AGRICULTURAL LAND IMPROVEMENT: AMELIORATION AND RECLAMATION



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- 4.4. Estuaries and lagoons
- 4.5. Seagrass beds
- 4.6. Coral reefs
- 5. Conclusion

Biological and Agrotechnical Amelioration

I.G. Zykov, All-Russia Scientific-Research Institute of Agro forest Reclamation, Volgograd, Russia

- 1. Introduction
- 2. Climatic factors unfavorable for an agricultural production
- 3. Erosion and deflation of soils
- 4. The Influence of PFS on climatic factors, erosion and deflation
- 5. Kinds and destination of protective forest stands, their structure, form and placing

Goals and Demand

I.P.Svintsov, Department of Water and Forest Reclamation and Protective Forestation, Russian Agricultural Academy, Moscow, Russia

- 1. Introduction
- 2. Greening of agriculture
- 3. Realization of biological and agro-technical land improvement
- 4. Use of the grounds without radical land improvement
- 5. Phytomelioration and forest reclamation
- 6. Combating erosion, use of eroded land, and recultivation
- 7. Soil protective systems and improvement of soils subject to erosion and deflation
- 8. Fertilizers

Phytomelioration

O.N. Antsiferova, All Russian Research Institute for Agriculture Use of Reclaimed Lands, Kalinin, Russia.

- 1. Introduction
- 2. Phytomelioration: the concept and sphere of application
- 3. Phytoclimatic zones
- 4. Phytomelioration for protection of soil from water and wind erosion
 - 4.1. Soil-protective role of vegetation
 - 4.2. Woody vegetation
 - 4.3. Long-term grassland
 - 4.4. Phytomelioration actions
- 5. Phytomelioration for reinforcing of ravines and gullies
- 6. Phytomelioration for fastening and uses of sand
 - 6.1. Principles of phytomelioration works on sand
 - 6.2. Typology of phytomelioration conditions of mobile sand
- 7. Phytomelioration on irrigated and drained land
- 8. Phytomelioration for lowering of water table and reduction of infiltration
- 9. Use of afforestation for protection of agricultural crops from unfavorable climatic conditions
- 10. Phytomelioration with recultivation of the ground
- 11. Afforestation for aesthetic improvement
- 12. Halophytes introduction and selection work

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Agrotechnical Melioration and Fertilizer

V. F. Ladonin, D. N. Pryanishnikov All-Russian Research Institute of Fertilizers and Agricultural Soil Science, Russian Federation, Russia

- Agroeconomic estimation of landscapes and soils. 1.
- Organisation of agricultural crops cultivation. 2.
- 3. Optimisation of crop rotation systems in agricultural landscapes.
- 4. Optimum Ratio Between Landscape Elements (plowland, meadow, forest, reservoir)
- 5. Agroecological principles and methods of soil processing.
- 6. Management of organic substance content in soil, regulation of microbiological processes.
- 7 Maintenance of soil with nutritious elements; systems of macro- and microfertilizers.
- 8. Peculiarities of processing of soil polluted with heavy metals and radionuclides.
- Agrotechnical protection of plants from harmful organisms (weed, harmful insects and diseases). 9
- 10. Forecast of agrotechnical melioration development and fertilizers applications in the Twenty-First century.

Conservational Soil Treatment

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Volodin V.M. (deceased), All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia

Cherkasov G.N, All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia Rozhkov A.G., All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia Pykhtin I.G, All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia

- 1. Introduction
- 2. Anti-Erosion Organization of Territory
- 3. Rational Placing of Agricultural Crops
- 4. Soil-Protecting Water-Absorbing Processing of Soil
- 5. Making Meadows
- 6. Forest Meliorative Measures
- 7. Strip Agriculture
- 8. Retention of Surface Flow
- 9. Full Processing of Soil with Stubbles
- 10. Regulation of Small River Flow and Surface Flow
- 11. Artificial Structure-Formers
- 12. Artificial Irrigation of Soil

Erosion and Deflation Control

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Cherkasov G.N, All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia Rozhkov A.G, All-Russian Research Institute of Agronomy and Soil Erosion Control, Kursk, Russia

- Introduction 1.
- Soil Erosion 2.
- 3. Soil Deflation
- 4. Field-Protecting Anti-Erosion Forest Belts
- 5. Melioration of Gully-Ruined Lands
- 6. Hydrotechnic Anti-Erosion Constructions
- Bed and Bottom Constructions 7.

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