

ORNAMENTAL ARBOREAL PLANTS OF SOLNECHNAJA DOLINA
TOWNSHIP (SOUTH-EAST CRIMEA)

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Green spaces have a diverse positive influence on the climate of the city, town, village. There is no doubt that in the near future the development of industry, agriculture and recreational potential of the Crimean peninsula will entail the development of the infrastructure of settlements, which in turn will require large-scale works on gardening. Accordingly landscapers will require planting material of ornamental trees and shrubs, well adapted to the soil and climatic conditions of the region. Analysis of the current state of trees and shrubs in the studied settlement will help scientists to offer a scientifically grounded assortment of ornamental plants, taking into account the availability of new hybrids, varieties and forms, as well as modern trends in green building. The aim of this work is to assess the condition of green spaces in Solnechnaya Dolina and propose methods for their optimization.

Township Solnechnaya Dolina is located 12 km east of Sudak in the Kozskaya Valley, surrounded by the picturesque mountain peaks Parsuk-Kaya, Eltigen, Tokluk-Syrt, 4 km from the sea and about 1.5 km to the south of Alushta-Theodosia highway. The present state of ornamental trees and shrubs of Solnechnaya Dolina are investigated. We determined the species composition and the form diversity of dendroflora, assessed the status of species and forms of trees and shrubs, the frequency and methods of their use in the surveyed objects.

The composition of species has been defined and their taxonomy structure analyzed as well as their frequency of the appearance in different green areas. Dendroflora of Solnechnaya Dolina includes 73 species and 9 garden forms related to 56 genus of 34 families. The leading role in taxonomic structure belongs to such families: Rosaceae (15 species), Oleaceae (6 species), Fabaceae (5 species). The rest families include 1–4 species. In Solnechnaya Dolina there are no typical for another populated localities of South-East Crimea trees and shrubs as: *Cercis siliquastrum* L., *Chaenomeles japonica* (Thunb.) Lindl., *Juniperus excelsa* M. Bieb., *Mahonia aquifolium* (Pursh) Nutt, *Morus alba* L., *Prunus laurocerasus* L. Studying the frequency of the appearance species and forms showed, that 50% of arboreal plants noted by single specimens: *Campsis radicans*, *Cedrus atlantica*, *C. a.* 'Glaucal', *C. deodara*, *Forsythia* x *intermedia*, *Fraxinus angustifolia*, *Gleditschia triacanthos*, *Prunus duclis*, *Pyracantha coccinea*, *Taxus baccata*, *Wisteria sinensis* and some others. But they are common for greenery of other South-East Crimea urban territories. This fact is probably connected with some subjective reasons. The above listed species of trees and shrubs are ecologically resistant and sufficiently well adapted to local soil and climatic conditions, thus their application can be extended.

The life forms of studying plants are the following: leaf trees – 35 (42,7 %), leaf shrubs – 19 (23,2 %), conifer trees – 15 (18,3 %) species and garden forms. Evergreen shrubs are not numerous (5 species) as well as lianas (4 species).

Dominant species in all green areas of Solnechnaya Dolina are: *Platycladus orientalis*, *P. o.* 'Globosa', *Cupressus arizonica*, *C. sempervirens*, *C. s.* 'Pyramidalis',

Styphnolobium japonicum, *Prunus cerasifera*. Most (85,4 %) of trees and shrubs are in good state. The rest suffered from low temperatures in winters (*Ficus carica*, *Punica granatum*) and lack of moisture (*Acer negundo*, *Cedrus atlantica*, *C. a.* 'Glauc', *Koelreuteria paniculata*, *Lonicera caprifolium*, *P. pungens*, *P. p.* 'Glauc'). Boxwood (*Buxus sempervirens*) is everywhere infected by pests and diseases.

The township Solnechnaya Dolina is surrounded by a picturesque mountain landscape, so all the objects of green construction should be its logical continuation. The assortment of trees and shrubs must be environmentally and physiognomically comply with that task. Suitable are the trees of native (Crimean) flora: *Juniperus excelsa* M. Bieb., *Fraxinus angustifolia* Vahl. subs. *angustifolia*, *Pinus brutia* var. *pityusa* (Steven) Silba, *Pistacia mutica* Fisch. et C.A. Mey., *Cotinus coggygria* Scop., as well as *Platanus x acerifolia* Willd., *P. orientalis* L., *Celtis australis* L., *C. glabrata* Steven ex Planch., *Gleditschia triacanthos* L. and others.

Keywords: dendroflora, ornamental trees and shrubs, greenery, Solnechnaya Dolina, South-East Crimea.

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