

**ESTIMATION OF SUCCESSFULNESS AND PERSPECTIVES OF
INTRODUCTION, DEGREE OF ACCLIMATIZATION OF GENERIC
COMPLEX FORTYTHIA VAHL AT THE ARBORETUM OF
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Modern requirements to amenity planting in various functional sites include testing and domestication of plants having arboriculture throughout all vegetation period or at some vegetation stages. *Forsythia* genus representatives, introduced to National Gryshko Botanical Gardens arboretum (NGBGa) of the NAS of Ukraine are among those meeting the above requirements.

To assess introduction success and prospects of plant types, varieties, hybrids and cultivars of *Forsythia* genus to conditions in the city of Kiev, we used the method of integral numerical estimate of viability and introduction prospects of arboreous plants on the basis of sighting (visual studies) by P.I. Lapin, S.V. Sidneva (Lapin P.I., Sidneva S.V., 1973), as well as acclimatization level assessment method by M.A. Kohno, O.M. Kurdiuk (Kohno M.A., Kurdiuk O.M., 1994).

Forsythia collection in NGBGa is created through the method of genus complexes by F.M. Rusanov (Rusanov F.M., 1971). The collection presents a monoculture garden containing four types of plants, two varieties, two hybrids, and nine cultivars. Major stocking at this collection plot was conducted from 1946 to 1952 (Liapunova N.A., 1962, Liapunova N.O., 1962). It was here that for the first time in Ukraine, *F. giraldiana*, *F. suspensa*, *F. sus.* 'Decipiens', *F. × intermedia* 'Spectabilis' plants were tested and *F. saxatilis* (= *F. japonica* var. *saxatilis*) plants were cultivated.

Study of prospective introduction reveals that all *forsythia* plants introduced into NGBGa demonstrate regular burgeons, satisfactory tolerance for winter conditions, and some plants (*F. sus.* var. *sieboldii*, *F. sus.* var. *fortunei*) bring similar seeds in the city of Kiev conditions. Plants of other sippes do not bring seed even though successfully reproduce vegetatively, so all of them are included into the group of prospective plants to be included into culture.

Data assessment of successful acclimatization of *Forsythia* family plants introduction into NGBGa demonstrate that the majority of *forsythia* plants introduced into NGBGa are well acclimatized, and plants *F. × in.* 'Spectabilis', *F. ovata*, *F. ov.* 'Tetragold', *F. sus.* var. *fortune* и *F. sus.* var. *sieboldii* are completely acclimatized.

Forsythia genus plants in arboretum of the National Botanical Gardens collection represent all areas of their natural habitat. Viability indicators of studied plants prove their high potential of the plant adaptation capabilities. All studied plants are successfully acclimatized in arboretum conditions of the National Botanical Gardens, and their acclimatization level is good or complete. Therefore, all types, varieties, hybrids and cultivars studied by us are recommended for further introduction.