

RUSSIAN LILAC CULTIVARS TO FLOURISH IN FINLAND?

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Introduction

- Common lilac (*Syringa vulgaris* L.)
 - one of the most essential landscape plants throughout the whole cool and temperate region
 - also in Finland a very popular and traditional ornamental
 - mostly single-flowering
 - the official flower of Helsinki since 1993





Introduction

- Russian winter hardy cultivars
 - potential to increase diversity of lilacs and even still upgrade the status of common lilac in Finnish horticulture
 - beautiful panicles in diverse colors
 - double-flowering forms
 - large flowers



Introduction

- Project "Syringa vulgaris genetic resources" of Academy of Finland at MTT Agrifood Research Finland (subsequently Luke) and University of Helsinki
 - Dr. Elena Lyakh in Finland in 2012-2013
 - Micropropagation of Finnish and Russian common lilacs
 - DNA-fingerprinting of common lilacs
- Project "Syreenimaja - Lilac Arbour" financed by Nikolai and Ljudmila Borisoff Foundation
 - On-going 2016-2018 at Luke
 - Testing Russian common lilac cultivars for suitability for Finnish climate



Materials and methods

- The cultivars studied are
 - 'Altaiskaya Rozovaya'
 - 'Daphna'
 - 'Fioletoviy Ghigant'
 - 'Indiya'
 - 'Krasavitsa Moskvyy'
 - 'Krasnaya Moskva'
 - 'Kruzhevnitsa'
 - 'Nadezhda'
 - 'Ogni Donbassa'
 - 'Pamyat o S.M. Kirove'

One Finnish origin of common lilac, cultivar 'Liisa' was included to some of the Central Finland plantations as a local well adapted control (Photo: Saara Tuohimetsä)



Materials and methods

- In this on-going project the winter hardiness and survival of Russian lilac cultivars in the Finnish maritime climate is studied
- The freezing tolerance of the cultivars was tested
- Small scale plantations were made using plants derived from micropropagated material at several locations in Finland representing old heritage gardens
 - Jyväskylä and Laukaa Central Finland 62° N, 25° E
 - Helsinki Southern Finland 60° N, 25° E



Materials and methods

- Jyväskylä
 - Aallonpuisto, park named by architect Alvar Aalto at University of Jyväskylä
 - Gummerus, publisher company
 - Keskisuomalainen, media company
 - Schauman castle (built as factory leader apartment in 1924)

- Laukaa
 - Järvilinna, art center
- Helsinki
 - Viikki manor park at University of Helsinki







Results

- The preliminary results have shown that the Russian lilacs have potential to grow in Finland
 - At least cultivar 'Daphna' has suffered from winter injuries
- The freeze testing results indicate parallel that the beautifully flowering 'Daphna' might anyway not be the best lilac option for example for the Finnish nursery production
- In the Finnish climate the growth may terminate temporarily, but continues after a while.
 - Therefore, unripen shoots are susceptible to winter injuries



Results

- The flowering lilac cultivars have shown survival for at least over a few winters at their growth locations
 - at Helsinki since 2013
 - at Laukaa since 2014/2015
 - at Jyväskylä since 2016





- 'Fioletoviy Ghigant' flowering at Luke Laukaa on 2.6.2016 (on the left) and 'Pamyat o S.M. Kirove' (below) in 2017



Results

- Monitoring leafhopper *Iguttetix oculatus* was included to the aims of this project
- There were leafhopper symptoms on the studied lilacs both in Southern and Central Finland in 2016 and 2017
- The symptoms (small spots on the leaves on the right side of the picture below) were however not severe



Discussion

- The lilac plants in the plantings
 - are still young and
 - have not been flowering broadly before this spring
 - do not form statistic repetitions
- These Russian cultivars would bring lots of variation to the Finnish lilac assortment



Discussion

- There has been special interest for the light colored 'Krasavitsa Moskvyy', that was known in Finland by lilac enthusiasts already before this project
- Most of the cultivars are however totally new for Finland and promising at this point



Conclusions

- Lilacs that grow well at the Central Siberian Botanical Garden at Novosibirsk were introduced to Finland
- Both some winter injuries and on the other hand beautiful flowering have been observed regarding different cultivars
- Based on these results, cultivar 'Daphna' can not be recommended for use in Finland
- The start of growing and timing of the flowering varied quite much from year to year
- The plantings will continue growing at their locations in public and private gardens around Central Finland and at the University of Helsinki, as far as the plants survive alive
- Long-term observation can continue in later years



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Thank you!



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