

Report of activities conducted on noble hardwoods conservation in Serbia

Wild Cherry (*Prunus avium*)

In order to determine genetic variability of wild cherry (*Prunus avium*) and select “plus” trees for seed collecting, researchers from the Institute of Lowland Forestry and Environment have selected locations in Serbia for sample collection and GPS-positioning of selected “plus” trees.

Selection of locations was guided by natural distribution of wild cherry in Serbia. One of the basic informations was existence of registered seed sources (trees and groups of trees). After considerin available data, following locations for sampling were selected:

1. Western Serbia – Mt Zlatibor and Mt Golija
2. Centralna Srbija- Mt Jastrebac
3. Istočna Srbija - Mt Miroč
4. Northern Serbia (province Vojvodina) - Mt Fruška Gora

Selection of trees was done according to their phenotype (trunk straightness, branching, diameter and height), vitality and possibility of sampling. All of the selected trees were pictured, their phenotype was described, measured dimensions and GPS positioned. Short shoot leaf samples are taken for morphometric diversity analysis, and where fruiting occurred, frit samples were taken also. Fruit samples were used both for morphometric analysis and progeny tests.

On the field, samples were collected from following locations:

- I. Western Serbia:
 1. Mt Golija - location Jankov most-Dajići, altitude 1100-1200 m, from forests and private farmlands was selected 13 trees for sampling of leaves and fruits
 2. Mt Zlatibor - location Ljubiš, altitude 1200-1400 m, where from private farmlands sa privatnih parcela was selected 13 trees for sampling of leaves and fruits
- II. Central Serbia
 1. Mt Jastrebac - location Lomnička Reka, altitude 400-600 m, from forests and private farmlands was selected 13 trees for sampling of leaves
- III. Eastern Serbia

1. Mt Miroč - location Brza Palanka, altitude 300m, from forests and private farmlands was selected 13 trees for sampling of leaves

IV. Northern Srbija (province Vojvodina)

1. Jamena - altitude \approx 100m, Part of "Slavonian oak" basin, where from 10 trees were collected leaf samples
2. Mt Fruška Gora – location Bališa, altitude \approx 200m, where leaf samples of 10 selected trees were take. Also on this location was recorded natural offspring and small plantation.

Due to the periodicity in fruiting, fruit sampling was not feasible in all locations. Therefore, collecting on these locations will be conducted in future depending upon fruiting. Seeds collected in 2005 were stratified during winter and sown in spring of 2006 in greenhouse of the Institute's nursery. Offspring from seeds, together with natural offspring from location IV/2, was used for progeny testing for establishing of gene banks for grafting, micropropagation and root cuttings reproduction in 2007. selection of gentypes will be based on straightness, branching growth vigor and susceptibility to pests and diseases.

Micropropagation of superior genotypes did not give satisfactory results probably due to incompatibility with standard techniques used for propagation of poplars, elms and locusts. Further research in micropropagation of wild cherry will focus on development of technique.

Service tree (*Sorbus domestica*)

In year 2006 from four locations in Serbia were taken fruit and leaf samples of service tree (*Sorbus domestica*). Leafs and fruits will be used for morphometric analysis, while seeds will be stratified and sown in spring 2007 for progeny testing.