

Distribution of *Prunus spinosa* L. soil weed seed bank near railway

Milan BLAGOJEVIĆ, Nataša SAMARDŽIĆ, Branko KONSTANTINOVIĆ, Aleksandar KURJAKOV, Bojan KONSTANTINOVIĆ

University of Novi Sad, Faculty of Agriculture, Department for Environmental and Plant Protection, Trg Dositeja Obradovića 8, 21000 Novi Sad, Serbia, (e-mail: bojank@polj.uns.ac.rs)

Abstract

Determination of soil weed seed bank is of exceptional importance for study of weed population dynamics, as well as for planned weed control. In agro eco-systems, knowledge on soil weed seed bank in certain region provides better choice of cultural practices, as well as more rational herbicide use. Woody weed species *Prunus spinosa* L. has great ecological adaptability and therefore it is present in different ecological conditions. On the territory of the municipality Novi Sad, this weed species can be found near railways, on pastures and forest edges, between roads and fields, and along the canals network and the river waterway. During 2013 and 2014 soil sampling and determination of weed seed number was performed in stand of this weed species. The study was performed at three localities near Novi Sad (Futog, Kisač and Kać). Sieving of soil samples was done in laboratory conditions using copper sieves with mesh size of 0.25 mm, and sieved samples were dried at room temperature. This procedure was followed by separation of weed seeds from soil particles and their determination. Analysis of weed seed bank from the studied localities showed that in the top soil layer of 0-10 cm at locality there was the highest number of 718 seeds per m² of weed species *Prunus spinosa* L. At all three studied localities, seeds of weed species *Prunus spinosa* L. were concentrated in the first two layers of 0-20 cm. Seeds of weed species *Stellaria media* (L.) Vill., *Urtica dioica* L., *Amaranthus retroflexus* L., and *Chenopodium album* L., had the highest numerical dominance in relation to other weed species.

Key words: seed bank, *Prunus spinosa* L., bush, invasive species

sa2015_a0108