



Faculty of Agriculture  
University of Banja Luka



**XIII INTERNATIONAL SYMPOSIUM ON AGRICULTURAL SCIENCES**



# **BOOK OF ABSTRACTS**

27-30 May 2024, Trebinje, Bosnia and Herzegovina

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**Application of yarrow broth in order to reduce the intensity of infection of pot marigold leaf powdery mildew (*Podosphaera xanthii* (Castagne) U. Braun & Shishkoff.)**

Vladimir Filipović<sup>1</sup>, Ljubica Šarčević-Todosijević<sup>2</sup>, Vladan Ugrenović<sup>3</sup>, Snežana Dimitrijević<sup>1</sup>, Marko Popović<sup>4</sup>, Snežana Mrđan<sup>1</sup>, Vera Popović<sup>5</sup>

<sup>1</sup> Institute for Medicinal Plants Research "Dr Josif Pančić", Belgrade, Serbia

<sup>2</sup> High Medical - Sanitary School of Professional Studies, Belgrade, Serbia

<sup>3</sup> Institute of Soil Science Belgrade, Belgrade, Serbia

<sup>4</sup> Svetozar Marković Gymnasium, Novi Sad, Serbia

<sup>5</sup> Institute of Field and Vegetable Crops, Novi Sad, Serbia

Corresponding author: Vladimir Filipović, vfilipovic@mocbilja.rs

**Abstract**

The paper examined the influence of a plant preparation = broth based on yarrow to reduce the intensity of infection of pot marigold leaf powdery mildew (*Podosphaera xanthii* (Castagne) U. Braun & Shishkoff.). The goal of the work arose from the need for a solution to one of the most economically significant diseases of pot marigold (*Calendula officinalis* L. cv. "Domaći oranž"). This disease is caused by the fungus *Podosphaera xanthii* (Castagne) U. Braun & Shishkoff., which occurs during the cultivation of pot marigold. The location of the research was the collection of the Institute for Medicinal Plants Research "Dr. Josif Pančić" located in Pančevo (44°52'20"N; 20°42'06"E; 74 m.a.s.l.). The experiments were conducted during the growing season in 2022, on the soil of the humogley (black soil), according to a random block system in four repetitions. The size of the plot was 5.0 m<sup>2</sup> (2 x 2.5 m), and the effect of the broth based on yarrow was evaluated according to a scale from 1 to 5 of the presence of disease on the pot marigold leaf. The plants were treated with this preparation in three variants: The first variant - one treatment at the beginning of the disease, the second variant - at the beginning and two weeks after the disease and the third variant - at the beginning, after two weeks and four weeks after the disease. The fourth variant was a control variant, i.e. a variant without the use of broth. During the last treatment, an evaluation of the plants' infection with powdery mildew was made. In the tests, number 1 represented the least sensitivity, and number 5 the most sensitive variant of this disease. After the evaluation of the infection of plants with powdery mildew, the best results were shown by the third variant with the least presence of powdery mildew (on average 1.8 i.p.), the second variant in second place, the first in third place and the control variant in fourth place with the highest presence examined diseases (on average 4.0 i. p.).

**Key words:** pot marigold, *Calendula officinalis*, powdery mildew, plant preparation, broth

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