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Program and Abstracts

GERMINATION OF BROOMRAPE SEED ON DIFFERENT NUTRITIVE MEDIA

Maširević S., Medić-Pap S., Kostantinović B., Terzić A.

Faculty of Agriculture, Novi Sad, Serbia

stevanm@polj.uns.ac.rs

In the agroecological conditions of Serbia broomrape (*Orobancha cumana*) as a parasite of sunflower has been appearing with varying intensity almost every year and can cause significant damage. Resistant or tolerant sunflower hybrids are the most efficient and the most economical measures in the suppression of this parasitic plant. In the tests of sunflower hybrids susceptibility to broomrape under artificial infestation, high germinativity of broomrape seeds used for infestation. The aim of this paper is to evaluate influence of different nutritive media on broomrape seed germination including water agar (WA), water agar+giberellic acid (GA conc. 25 ppm) and water agar+trifender (T conc.1%) in the presence or not of 7days old sunflower roots, hybrid (NS-H-111). Trifender is a biological pesticide from *Trichoderma asperellum* acting as plant growth promoter with beneficial side effect to control soil borne pathogens when incorporated in soil. Seeds of *Orobancha cumana* were collected in the sunflower fields in Vojvodina (Senta and Vrsac) during 2009. Seed samples were kept in the fridge on 4°C for 10 months for break dormancy. Surface sterilized seeds (25 seeds in 4 replicates for each treatment) were put in Petri dishes with nutritive media with or without roots of 7 day-old sunflower plants and incubated at 25°C in the dark. Germination rate was determined every 7 days under dissecting microscope. Data were analyzed by ANOVA and Duncan test. Broomrape seeds from Senta germinated on each nutritive media containing sunflower roots. After 7 days the highest germination rates were determined on GA (23%), while rates were much lower on WA (3%) and T (0%). After 39 days germination rates increased a little and reached 30% on GA, 6% on WA, and 5% on T. The slowest germination rates were determined on T medium where seeds started to germinate after only 12 days. Germination rates on the same media without sunflower roots were under 5%. Broomrape seeds from Vrsac shared poor germinativity on nutritive media and it was under 4%. Germination rates were the lowest on nutritive T media, therefore the effect of this bio-pesticide on broomrape seed germination should be further investigated.