

Alelopatski utjecaj oštrodлакavog šćira (*Amaranthus retroflexus* L.) na klijavost sjemena uljne bundeve

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Sažetak

Pokus je proveden tijekom 2012. godine kako bi se utvrdio alelopatski utjecaj vodenih ekstrakata običnog šćira (*Amaranthus retroflexus* L.) na klijavost sjemena uljne bundeve (*Cucurbita pepo* var. *oleifera* Pietsch). U laboratoriju u petrijevim zdjelicama ispitani su vodeni ekstrakti pripremljeni od svježe mase korijena, stabljike i listova vrste *A. retroflexus* u koncentracijama od 0, 5, 10, 15 i 20%. U prosjeku, ekstrakti iz svih biljnih dijelova značajno su smanjili klijavost sjemena uljne bundeve. Ekstrakt lista imao je najveći inhibitorni učinak i smanjio klijavost za 85,3%, a ekstrakti stabljike i korijena za 23,3% i 27,6%. Porastom koncentracije ekstrakta korijena i lista klijavost se smanjivala, pa su najveći inhibitorni učinak pokazale koncentracije od 15 i 20%. S druge strane, klijavost sjemena u tretmanima s ekstraktom stabljike nije ovisila o porastu koncentracije. Najniža klijavost sjemena uljne bundeve zabilježena je pri koncentraciji od 15%, a najviša pri 20%.

Ključne riječi: alelopatija, *Amaranthus retroflexus*, vodeni ekstrakti, uljna bundeva

Allelopathic effect of redroot pigweed (*Amaranthus retroflexus* L.) on germination of oil pumpkin seeds

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Summary

The experiment was conducted during 2012 to determine the allelopathic effect of water extracts from redroot pigweed (*Amaranthus retroflexus* L.) on germination of oil pumpkin (*Cucurbita pepo* var. *oleifera* Pietsch) seeds. Water extracts from fresh roots, stems and leaves of *A. retroflexus* at 0, 5, 10, 15 and 20% concentrations were examined under laboratory conditions using Petri dishes. On average, extracts from all plant parts significantly decreased seed germination of oil pumpkin. Leaf extract had the highest inhibitory effect and reduced germination for 85.3%, while stem and leaf extracts reduced germination for 23.3% and 27.6%. The increasing concentration of root and leaf extract decreased seed germination, and highest inhibitory effect was recorded with 15 and 20% concentrations. On the other hand, seed germination in treatments with stem extract was not concentration dependent. The lowest germination of oil pumpkin seeds was recorded at 15% and the highest at 20% concentration.

Key words: allelopathy, *Amaranthus retroflexus*, water extracts, oil pumpkin