

Inhibitory Effects of *Ambrosia trifida* L. on the Development of Root Hairs and Protein Patterns of Radicles

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Abstract : *Ambrosia trifida* L. is designated as invasive alien species by the Act on the Conservation and Use of Biodiversity by the Ministry of Environment, Korea. The purpose of present paper was to investigate the inhibitory effects of aqueous extracts of *A. trifida* on the development of root hairs of *Triticum aestivum* L., and *Allium tuberosum* Rottler ex Spreng and the electrophoretic protein patterns of their radicles. The development of root hairs was inhibited by increasing of aqueous extract concentrations. Through SDS-PAGE, the electrophoretic protein bands of extracted proteins from their radicles were appeared in controls, but protein bands of specific molecular weight disappeared or weakened in treatments. In conclusion, inhibitory effects of *A. trifida* made two receptor species changed morphologically, and at the molecular level in early growth stage.

Keywords : *Ambrosia trifida* L., invasive alien species, inhibitory effect, root hair, electrophoretic protein, radicle

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