

## RAGWEED AND BIRTHWORT – ANTIMICROBIAL EVALUATION

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### Abstract

Due to continuous increasing concerns regarding the use of synthetic products in almost all industries, the scientific world puts more and more attention on ecofriendly solutions in several areas like agriculture, pharmacology or foods and feeds. In this context, this article is focused on the use of two indigenous plants, *Ambrosia artemisiifolia* L. (ragweed) and *Aristolochia clematitis* L. (birthwort) from Romanian spontaneous flora in order to identify several possible applications in agricultural sector and also in pharmaceutical industry.

The aim of the experiments was to characterize the biochemical content of *Ambrosia artemisiifolia* L. and *Aristolochia clematitis* L. extracts and to evaluate their influence on the development of several microorganisms. The ragweed and birthwort extracts were tested in three concentrations antimicrobial activity. The microorganisms used were *Bacillus cereus*, *Bacillus licheniformis*, *Bacillus subtilis*, *Escherichia coli* and *Candida albicans*. Only the activity of the microorganisms belonging to *Bacillus* spp. was affected by the extracts. The strongest influence was attributed to the extract from birthwort with the highest concentration and the susceptibility was directly proportional with the concentration.

Compared with birthwort, the influence of the ragweed extracts was reduced and the most efficient concentration was not the highest one.

**Key words:** *Ambrosia artemisiifolia* L., antimicrobial activity, *Aristolochia clematitis* L.

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