
ISOLATION AND CHARACTERIZATION OF AN ALLELOCHEMICAL FROM RUSSIAN OLIVE

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Plants excrete compounds that can be beneficial or detrimental to the receiving organism. The detrimental compounds are referred to as allelochemicals and typically inhibit growth, delay germination, and may result in death. Previous unpublished work at Rocky Mountain College has indicated that leaves of the invasive tree species, Russian olive (*Elaeagnus angustifolia*), contain a substance that causes delayed germination and stunted root growth in radish bioassays. The main goal of this study is to extract, isolate, and characterize the compounds causing this delayed germination via bioassays and analytical chemistry techniques. Our current results indicate that extractions of leaves using polar solvents may contain an allelochemical. Future work will include separation of the extract with chromatography and the characterization of the compound. Implications of this research include better infestation management practices and potential applications in agriculture.