Results from the HALT AMBROSIA Project: New insights into seed biology

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The European Commission is currently funding the project "HALT AMBROSIA" executed by a multi-national consortium. The project aims at improving the knowledge about the invasive alien common ragweed (*Ambrosia artemisiifolia*, Asteraceae) in order to develop measures for the prevention of further spread, eradication, containment and control of the species. As a prerequisite for the planning of eradication and control measures one part of the project is dedicated to the study of life history characters, in particular the dormancy and germination behaviour of the plant. We used germination tests and TTC tests (triphenyl tetrazolium chloride) to determine the following features:
proportion of living, dormant and dead seeds in fresh and stored seed lots,
seeds' ability to survive heat in different conditions,
the development of seed viability in the soil,
suitability of the soil seed bank monitoring to evaluate the efficacy of control measures.
In addition we studied the production of seeds (quantity and quality) and pollen of plants with different germination dates and after different treatments, e.g. cutting and herbicide treatment. The results allow first recommendations on the choice of control measures.