

ABSTRACT OF THESIS



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SEED INFECTING FUNGI OF TWO MAJOR DICOT WEEDS IN HUNGARY

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The purpose of this research study was to identify the phytopathogenic fungal genera in seeds of *Datura stramonium* and *Abutilon theophrasti* in Hungary. Their seed samples were collected from arable fields of Keszthely in 2009 & 2010, and 2007 & 2010 respectively. The seed samples were first cleaned, two replicates were used each with 50 (fifty) seeds. The seeds were placed grid-wise in the respective sterilized petri dishes that were layered with two moistened filter papers and covered with another sterilized petri dish. The set ups were put in a cooling-heating thermostat, calibrated at 24⁰C for incubation for 14 (fourteen) days. A sample of infected seeds was prepared and microscopically examined to determine the real infecting fungal genera and the exact number of seeds infected with particular fungi was recorded. The results showed presence of *Alternaria spp.* at 43.25%, *Aspergillus spp.* at 11.75% and *Fusarium spp.* at 4.25%. *Datura stramonium* seeds were more infected than seeds of *Abutilon theophrasti*. Some seeds were infected by more than one of these fungi. A similar study can be done with seeds collected from other agrarian parts of Hungary and using new/recently harvested seeds. It should also be answered why *Datura stramonium* seeds were more susceptible than of *Abutilon theophrasti* and the dominance of *Alternaria spp.* Finally, efforts should be devising strategies to curtail seed production by these two weed species to curb the pathogenic fungal species spread in their seeds and reduce their seedbanks in arable soil.