

**Methods for breaking of seed dormancy in *Echinacea angustifolia* D.C. and *Echinacea purpurea* (Poster)**

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**Introduction**

Seeds of plants have ensured the generations survival in natural habitats with improvement of seed dormancy mechanism. Improvement of germination rate and percentage is the most important characteristic for the economical production. *Echinacea angustifolia* and *Echinacea purpurea* are valuable medicinal plants originated from North America, which has been extended there cultivation in Iran with good yield

**Objectives**

Of course, seeds of these plants have many problems in germination. Because of medicinal value of these plants, these experiment has been conducted in Institute of Medicinal Plants -ACECR -in Iran

**Methods**

The treatments of this experiment have included: gibberellic acid (250 and 500 ppm), KNo<sub>3</sub> (0.3%), scarification, stratification (in three duration: 4,7 and 10 weeks), light (24h) and combined treatment with GA3 (250ppm)+stratification (4weeks).these treatments arranged in a completely random design at 4 replication .

**Results**

Results indicated significant differences ( $p < 0.01$ ) and the highest rate of germination is related to combined treatment. It was observed that the percentage of germination was significantly different at all treatments of breaking dormancy. The maximum number of germinated seed was found with in GA3 AND stratification.

**Conclusion**

According to results, it is suggested that *Echinacea angustifolia* cinerariae seed dormancy is control of endo seed factors.

**Keywords:** None

**Selected References**

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