

EFFECTS OF DIFFERENT GROWTH MEDIA, TEMPERATURE AND SALT (NaCl) CONCENTRATIONS ON GERMINATION AND PROLINE CONTENT OF ANISEED (*Pimpinella anisum* L. cv. Burdur)

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ABSTRACT

The effects of temperature, different growth media (with quartz sand and MS) and different NaCl concentrations on germination and proline contents of three week old seedlings were investigated. Germination rate was 58.6 % at 40C (16h light) while 74.6 % at 25C temperature in quartz sand medium. The germination ratio was 84.6 % in 0 mM salt and decreased from 26.6 % at salt concentration of 100 mM NaCl to only 2.3 % at 200 mM; germination period ranged from 3 days to 22 days at salt concentration of 0 and 400 mM NaCl, respectively. The salt tolerance of variety Burdur is restricted for only 50 mM NaCl with a proline content of $0.33 \pm 0.174 \mu\text{mol/g}$.

Additional keywords: *Pimpinella anisum* L., germination, salt, proline