

**Investigation of some ecophysiological aspects of licorice  
(*Glycyrrhiza glabra*) rhizomes**

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**ABSTRACT**

Because of their extensive underground structures, control of perennial weeds is very difficult. In this study, factors that influence the germination and control of licorice (*Glycyrrhiza glabra* L.) rhizomes were studied under laboratory and nursery conditions from 2002 to 2004. Results indicated that *Glycyrrhiza glabra* L. rhizomes buds did not germinate below 6°C. They need at least 154 degree days before they could germinate. Rhizomes were also exposed to low temperatures (5, 0, -3, -5 and -10°C) under submerged, field capacity and dry soil in a factorial design. Results showed that rhizome buds germination decreased under submerged soil at 5°C. Under all soil moisture regimes no rhizome could survive freezing temperature of -3°C and below. In desiccation experiments, no buds survived 10 days of desiccation at 25°C and higher. Totally the results of the experiments showed that the control of licorice (*Glycyrrhiza glabra* L.) rhizomes with physical methods is possible in laboratory conditions.

**Key words:** licorice, rhizome bud germination, freezing temperature, desiccation, physical methods.

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