Abstract

The study refers to aspects of zinc and mycorrhizal fungi *Glomus intraradices* (GI) on plant yield and nutrient concentrations and control of *Phytophthora capsici* of pepper. Pepper seedlings were used as plant material and fungal species used for inoculation was *G. intraradices*. In the experiment, two levels of mycorrhizal spore concentration including 1000 and 2000 spores in 10 g soil, and three levels of Zn as ZnSO$_4$.7H$_2$O (0, 5 and 10 mg Zn kg$^{-1}$) were used. It was found that Zn nutrition reduced *Phytophthora* blight infection in pepper. Besides the positive individual effect of zinc and mycorrhizal fungi on reducing the *P. capsici* infection, the disease severity was reduced by combined applications of Zn and GI. Results
showed that Zn nutrition and mycorrhizal inoculation will be helpful for controlling the P. capsici, increasing plant yield and nutrient concentration of pepper.

**Key words:**

Zinc, mycorrhizal fungi, Glomus intraradices, Phytophthora capsici, yield, mineral nutrient, pepper.