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Effect of the root-zone temperature grown in the greenhouse on the growth of chives

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Abstract

This study aimed to determine an optimal temperature of root zone for the chive cultivation in a greenhouse during the winter season that may raise the possibility of chive (*Allium schoenoprasum* L.) harvest any time year-round by reducing energy consumption. The maximum and minimum temperatures of root zone were 26.8 and 19.8 °C for the R-Z20, 28.3 and 23.6 °C for the R-Z25 and 22.4 and 14.3 °C for the control. The highest fresh weights of shoot and root, plant height, root length and stem diameter were observed in the R-Z20 treatment. There was no significant difference in the growth between the R-Z25 and control treatment. These results suggest that the optimal temperature of root zone is 20 °C for the chive cultivation in the greenhouse during winter season.

Keywords: Chive, *allium schoenoprasum*, greenhouse, root zone temperature

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