Response of two fig (Ficus carica L.) varieties after receiving Brassinolide on leaf, shoot and root segment

ABSTRACT

Background and Objective: The increase in growth after receiving brassinolide may vary between species. The main growth factors which may directly reflect to yield are functional leaf, shoot and root segment. Thus, the aim of this study was to investigate the effect of different concentrations of exogenous application of BL on growth of leaves, shoots and roots segments of fig. Materials and Methods: The experiment was arranged as Split Plot Randomized Complete Block Design (SRCBD) with 4 replications. Two fig cultivars Improved BrownTurkey (IBT) and Masui Dauphine (MD) were considered as a main plot and four level (0, 50, 100 and 200 mL LG1) of BL concentration asa sub plot. Experiment was conducted in an open field at Ladang 15, Faculty of Agriculture, University Putra Malaysia Serdang, Selangor,Malaysia, from May-December, 2017. Data was recorded weekly and monthly. Results: The results showed that growth of fig was affected by brassinolide levels and cultivars. Application of 50-200 mL LG1 BL increased growth of fig on leaves, shoots and roots segments in weekly and monthly observations. There was significant difference treatment of brassinolide and cultivar alone on growth of fig. Inaverage, concentration of brassinolide at 200 ML LG1 resulted highest growth performance of fig. The highest growth value of interaction between brassinolide and fig variety was on treatment of IBT+200 ML LG1. Between the varieties, IBT showed higher growth than MD.Significant negative correlation was noted only on between RL with RAD. Conclusion: The results of this study indicated that growth of fig on leaves, shoots and roots segments was affected by brassinolide levels and cultivars.

Keyword: Brassinolide; Cultivar; Ficus carica; Fig; Improved brown Turkey; Masuidauphine; Morphological development