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Assimilation of *Ficus microcarpa* "Hawaii" (v) plant growth and chemical constituents to peptone and tryptophan foliar application

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Abstract : The experiment was carried out at greenhouse of National Research Centre (Research and Production Station, Nubaria) during two successive seasons (2013 and 2014) to investigate the vegetative growth and some chemical constituents of *Ficus microcarpa* "Hawaii" (v) plants responses to foliar application various concentrations of peptone (500, 1000 and 1500 ppm) and tryptophan (50, 100 and 150 ppm). All of growth parameters (Plant height, number of both branches and leaves/plant, root length, leaf area and stem, leaves and roots weights (fresh and dry weights) were significantly affected by the foliar application of two factors which were used in this study. The foliar application of peptone and tryptophan treatments at various concentrations had promotion effect on all mentioned characters, as well as chemical constituents such as chlorophyll content (a and b), carotenoids, total soluble sugars, indoles, phenols, amino acids and NPK%. The highest results in these data were recorded in plants treated with peptone at 1500 ppm and tryptophan at 150 ppm for all growth parameters and chemical constituents.

Key words: *Ficus microcarpa*, peptone, tryptophan, growth, chemical constituents.

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