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Pollen extracts application as a natural growth substance on *Strelitzia reginae* Ait. plants

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Abstract: A field experiment was carried out at the Experimental Farm of the Faculty of Agriculture at Fayoum University. Two successive seasons to study the effect of bio- stimulant with water date Palm Pollen Extracts (WPE) applied as foliar spraying at rates(0, 5, 10, 15, 20 and 25 g/L) on the vegetative growth, flowering and chemical composition of the bird of paradise *Strelitzia reginae* plants. Results showed that, a significantly increased all growth parameters (plant height, petiole diameter, leaf petiole length, offsets number plant^{-1}, blade length, blade width, blade area, fresh and dry matters of leaves and roots, highest stalk length and diameter, spadix length and diameter, inflorescences numbers, fresh and dry matters of inflorescences**,** vase life (Days) and the least number of days from spadix appearance to flowering) and N, P and K concentration and uptake in leaves and inflorescences compared to the control treatment in both seasons. Data also showed highest values of growth characters and flowering and were recorded with20 g/L extracts of date palm pollens as compared with the control and other treatments in first and second seasons. Applying 10 g/L foliar spraying of extracts date palm pollens gave increased in pigment content and total carbohydrates percentage in leaves and inflorescences as compared with control and other treatments in both seasons. The magnitude variation of N, P and K uptake in leaves with respect to the rate10 g/Lin leaves whereas variation of N, P and K uptake in inflorescences with respect to the rate 15g/Las compared with other treatments.

Key words : Bird of paradise *Strelitzia reginae* plants - Date Palm Pollen Extracts fertilizers - growth parameter - chemical composition.

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