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## **RESPONSE OF THE GROWTH AND YIELD OF TWO POTATO CULTIVARS TO SPRAYING OF BAT GUANO EXTRACT AND MICROELEMENTS .**

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### **ABSTRACT**

This study was conducted in the spring season for 2014 in Albutheyb in the west of Al-Anbar city. Using two potato tuber seeds *Solanum tuberosum* L. Riviera and Desiree cultivars class Elite. Using foliar spraying with the bat guano waste extract and micro elements by three times for both.

The experiments had 7 treatments:

1-Control. 2-Full soil fertilizer recommendation without spraying. 3-Half-soil fertilizer recommendation + spraying with microelements 1g.l<sup>-1</sup>. 4-Half-soil fertilizer recommendation + spraying with bat guano waste extract 15ml.l<sup>-1</sup>.

5-Half- soil fertilizer recommendation + spraying with bat guano waste extract 30ml.l<sup>-1</sup>. 6-Half-soil fertilizer recommendation + spraying with microelements 1g.l<sup>-1</sup> + spraying with bat guano waste extract 15ml.l<sup>-1</sup>. 7- Half-soil fertilizer recommendation + spraying with microelements 1g.l<sup>-1</sup> + spraying with bat guano waste extract 30ml.l<sup>-1</sup>.

Potato seeds were planted in 25\1\2014 using split-plot design in RCBD with three replicates for each treatment. Results showed a significant superiority of Riviera CV. on Desiree CV. in the following trait tuber weight mean and marketable tuber weight mean .The treatment half-soil

fertilizer recommendation + spraying with microelements + spraying with bat guano waste extract  $15\text{ml.l}^{-1}$  significant superiorities on control treatment in each of plant height , number of stems , number of leaves , leaf area , marketable yield and total yield at the rates of 54.6 cm , 2.91 stems , 45.6 leaves.plant<sup>-1</sup> and 121.6 dc<sup>2</sup>. 61.24 ton.h<sup>-1</sup> and 62.99 ton.h<sup>-1</sup> respectively.

**Key words:** potato , spraying , bat guano , microelements.