

**EFFECT OF AGRICULTURE SULFUR UNDER FLOOD AND DRIP IRRIGATION SYSTEM ON A VAILABILITY AND UPTAKE OF PHOSPHOURS ELEMENT AND GROWTH OF CAULIFLOWER (*Brassica olerarcea* L.).**

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**ABSTRACT**

A field experiment was conducted at the agriculture season 2003-2004 in Amiria Region at Al-Anbar governorate in a silty loam soil which classified series Typic – Torrifuvent with silty loam texture. Randomly Complete Block Design (RCBD) was used for split unit experiment to study the effect of sulfur levels additions in some soil and plant characteristics under flood and drip irrigation system. contained five levels of sulfur ( $S_0$  ,  $S_1$  ,  $S_2$  ,  $S_3$  ,  $S_4$ ) and two irrigation system (Drip , flood) in three replicate (3 x 2 x 5) .

The results showed that :

A significant effect of sulfur levels addition and irrigation system in :

- \* Increasing phosphorous availability in soil and the level(4 mecagram sulfur. hectar<sup>-1</sup>) achieved highest quantity of available phosphorus (16.96 , 18.20 mg.kg<sup>-1</sup> soil) for flood and drip irrigation system respectively .
- \* Increasing Phosphorous uptake in plant curds and the level (3 mecagram sulfur. hectar<sup>-1</sup>) achieved highest quantity of phosphorous uptake (28.1 , 37.0 kg.hectar<sup>-1</sup>) to flood and drip irrigation system respectively.
- \* Increasing dry matter product , and the level (3 mecagram sulfur. hectar<sup>-1</sup>) achieved highest dry matter yield (4.81 , 5.69 megagram.hectar<sup>-1</sup>) to flood and drip irrigation system respectively).
- \* Increasing wet yield , and the level (3 mecagram sulfur. hectar<sup>-1</sup>) achieved highest wet yield (68.7 , 73.3 mecagram . hectar<sup>-1</sup>) to flood and drip irrigation system respectively.