كلية الزراعة قسم المحاصيل جامعة الفيوم
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First Article:

Article title	**Integrated application of organic, bio and mineral fertilizers on nutrients uptake and productivity of *Zea mays* L. under semi-arid condition**
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Recycling of organic residue is an eco-friendly approach for sustainable agriculture on personal and governmental level. Two field experiments were conducted during 2018 and 2019 seasons to evaluate the effect of inoculated of rice straw (+RS) by rate of 3 t fed^{-1} (one feddan = 4200 m^2) or without addition (-RS) as interacted with sole application of compost, mineral and bio-fertilizer or combinations among them on maize yield, and it's some macro and micro-nutrients. A split-plot arrangement with three replicates was adopted. Most of the studied maize parameters, 100-grain weight, grain, stover, ear and biological yields, as well as N, P, K, Fe, Zn, Mn and Cu were significantly affected due to +RS compared -RS in both seasons. Likely, addition of mineral fertilizer alone or along with compost or compost + bio-fertilizer + mineral of 75 or 50% of recommended dose gave significantly the highest values of above mentioned characters in both seasons. The interaction of +RS and supplying with mineral fertilizer alone or along with compost or compost + bio-fertilizer + mineral resulted in the

highest values of the growth traits, 100-grain weight, grain, stover, ear and biological yields, as well as N, P, K, Fe, Zn, Mn and Cu contents in both studied seasons. The integrated nutrient combinations of inoculated rice straw and compost or biofertilizer or both with mineral fertilizer may be used as an eco-friendly agronomical practice to obtain an agreeable maize yield and its contents of phyto-nutrients with reducing eco-pollution under semi-arid conditions.