**Phosphorous efficiency levels of different moroccan chickpea (*Cicer arietinum)* genotypes under controled conditions**

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Phosphorus (P) is the second most important macro-nutrient required by the plants, next to Nitrogen and is considered among the main abiotic factors limiting chickpea productivity in Morocco. This study assessed P-efficiency levels by three genotypes different Moroccan chickpea genotypes (Bochra, Arifi et Taounate) and interactive effects between P fertilizer (Triple Super Phosphate; Rock Phosphate) and doses (i.e., 14.3, 28.6 and 42.9 mg P kg-1 soil) under controlled conditions for 110 days. Results showed that Taounate genotype presents the best results among three genotypes in pod yield, root morphophysiological characteristics and P uptake while the best results in shoot biomass and the lowest root characteristics are obtained with Bochra genotype without significant differences between Arifi. The highest pod dry weight was recorded under RP fertilizer with all doses 14.3, 28.6 and 42.9 mg without significant difference between rates 14.3 and 28.6, while plants grown under unfertilized conditions recorded the lowest pod dry weight without significant difference to fertilizer TSP in rates 28.6 and 42.9 mg.

The highest root phosphatase acticity was observed for RP fertilizer 28.6 mg without significant difference to TSP rates 28.6 and 42.9 mg and RP 14.3 mg. The highest leaf P concentration and Shoot P content at 120 days was noted significantly under TSP 42.9 mg. However, the worst results were noted under TSP 80 kg/ha for both leaf P concentration and shoot content without significant difference under all RP doses. In conclusion, P fertilizer increase the P uptake from the soil for the chickpea.