GERMINATION AND UREASE , CATALASE ENZYMES ACTIVITY IN FRESH AND AGED SEEDS OF Cicerarietinum L AND Phaseolus aureus Roxb.

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ABSTRACT

This study was conducted the relationship between germination and enzyme activity of urease , catalase in fresh and aged seeds of Cicer arietinum L and Phaseolus aureus Roxb. Germination percentage , enzyme activity of extracts of seeds , inhibitors of urease (EDTA) 200 ppm ,catalase ($CuSO_4$) 10mM to fresh seeds , stimulaters of urease (Urea) 500 mM , catalase (Ascorbic acid) 200ppm to aged seeds was studied. The results showed : The Germination percentage of fresh seeds of Cicer arietinum L and Phaseolus aureus Roxb. was (83.7 , 91.1)% while the aged seeds was (0%) for each one of them . the total activity of urease in C. arietinum was (2.90 ,0.07) Unit / ml in extracts of fresh and aged seeds . The Ph. aureus plant the total urease activity was(1.43 ,0.02) Unit / ml in extracts fresh and aged seeds .The total activity of catalse in C. arietinum fresh and aged seeds was (3.23 ,0.04) Unit / ml while the Ph. aureus was (0.95 ,0.01) Unit /ml of fresh and aged seeds. To be sure of effective of urease and catalase in metabolism of seeds (germination , respiration) we Treated of fresh seeds (soaking) (36) h in inhibitors (EDTA) to reduction of germination percentage of C. arietinum and Ph. aureus was (33.3,40.8)% while ($CuSO_4$) reduction of germination was (27, 36.5)% . On the anther hand the aged seeds treated by stimulators by soaking (36) h in urea solution it was increasing the germination percentage to (16.5,21)% for C. arietinum and Ph. aureus , ascorbic acid increasing the germination percentage to (17.8,19.4)% .