

**EXTRACTION OF MILK – CLOTTING ENZYME FROM
Cartamus tinctorius SEEDS AND PARTIAL CHARACTERIZATION****S.M. Abdul – Rahman****Dept. of Food Tech.- College of Agric - Univ. of Baghdad .****ABSTRACT**

The partial characterization and purification of milk clotting enzyme from defatted meal of safflower seeds was done . The enzyme was extracted using four different types of buffers ,the most efficient extraction solution was found to be 3% NaCl in phosphate buffer . The enzyme was partially purified by precipitation with ammonium sulphate at 60% saturation , giving specific milk clotting of 9.33 unit/mg . The study of some specifics of partially purified enzyme pointed out that the maximum milk clotting activity observed at pH value 6 . At determination the optimum temperature for activity the enzyme from safflower seeds exhibited the maximum coagulation activity at 75 C. Upon examining the effect of the addition of CaCl₂ on coagulation activity at range of 10 – 100 mM ,the enzymatic activity increases as the concentration of CaCl₂ increases ,and the high activity at a salt conc. of 70 mM ,after that the activity decrease . To know the effects of some inhibitors on activity like Iodo acetic acid , EDTA and β-mercaptoethanol ,the enzyme was incubated with these compounds , it was clear that they had no significant inhibitory effect on enzyme coagulation activity .