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SOME OXIDO-REDUCTASES OF THE TRICARBOXYLIC ACID CYCLE (T.C.A.) OF COCONUT ENDOSPERM

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Coconut endosperm has been shown to be a non respiring tissue[1]. Hence the activities of some mitochondrial enzymes were studied. The extract was prepared by homogenizing the kernel in ice cold tris/HCl buffer (5 cm^3/g) of appropriate strength and pH and centrifuged at 700 g for 10 min. The supernatant was then centrifuged at 13,000 g for 20 min. The 13,000 g pellet/supernatant was used in enzyme assays.

The activity of mitochondrial enzyme, succinate dehydrogenase (E.C. 1.3.99.1) was not observed in the 13,000 g pellet nor in its supernatant[2].

The supernatant was checked for Malate dehydrogenase (E.C. 1.1.1.37) and isocitrate dehydrogenase (E.C. 1.1.1.41) activities. The Malate dehydrogenase activity was considerable (4,500 mu/g kernel) and Mn^{2+}. (0.018 M) did not show any effect on its activity[3].

Isocitrate dehydrogenase activity[4] was found to be 65 mu/g and this activity was stimulated by Mn^{2+}. In the presence of Mn^{2+} (0.08M) the activity increased to 460 mu/g.

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