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EFFECTS OF KINETIN ON LIPID LABELLING IN CELL ORGANELLES
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After 14 C-acetate pulse labelling (15min) and administration of kinetin (45min) leaves of *Petunia* and *Zea mays* were kept under moist conditions. At different periods chloroplasts, mitochondria, microbodies and a microsomal fraction were isolated by sucrose density gradient centrifugation. In *Petunia* 1 μ g/ml and in *Zea* 0.1 μ g/ml kinetin were most effective on lipid labelling. After 45 min the lipids of all organelles with the exception of microbodies showed higher activities than in controls, 300% in microsomes, followed by mitochondria. The absolute rise of activity is most distinct in chloroplasts. The specific activity of fatty acids measured by radio GC increased in C_{18} -acids (in microsomes by 200% and in chloroplasts by about 800% respectively). Values of the microsome label were lower than in controls after 2 hours. In chloroplasts, values similar to controls were obtained only after 3 hours. Short term effects of kinetin on lipid synthesis seem to be localized mainly in the microsome fraction and directed primarily to C_{18} -acid synthesis.