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CYTOKININ STIMULATION OF LIPID SYNTHESIS IN LEAVES  
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The influence of zeatin and kinetin on lipid synthesis was investigated in green leaves of Coleus and isolated chloroplasts of Petunia. After administration of cytokinins (4 h),  $^{14}\text{C}$ -acetate was fed to leaves (4, 12, and 18 h). The cytokinins enhance the labelling activity in the lipids of chloroplasts and the cell-residue. With zeatin up to 10  $\mu\text{g}/\text{ml}$ , the effect is more pronounced in the cell-residue. In isolated chloroplasts after incubation with  $^{14}\text{C}$ -acetate, the activity was increased by 10-20% after 3 h with 1  $\mu\text{g}/\text{ml}$  and by 50% after 1 h with 10  $\mu\text{g}/\text{ml}$  zeatin. A rapid stimulation of lipid synthesis in green tissues by cytokinins may be concluded. It is not confined to chloroplasts.