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Use of Cucumber (*Cucumis sativus* L.) Cotyledons as a Teaching Material

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In many plants lipid is the major carbon reserve which is stored in the cotyledons. Upon germination, such seedlings show a distinctive metabolic conversion of lipid to carbohydrate. The metabolic pathways are β -oxidation, glyoxylate cycle and gluconeogenesis. Cotyledons become the first photosynthetic organs of the developing seedling in epigeous species (eg., cucumber, melon, watermelon and pumpkin etc.). Then, the organ becomes senescent upon development of the first leaf. From these observations, cucumber cotyledon may be useful for science education in biology at the following ways.

1. Developing cucumber cotyledon will be useful for teaching with its easy to handling and short life cycle that shows germination, post-germinative growth and senescence within few weeks.

2. Cucumber cotyledons can be introduced as a teaching and experimental material about seed germination and organ development with the distinctive metabolic pathways and epigeous pattern of growth.