

After the exposure, histological pictures, bone marrow and blood pictures were studied to correlate the events leading from normal skin reactions to the onset of malignant tumours. Data were collected on animals sacrificed 4, 6, 8, 12, 16 and 18 months after UV exposure. Estimations of zinc levels in the skin were also made during these studies. The results show that squamous cell carcinoma develops 18 months after the UV exposure in this schedule. The details of these studies are presented.

Photosynthetic carbon metabolism in *Portulaca oleracea* and *Arachis hypogaea* exposed to salt and water stress

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C₄ acids (malate and aspartate) are immediate products of ¹⁴CO₂ fixation in *Portulaca oleracea*, a common succulent weed which can be classified as a C₄-facultative weak CAM succulent. When exposed to salt stress and the stress of deficiencies of K⁺ and Ca²⁺, the synthesis of C₄ acids is significantly greater. In K⁺-deficient leaves the accumulation of the label in 3-PGA is significant in initial and steady state photosynthesis. The C₄ trend reverts to the C₃ cycle in aging leaves. The results indicate that under environmental stresses the path of the carbon is altered significantly, affecting the synthesis of sugars. *Arachis hypogaea*, a C₃ plant, also shows an altered pattern of carbon metabolism under salt stress. This plant shows a C₄-like tendency when grown in the presence of NaCl and Na₂SO₄. The adaptive features of these plants under environmental stresses are discussed in view of these findings.