

# Photoprotection by Topical Application of *Achyrocline satureioides* ('Marcela')

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**It has been demonstrated that the use of topical antioxidants can contribute to controlling the free radicals excess produced by ultraviolet (UV) irradiation of the skin, being beneficial for processes such as photo aging and eventually cancer. Some plant extracts, particularly because of their polyphenolic constituents, can be beneficial for skin photo damage.**

Plant extracts of *Achyrocline satureioides* (AS) and *Epilobium parviflorum* (EP), potent antioxidant medicinal plants, were mixed with a cosmetic base and applied to the back skin of rabbits.

Afterwards the skin was exposed to 1 h of UV irradiation from a known source. The production of the hydroxyl (OH·) radical was assessed in the skin after UV by measuring 2,3-dihydroxybenzoic acid (2,3-DHBA), produced by the hydroxylation of sodium salicylate, previously injected intracutaneously (i.c.) in the irradiated areas.

The UV provoked a marked increase in 2,3-DHBA that was significantly decreased by the AS cosmetic preparation. The EP extract did not show any effect on 2,3-DHBA production. It is concluded that the cosmetic preparation containing the AS extract is able to scavenge OH· production likely to be due to the presence of high concentrations of flavonoid aglycones such as quercetin, luteolin and 3-O-methylquercetin.

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