

Germinated seeds to reduce wrinkles in the skin

Oxygen, ATP and other nutrients are responsible for the synthesis of skin structural fibrous proteins in the fibroblasts. The ability to synthesize new molecules decreases with age, with the consequent appearance of cutaneous flaccidity and wrinkles in the skin. The main products that have been used to prevent skin ageing and as hair tonics are hydrolysed placenta and other animal derivatives. Now animal products are being replaced by plant products, which act in the same way as placenta extract. In this context, Benaiges and others from Spain evaluated the activity of germinated seeds extract (GSE) on cell metabolism in order to study the suitability of this extract as a cosmetically active product.

The skin contains fibrous proteins, which are the structural elements of the tissue. The synthesis of these proteins (collagen and elastin) takes place in the fibroblasts under the influence of oxygen, ATP and other necessary nutrients. The synthesis of new molecules takes place more and more slowly as the number of fibroblasts falls with age, protein synthesis loses momentum and the compounds necessary for such synthesis are not so readily available. In the same way, the structure of the fibres that already exists is altered, causing the appearance of cutaneous flaccidity and wrinkles in the skin. Focussing on that idea, these scientists developed a new plant extract obtained from germinated seeds of Alfalfa, Radish, Wheat and Soybean. GSE comprises a set of bioactive molecules which could be capable of penetrating the innermost layers of the skin and providing the necessary energy to increase synthesis of collagen, elastin and glycosaminoglycans, thus having a beneficial effect on the skin by preventing and delaying the appearance of the clear signs of ageing (wrinkles). This bioactive complex could also be used in hair products due to a revitalizing action and an enhancement of protein synthesis.

Thus the germinated seeds represent a source for new potential active ingredients for cosmetics [Benaiges *et al*, *Int J Cosm Sci*, 2001, **23**(4), 245-255].

Floristics

New plant records for India

During botanical explorations scientists of the Department of Botany, Kumaon University Campus, Almora and Centre for Biodiversity and Biotechnology, St. Xavier's College, Palayamkottai, Tamil Nadu could collect the following plant species for the first time in India.

***Calandrinia ciliata* (Ruiz & Pavon) DC.** syn. *Talinum ciliatum* Ruiz & Pavon; *Calandrinia caulescens* Kunth (Family *Portulacaceae*).

It is an annual herb, 15-40 cm in height, native to America and found wildy in British Columbia in the north of Peru, Andean part of the Americas and Ecuador. It has been collected from wheat fields at and around Someshwar and Garur village in Kumaon, Uttaranchal. The plant is locally known as 'Lal Panoo'. In its native place it is sometimes grown as an ornamental plant in gardens and fleshy leaves are eaten as vegetable.

***Butea acuminata* (Benth.) Kurz** syn. *Spatholobus acuminatus* Benth. (Family *Papilionaceae*).

A small tree native to Myanmar, has been reported for the first time and recorded by Murugan and Manickam from semi-evergreen forests of Tirunelveli Hills, Tamil Nadu. The pink flowers of the plant appear during January.

***Memecylon variens* Thw.** (Family *Melastomataceae*)

A shrub up to 2 m in height bearing blue flowers is a native of Sri Lanka. It was hitherto unrecorded and unreported for India. Murugan and Manickam collected it from Tirunelveli and Kanniyakumari district, Tamil Nadu (Pande, *J Econ Taxon Bot*, 2001, **25**, 269-270; Murugan & Manickam, *ibid*, 2001, **25**, 346-349).