

*On the demand of our esteemed readers we are introducing this column to disseminate information on the introduction of new plants, under-utilized plants and cultivation practices of plants suitable for wastelands and other regions.*

*The information shall be compiled by editors or contributed by authors. Contribution of articles by plant growers with cultural practices, seed source and economics are solicited.*

## **Clary sage: A cold desert aroma introduced in herbal garden of FRL, Leh**

*Salvia sclerea* Linn., Clary sage also known as Clary is native to Canada, the U.S.A. and Europe. It is well known aromatic plant of France and other European countries like Italy, Hungary, England, etc. It belongs to family Lamiaceae. An eyewash made from its mucilaginous seeds gave Clary sage its name, meaning 'clear eye'. Its oil, known as Clary oil is mainly used in digestive problems, bronchitis, asthma, headache, uterus tonic, depression, nervousness, psychological tension, stress, frigidity, impotence, skin infection and swollen tissue. In perfumery it is an important oil. It has a nutty, herbal aroma. The dried leaves are used sparingly for flavouring in cookery.

The plant is an erect, biennial herb, more than 1m in height. The leaves are large up to 20 cm long by 12 cm wide, pubescent. Like other ornamental *Salvia*, this species also bears attractive white, pink, lilac or blue coloured flowers.

The essential oil is steam distilled from the leaves and the flowering tops. The

oil is excellent in all kinds of stress and conditions of tension, either mental or physical. Powerful muscle relaxant. Good for headaches and migraines. Calms digestive problems especially cramps. Asthma. Sore throats. Good for menstrual, hormonal problems, PMS, night sweats. Prevents excess sweating. Encourages labour. Relieves post-natal depression. Has aphrodisiac qualities – causes euphoria and relaxation – good for troubled, tense, stressed relationships. The oil contains L-linalyl acetate, linalool, L-nerolidol, neroliacetatescareol (a diterpenal alcohol).

The use of clary sage oil should be avoid in pregnancy. It can make very drowsy hence should not be used before driving. Never drink alcohol when using this oil as it can cause bad hangover effect.

### **Cultivation**

This plant was introduced by Regional Research Laboratory (RRL), Jammu in Kashmir valley and could come up nicely in the valley as biennial plant.



*Salvia sclerea*

On the request of RRL, Field Research Laboratory (FRL) tried this aromatic plant in its herbal garden at Leh. Over three years of experimentation in collaboration with Forest Division, Leh, this plant was found to behave as annual. This is an important economic aspect. This means Leh valley, which has been greened by the contributions made by FRL, is suitable for its production. In an annual crop yield of inflorescence/ spike which is used for extraction of clary oil, varied from 0.5 kg to 2.5kg/plant. Experiments are in progress to take more than one flush of spikes during limited agriculture season

(May to September) of Leh with the help of solar greenhouses, which are not uncommon there. About 0.2 to 0.3 % Clary oil has been obtained from the spikes at FRL indicating production of more than 40 kg oil/hectare.

On 6-7 September 2002 an *Interactive meet on Clary sage in Ladakh* was jointly organized by RRL, Leh Hill Development Council, and Forest Division, Leh at Field Research Laboratory

(FRL), Leh. Progressive farmers also participated in the meet. After detailed discussion it was decided to try this plant on small area (one or two hectare) at Leh by putting oil extraction facility (distillation still) during 2003–2004 and explore international and national market through industry.

This introduction of Clary has exhibited great potentials of Leh for production of aromatic and medicinal

plants. Production of Clary would contribute in socio-economic upliftment of the area. The climatic conditions of Leh valley is known for imparting higher quality aroma in plant.

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## Promising Edible Fruits

Dr G. Pandey, Senior Scientist, CITH, Regional Station, Mukteswar, Nainital, Utranchal has reported that in North Eastern Himalayan region of India out of 300 edible plant species some following species may be exploited for commercial cultivation as they possess very good nutritional value and are sold by people in local markets.

***Docynia indica* Decne** (Indian Crab Apple, False Quince) and ***D. hookeriana* Decne** (Fam. Rosaceae, local name: *Soh-pho*)—Medium sized tree, flowers during the month of February to March and greenish acidic fruits with red tinge and 5.50 x 5.20 cm in size are available in the months of November- December. The fruits are sold at the rate of rupees 16- 20/kg. Fruits are eaten fresh or pickled.

***Elaeagnus latifolia* Linn.** (Bastard Oleaster) and ***E. pyriformis* Hook. f.** (Fam. Elaeagnaceae, local name: *Soh lang*) — Shrubs, flowers during September to December and dark pink coloured,

3.76 x 2.89 cm fruits are available in the months of August - September. The shelf-life of fruits is 3-5 days and are sold at the rate of rupees 10-15/kg. Consumers eat fresh fruits or make juice.

***Myrica esculenta* Buch.-Ham.** (Box Myrtle) (Fam. Myricaceae, local name: *Soh-phie-nam*)—Evergreen, moderate sized tree, flowers during October to December and starts fruit ripening during the months of April to June. The fruits are 2.5cm, ellipsoidal

or ovoid, reddish in colour; sold at the rate of rupees 20-50/kg and are good for making refreshing drinks. The bark has medicinal value and yields a yellow dye.

***Prunus nepaulensis* Steud.** (Fam. Rosaceae, local name: *Soh-iong*)—Medium sized evergreen tree. Fruits round in shape and 2.30 x 2.20 cm in size are black in colour; they are available in the months of July-August. Fruits are used for the preparation of squash, jam and cheery wine.

***Pyrus pashia* Buch.-Ham. ex D. Don** (Fam. Rosaceae, local name: *Sho-shur*)—Medium sized deciduous tree. Fruits globose, dark brown when ripe, 1.5-4 cm across are available during July-August and contain 3.5 mg/100 g Vit. C and 6.50 % total sugar.

Above species are suitable for the commercial cultivation on barren and uncultivable wasteland [Pandey, *Indian Hort*, 2002, 47 (3), 18-21].

