

for cultivation. EC291748 in saffron from Italy and EC217012 in *Matricharia chammomila* from Romania for green herbage and high essential oil and *Thymus vulgaris* (EC207655) from USA as a good source of oil thyme and thymol. A large number of basil genotypes for different traits have been introduced from France. These include linalool genotypes EC176934, methyl-chavicol genotypes EC338781-338775 and 338778, methyl-cinnamate genotypes EC312264 and eugenol genotypes EC-282721. *Satureja hortensis* (EC328517)

from Iran and *Pimpinella anisum* anethol rich lines (EC-22091) from France are among new introductions. Many of these are successfully adopted in the Indian agricultural system. National Bureau of Plant Genetic Resources, New Delhi has also entrusted with the responsibility of conserving this biological wealth. It has established a National Gene Bank which has a seed gene bank, a tissue culture repository and a cryo-bank. All the available germplasm of potential crops is being stored at national gene bank.

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## ABSTRACT

### Potential Genetic Resources of *Salicornia*

**Rahul Chaturvedi and Carl N Hodges**

*Seaphire International, 4230 E, Whittier Street, Tuscon, Arizona-85711, USA*

*Salicornia bigelovii* an annual C3, leafless halophyte is a potential sea resource irrigated edible oil crop. Due to its highly salt tolerant nature, it is grown in coastal desert areas with direct seawater irrigation. *Salicornia* seed contained high level of oil (26-32 percent) and more or less similar to safflower and sunflower in edible qualities. Seed meal had 35 to 40% protein with 0.05 percent saponins and could replace soybean meal used in poultry industry. Straw of *Salicornia* is rich in lignin and salt. It can be used in making fire logs, particle boards and paper. Straw is also used as animal fodder on blending with other fodder(s). At vegetative growth stage growing parts of plants are harvested and used as green vegetable and salad.

Based on decades of intensive research work done in Mexico, United States of America, Eritrea and other parts of the world, new varieties have been developed with seed yield potential of 2.5 to 2.8 tonnes per hectare. The performance of salicornia may further be increased with the development of hybrid varieties by exploiting male sterility system.

Looking into challenges from population growth, fast depletion of underground fresh water and shortage of edible oil, salicornia appears to be potentially valuable new oilseed crop for subtropical coastal desert areas of the world. Thus the possibilities of inbreeding and evolving these elite materials have to be explored.