

Current and Prospective Uses of Seabuckthorn

China was the first country to use seabuckthorn. It can be traced to the Tang Dynasty in a book entitled "*Si By Yi Dian*" where seabuckthorn berries are described as a medicine.

Current Use

Since 1983, some of the provinces and autonomous regions in the north, north-west, and south-west, such as Shanxi, Shaanxi, Neimeng, Gansu, Qinghai, Sichuan, and Xizang have been using seabuckthorn with favourable results. Its use has been introduced into the development economies of mountain regions and its prospects are promising.

There are 670,000 ha of natural seabuckthorn in China and 49,000 ha of these are in the Eastern Himalayas (including Eastern Tibet, West Sichuan, and North-west Yunnan). A recent survey showed that about 22,000 tons of seabuckthorn berries are produced but remain unused in the Eastern Himalayas.

By the end of 1987, 150 processing plants for seabuckthorn had been built in China. The basic process consists of the crushing and concentration of the juice at the collection site. The product is then transported to the cities for further processing. In Western Sichuan there are three primary processing plants (in Xiaojin, Sichuan, and Muli counties) who sell their products to Chengdu, Chongqing, Wuhan, and other cities where they are processed further to produce soft drinks, wines, jams, and medicines.

Economic and Ecological Benefits

Economically, farmers in mountain regions have become better off through their involvement in the manufacture of Seabuckthorn products. From 1985 to 1987, farmers living along the middle reaches of the Yellow River earned a total annual income of five million *yuan* by picking seabuckthorn berries. One small village of 42 families, in Fangshan County of Shanxi Province, received 180 *yuan* per family, in the Autumn of 1984, through the sale of berries. In Qingshi County of Gansu Province, a distillery, that had been running at a loss before 1983, turned over to the production of seabuckthorn products, and, by 1985, had wiped out its deficit and, by 1987, had made a profit of 164,900 *yuan*.

Sichuan Province became involved in seabuckthorn products much later. However, there have been a number of achievements, and these are shown in Table 5.

Table 5: Seabuckthorn Processing in Sichuan Province

Name of Factory	Annual Production Capacity	Varieties of Products	Annual output Value (<i>yuan</i>)	Annual Profit (<i>yuan</i>)
Xiaojin, Seabuckthorn Beverage Factory	100 tons berries processed	Crushed juice, Condensed juice, Solid juice, wine	135,000	20,000
Jinchuan Seabuckthorn Beverage Factory	100 tons berries processed	Crushed juice, Solid juice	135,000	18,000
Muli Seabuckthorn Beverage Factory	100 tons berries processed	Crushed juice, Syrup	130,000	15,000
Chengdu Fruit Processing Factory	50 tons berries processed	Crushed juice, Condensed juice, Syrup, Soft drink	1,000,000	150,000
Chongqing Jiangbei Beverage Factory	50 tons berries processed	Crushed juice, Syrup, Soft drinks	150,000	50,000

Source : Author

Note: There were 4.73 *yuan* to the dollar in 1989.

Ecologically, the benefits are extremely important. China now has a big Shelter-forest Programme in its north-eastern, north, and north-western regions. After many years of experimentation, forestry experts have come to the conclusion that shrubs should first be raised in shelter-forests in order for them to thrive. Among the shrubs, seabuckthorn is the most important because of its different ecological uses. It has been used to stabilize the mountain slopes and the river banks in Yanyan County, and Shanxi Province has planted seabuckthorn on a large scale. Since the 1950s, more than 15,000 ha have been planted in order to control water run-off and soil erosion.

Problems Involved in the Use of Seabuckthorn

The berries are currently collected from natural stands. Because of numerous thorns, some farmers resort to cutting down the shrubs to pick the berries and this damages the resource base.

The plant is deciduous, and in natural forests the ratio of male to female is not equal. The ratio of males is higher and female plants are scattered and difficult to harvest.

In the Eastern Himalayas, especially in East Tibet and Western Sichuan, almost all the groves are away from transportation facilities and are far away from the cities making it difficult to have access to processing facilities as well as to markets.

In order to use these Seabuckthorn resources fully, the Chinese Government has formulated a policy to protect them and to cultivate new plantations.

For Shanxi Province the salient points of this policy are:

- o the determination of authority over the forests (of which parts are State, Collective, or individually owned);
- o the protection of seabuckthorn groves;
- o The conversion of wastelands and orchards to seabuckthorn groves after which they can be contracted to farmers under a "Household Contact";
- o the reforestation benefits to accrue to whoever reforests over a period of 50 years;
- o the prohibition of the felling of seabuckthorn groves and trees; and
- o the strict enforcement of Forest, Water, and Soil Conservation Regulations.

Due to the efforts of the last five years, more than 150,000 ha of seabuckthorn groves have been established in North and North-west China.