AN OVERVIEW OF SOME IMPORTANT ESSENTIAL OILS AND OTHER NATURALS

PETITGRAIN

Petitgrain Oil Paraguay (Citrus aurantium L. var. Paraguay) syn (Citrus aurantium var. bigaradia Hook f.)

INTRODUCTION

Petitgrain oil Paraguay is widely used in fragrance compositions for all kinds of perfumery products, cosmetics and household chemicals. Its sweet, woody-foxy, citrus odour has many applications from “Plantise Noir” (created by Caron in 1911) to most popular toilettries, washing products and many others. Its easily obtainable productions (eg no bergapten, low limonene) extend its range of applications. It is also an important therapeutic ingredient of aromatherapy mixtures. Valuable in therapy for depression, anxiety and sleeplessness petitgrain Paraguay also has antimicrobial properties and is used in pharmacy against acne and mycosis, especially in feet. It is listed in British, US and EU Pharmaceuticals ISO Standard 3064:2000.

The weather and temperature of the Oriental Region of Paraguay are very beneficial for the bitter orange tree (Citrus aurantium sp.) from which the raw materials are picked for petitgrain oil production. In this region 80% of the species is cultivated and 20% grows wild.

Paraguay is the main producer of petitgrain oil. The main production departments are San Pedro (accounting for around 92% of production), Caqueta, Cordillera and Caaguazu (Fretes and Martinez, 2011).

The total production of petitgrain oil in Paraguay amounts to 200 tonnes per year, accounting for over 80% of global production. About 98% of the production in Paraguay is exported (Amigo, 2011).

PRODUCTION AND PROCESSING

CHARACTERISTICS

Petitgrain oil is produced by steam distillation of harvested leaves and twigs from the bitter orange tree. This tree is sown from seed and can take up to 5 years for the first cutting and distillation, and can last up to 35-45 years. Producers let the plant grow only up to an average of 1.7 to 1.9 metres in height, in order for the plant to be filled with leaves and to make the cutting easier. The task of cutting the leaves, as well as the distillation process requires a lot of manpower as there is no mechanisation. The harvest normally takes place twice a year, although harvesting can be carried out all year long. Around 70-80% of the total annual harvest is carried out between October and February, with 20-30% carried out between April and June.

The distillation is still carried out onsite, at farm level. Wooden home stills, which normally have a capacity for 400 kg of leaves, are used. One still is used by several farmers located nearby. The wood used for making the stills is generally from the native tree, the yoyandu. The leaves yield around 0.30 to 0.35% of oil, and the main components of petitgrain oil are linalyl acetate and linalool.

SOCIAL AND ECONOMIC CHARACTERISTICS

Production is totally dependent upon smallholders. About 15,000 families depend to some extent on the production of petitgrain oil. The average size of a plantation is around 1 to 2 hectares. Petitgrain oil is a very important oil for farmers producing it as it is considered a saving account for farmers when there is no income from any other alternative product they distill petitgrain oil which means cash for them all year long (Amigo, 2011; Fretes and Martinez, 2011). It is improved with time if properly stored.

CONCLUSIONS

The production of petitgrain oil Paraguay has been carried out for more than 100 years and is an important source of cash income for approximately 50,000 to 60,000 people (15,000 families) involved in the plantation, production, intermediation and trading of the oil. It has a turnover of about US$ 80 million in value. About 98% of the oil is exported. The natural oil has no synthetic substitute due to its balanced composition of terpenes, esters and sesquiterpenes; a composition which is fundamental in its use within the fragrance industry.

REFERENCES:


