

Effect of Nutmeg in Prostate Cancer

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Abstract: Nutmeg is a regarded kitchen flavor that has been used for a serious long time wherever on the world. Despite its usage in improving food sources and beverages, nutmeg has been used in customary answers for stomach and kidney issues. The cell support, antimicrobial and central tangible framework effects of nutmeg have also been represented recorded as a hard copy. Nutmeg is a rich wellspring of fixed and key oil, triterpenes, and various types of phenolic compounds. Nutmeg (*Myristica fragrans* Houttuyn) was removed with liquid carbon dioxide at 90 bar and 23.0°C. The seed is well of f in basic and oily oils, with myristicin and myristic destructive being the brand name compounds in each social affair independently. It was shown that extraction yield can be tremendously improved by a lessening in atom size. The extraction rate could be overhauled during the second season of extraction through an augmentation in dissolvable stream rate. Nutmeg oil was removed from nutmeg seed at squeezing components of 15–20 MPa and temperatures of 313–323 K with supercritical CO₂. The effects of separation limits like temperature, pressing factor, and CO₂ stream rate and particle size on the extraction speed of nutmeg oil were taken note. Broken moreover, immaculate cells (BIC) model got together with discontinuous stage amicability between fluid stage and solid stage, and contracting focus model were picked to depict the extraction cycle. The aim of this article is to explain that how the phytochemicals of nutmeg cures the prostate cancer. Here the terms are explained about different types of extraction process like Supercritical CO₂ extraction, the laboratory scale extraction, steam distillation, hydro distillation, soxhlet extractions in which we get minimal amount of plant content to examine about the cancer cells. There are different types of cancer present in this world like sarcoma, Carcinoma, Melanoma but prostate cancer is one of the most dangerous disease found in the world that is spreading rapidly among the peoples. We investigate by taking the cancer cell like PC-3 and LNCaP.

Keywords: Essential oil; Nutmeg; *Myristica fragrans*; Supercritical CO₂ extraction

Introduction

Myristica fragrans is a tree that is developed in a tropical area. Nutmeg is acquired from the seeds of that tree. The measure of seed acquired relies on the beginning, environment, and soil. *Myristica fragrans* is a dull leaved evergreen tree developed for two species got from its natural product: nutmeg from its seed and mace from the seed covering. California nutmeg i.e. *Torrey californica* has seed which are similar in appearance with *Myristica fragrans* but is not closely related to it. The nutmeg flavor has an unmistakable sharp scent and a

warm somewhat sweet taste. The zest is utilized to season numerous sorts of prepared merchandise, meats, frankfurters, syrups, vegetables, potatoes and refreshments. If it is consumed in excess amount may produce allergic reactions, cause contact dermatitis or have psychoactive effects. Two species of genus *Myristic*, *M. malabarica* and *M. argentea* are sometimes used to adulterate nutmeg as a spice.

Mace is the zest produced using the rosy seed covering of the nutmeg seed, Its flavour is like nutmeg yet more sensitive; it is utilized to season