

Sensory quality and cost of production of instant soy coffee

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ABSTRACT

Enriched coffee with great nutritional value can be prepared without caffeine at a lower cost from soybean. Instant coffee powder was prepared from using soybeans, fenugreek, jaggery and skim milk powder. Soybean and fenugreek were roasted followed by the addition of skimmed milk powder and jaggery in appropriate proportion. On the basis of organoleptic evolution results the 2nd treatment showed high overall acceptability. From the results it is concluded that good quality of coffee can be prepared by using 15 per cent soy powder. The product is also economically viable as the cost of production is very low as compared to available commercial coffee in the market and the utilization of soybean will give more income to the farmers.

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Key Words : Coffee, Soybean, Fenugreek, Jaggery, Skimmed milk powder

INTRODUCTION

Coffee [*Coffea arabica* L.] is an important beverage used all over the world. Brazil and Columbia are the largest coffee producers in the world. In India, the production of coffee is about 4.00 lakh tonnes in the year 2003-04. The current domestic consumption of coffee is about 65,000 tonnes (Shrilakshmi, 2007). It is mainly used as a beverage in the form of aqueous extract prepared from roasted and powdered beans. The constituents that are of chiefly significance in the making of the beverages are caffeine, flavour substances and bitter substances (Panda, 2001).

For most healthy adults, moderate amounts of caffeine 200-300 mgs a day or the 2-3 cups of coffee do not produce any problem (Shrilakshmi, 2007). Drinking excess of coffee causes high acidity in the stomach, gastric ulcer, loss of appetite, high blood pressure, craving for smoking tobacco, nervousness, insomnia, palpitation of the heart, excessive urination, damage to the kidneys and causes impotency, nervous tension, headache, excess of perspiration, neuralgia, intolerance to pain, over sensitiveness, uric acid diathesis, hysteria etc. (Panda, 2001). Caffeine also disrupts day time sleep (Julie, 2006) and may prove risky for cardiac patients (CMP Media, New Zealand, 2006).

Today, the search for substitute is motivated more by health concerns over caffeine, which can trigger peptic ulcers, exacerbate migraines and may contribute to fibrocystic breast disease (Emily, 2006). Soycoffee is very

active in educating the people on the dangers of caffeine addiction, supporting legislation against bio-engineered food and lobbying the FDA to force manufacturers to reveal the exact amount of caffeine in products offered to consumers. Claudia Del Vecchio, founder of soycoffee maker well-Bean coffee co. explained that the on average, one six-ounce cup of soycoffee blend yields about two grams of soy protein and about 28 milligrams of "Isoflavones". The FDA recommends a daily soy protein intake of 25grams.

Soycoffee preserves certain soy characteristics as

- Caffeine-free
- Aid digestion
- Lower blood cholesterol levels
- Promote gastrointestinal health
- Prevent bone loss and slow the advancement of osteoporosis
- Promote healthy menopause
- Fight heart disease
- Promote healthy prostate
- Prevent cancer, particularly colon, rectal, and breast cancer

Soy product may help to control both type-2 diabetes and high blood pressure. However, information regarding the replacement of caffeine from coffee prepared from coffee beans for its side effects by preparation of soycoffee using soybean as a food ingredient is lacking. Hence, the entire study was planned.