

EXTRACTION OF CORIANDER LIQUID IN AQUEOUS MEDIUM & ITS APPLICATION IN PREPARATION OF DIFFERENT NON-VEG, VEG- RECIPE

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Abstract: Coriander seems to possess been cultivated in Greece, since, a minimum of the second millennium BC. Coriander was cultivated by the traditional Egyptians. Coriander is employed in vegetable also as non-vegetable recipe cooking to impart good test and smell everywhere on the planet. Coriander juice is employed within the urinary calculus treatment, rather than coriander juice we use coriander extract within the urinary calculus treatment. But most of the time coriander not available thanks to environmental, climatic condition at that point customer miss the great test and delicious smell of food, to avoid this agony we extracted coriander liquid which is employed up to at least one year by preserving it under suitable temperature. Coriander liquid is extracted by steam distillation method during which water is employed as a solvent. From one kilogram green coriander we will extract minimum 1.5 liter coriander liquid. Green coriander is perishable, therefore, it cannot preserve therefore it's necessary to transfer in another form during which it can preserve easily without changing its taste and delicious smell. Most of the vegetables transported to populate area from country therefore while transporting taste and deliciousness of coriander is depleted, most of the time it's not available within the market.

Keywords: coriander, Extraction, application, veg-food, non-veg-food.

1. INTRODUCTION

It is edible plant due its use of all parts, but in cooking the fresh leaves, and therefore, the dried seeds are the parts most traditionally used, it's used throughout the planet in cuisines. It's multiple health benefits. An exquisite source of dietary fiber, manganese, iron, and magnesium may be a Coriander or cilantro also additionally, coriander leaves are rich in vitamin C, vitamin K and protein. It also contains small amounts of calcium, phosphorous, potassium, thiamine, niacin, and carotene. It's helpful lower in blood glucose, Rich in immune-boosting antioxidants, benefit heart health, it protects brain health, promote digestion, and gut health, fight infections, protect your skin, Easy to feature to your diet. It's a filled with antioxidants that demonstrate immune-boosting, anticancer, anti-inflammatory, anti-diabetic, a xiolytic, anti-epileptic, anti-depressant, anti-mutagenic, anti-dyslipidemic, anti-hypertensive, diuretic and neuroprotective effect. Coriander protects your heart by lowering vital sign, and LDL (bad) cholesterol while

increasing HDL (good) cholesterol. A spice-rich diet appears to be related to a lower risk of heart condition. The antioxidants in coriander reduce brain inflammation, improve memory, and reduce anxiety symptoms, though more research is required. Coriander reduces unpleasant digestive symptoms like bloating and discomfort often experienced by the people with IBS. It also boosts appetite among some people. It exhibits antimicrobial effects that help fight against food borne illnesses and pathogens like Salmonella. Thanks to presence of antioxidants it protects your skin from ageing and sun damage. It also facilitates treat mild skin rashes. Its seeds and leaves both are available handy for everyday cooking but offer very different flavors that determine their best uses. The leaves are variously mentioned as coriander leaves, fresh coriander, dhania, Chinese parsley, or (in the US and commercially in Canada) cilantro. The leaves spoil quickly when far away from the plant, and lose their aroma when dried or frozen. This problem is resolved by extracting its constituents which show above activities in aqueous medium economically which may be preserved up to at least one year and used throughout the year with none hurdle. Raw coriander leaves are 92% water, 4% carbohydrates, 2% protein, and fewer than 1% fat. The nutritional profile of coriander seeds is different from the fresh stems or leaves. During a 100 gram reference amount, leaves are particularly rich in vitamin A, vitamin C and vitamin K, with moderate content of dietary minerals. Although seeds generally have lower content of vitamins, they are doing provide significant amounts of dietary fiber, calcium, selenium, iron, magnesium, and manganese. Accounting for the aroma and flavor of coriander leaves and seeds contain mixed Polyphenols and terpenes, including linalool because the major constituent.

2. EXPERIMENTAL

2.1 picking of coriander leaves: picking of coriander leaves alongside flowers, pods from coriander, wash it with lukewarm water to urge obviate dust and other contaminants.

2.2 Extraction of Coriander Liquid:

After 45 for 90 days devour the leaves of coriander approximately 3-4 kg and put it into a Hot Continuous Extraction (Soxhlet), apparatus which is as shown bellow placed 2 liter water as a solvent. The extracting solvent in a flask is heated, and its vapors condense in condenser. The condensed extractant drips into the thimble containing the crude constituents & extracts it by contact. When the extent of liquid in chamber rises to the highest of siphon tube, the liquid contents of chamber siphon into flask. This process is continuous and is administered until a drop of solvent from the siphon tube doesn't leave residue when evaporated. Similarly, all differing types of coriander were extracted which are considerably useful within the treatment of urinary calculus, and it's also utilized in the cooking of various sorts of veg, non-veg recipe.

3. PRESERVATION OF AQUEOUS CORIANDER

The above extracted coriander liquid is preserve bellow 40 degree Centigrade temperature. it's often spent to a minimum of one year.

3.1 Bottling and labeling: Bottling and labeling is run according standing procedure given by the FFSI and filled coriander liquid in well labeled bottle in 100ml, 250ml, 500ml and 1000ml respectively.

3.2 Packing: For well labeled bottles are filled then packing is run according standard industrial procedure.

4. RESULT AND DISCUSSIONS

According to Phytochemicals and micro nutrient constituent's analysis data of coriander leaves and seeds powder, it contains vitamin A, C, K, E, B1, B2, B3, B5, B6, B9 alongside calcium (Ca), iron (Fe), magnesium (Mg), Magnase (Mn), Phosphorus (P), Potassium (K), Sodium (Na), and Zinc (Zn). It also shows anticancer, anti-inflammatory, antimicrobial, antioxidant activities also contains mixed polyphenols and terpenes it's an

honest pleasant delicious smell which imparts good test to food. In urban areas most of your time fresh coriander not available therefore it's necessary to transfer raw coriander into its preservative form which having same medicinal, other values, and impart same pleasant smell also as delicious test to food from its extract make available thought-out the year. Aqueous coriander extract is a superb remedy on urinary calculus therefore it is often used as a drug for the urinary calculus treatment. For the traditional adult person 100-150ml aqueous coriander liquid is suggested up for 7 days for the six month for the treatment of urinary calculus.

5. CONCLUSION

According to Phytochemicals and micro nutrient constituent's analysis data of coriander, its aqueous liquid is commercially considerably useful, and it's not only easily extracted but also stored and utilized in food industries also as within the treatment of urinary calculus.

7.1. Tables

Table 1 contains Quantitative calculation of aqueous coriander

Stage of Green coriander 1 kg	Aqueous Coriander in liter
At flowering stage	1.2
At green pods stage	1.5
Just before flowering stage	1.3
Just beginning stage	1.0

Table 2 contains Quantitative calculation of aqueous coriander

Raw coriander powder 1 kg	Aqueous Coriander in liter
600 gm	2
450 gm	1.7
300gm	1.5
150 gm	1.3

Table 3 contains Nutritional value of Coriander (cilantro) leaves

Sr. No.	Name constituents	quantity
1	Vitamin A equiv.	42%
2	beta-Carotene	337ug
3	lutein zeaxanthin	36%
4	Thiamine (B1)	0.067 mg
5	Riboflavin (B2)	0.162 mg
6	Niacin (B3)	1.114 mg
7	Pantothenic acid (B5)	0.57 mg
8	Vitamin B6	0.149 mg
9	Folate (B9)	62ug
10	Vitamin C	27 mg
11	Vitamin E	2.5mg
12	Vitamin K	310 µg
13	Calcium	67 mg
14	Iron	1.77mg
15	Magnesium	26 mg
16	Manganese	0.426mg
17	Phosphorus	48 mg
18	Potassium	521mg
19	Sodium	46 mg
20	Zinc	0.5mg

7.2. Figures

Figure 1. Different stage of coriander plant



ACKNOWLEDGMENTS

A great support and Guidance from the principal of Vidyabharati Science College Karanja lad Dr. P.R.Rajput, Dr. Prashant N. Muskawar, Assistant Professor Amolkachand science college, Department of Chemistry Yavatmal, Dr. Vijay H.Masand, Assistant Professor Vidyabharati Science College, Department of Chemistry Amravati.

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