



Groundnut: A low cost healthy alternative to Almonds, Cashew nut, Pistachio and Walnuts



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Since time immemorial, nuts are consumed as a part of the diet throughout the world. Records of eating pistachios had been found date back to the Stone Age. Pistachio consumption has been documented since 7000 BC, which indicate that, the Arabians, Persians and Romans utilized the nuts in their cookery. This practice was later defused to European countries. Nuts travelled from Persia to China throughout the colonization of Asia and rose to prominence as precious delicacies. Nuts were preserved and dried in the Scandinavian nations as a food source for the long, severe winters. Nuts and seeds are still consumed today in many different forms all over the world, including as snacks, spreads, ingredients in recipes, and delicacies.

Among the other nuts, groundnut belongs to the Leguminosae family and it's not a true nut. Researchers have discovered many chemicals in groundnuts and its skin that may offer health benefits beyond simple nourishment. On the other hand, groundnuts contain comparatively higher amount of protein being a legume. The "poor man's almond" is another term for groundnuts. This is due to the fact that groundnuts are a more readily available and reasonably priced source of protein and good fats than almonds, which makes them a cost-effective choice for many people. Groundnuts are just as nutritious as almonds, having protein, fibre, and good fats, yet being less expensive. Groundnuts are high in protein and low in carbs. Despite their high fat content, they are a healthy fat that lowers blood cholesterol, hence reducing the risk of heart disease and aiding in the battle against cancer. Similar levels of other nutrients are found in groundnuts as in almonds or other nuts. People with diabetes or those trying to lose weight can be benefited from groundnuts and they can go for different snack options prepared from groundnut. A 100g of groundnut seeds can provide 588 Kcal energy with negligible sodium content making it beneficial for people suffering from high blood pressure. It has also appreciable amount of iron (1.55 mg/100g) and folate (62 µg/100g) content making it a suitable food for anaemic people.

Almonds and groundnuts can both aid in weight loss. Groundnuts have more protein, which also helps with hunger control, while almonds offer more fibre, which makes people feel fuller for longer period. Groundnut contains ample amount of vitamins and minerals.

In global market following reasons cause a rise to global demand of groundnuts:

- It can be consumed in the form of various snacks or raw.
- Groundnut market has been magically raised as demand of plant based alternate protein gained popularity for the vegans.
- Comparatively Europe imports more groundnut than other countries in the world and by 2026 the European market is projected to grow to 1.35 billion dollars.

Groundnut, a vital oilseed crop in India, has the leading place when it comes to about land under cultivation and the second in production, behind soybean. On a global scale according to 2022 production China dominates in groundnut production with 18.381 million tonnes, then followed by India with 10.135 million tonnes, Nigeria with 4.284 million tonnes, the United States of America with 2.526 million tonnes, and Myanmar with 1.741 million tonnes. These figures equal to 33.89, 18.68, 7.89, 4.66, and 3.21 per cent of the overall global production of 54.24 million tons in 2022.

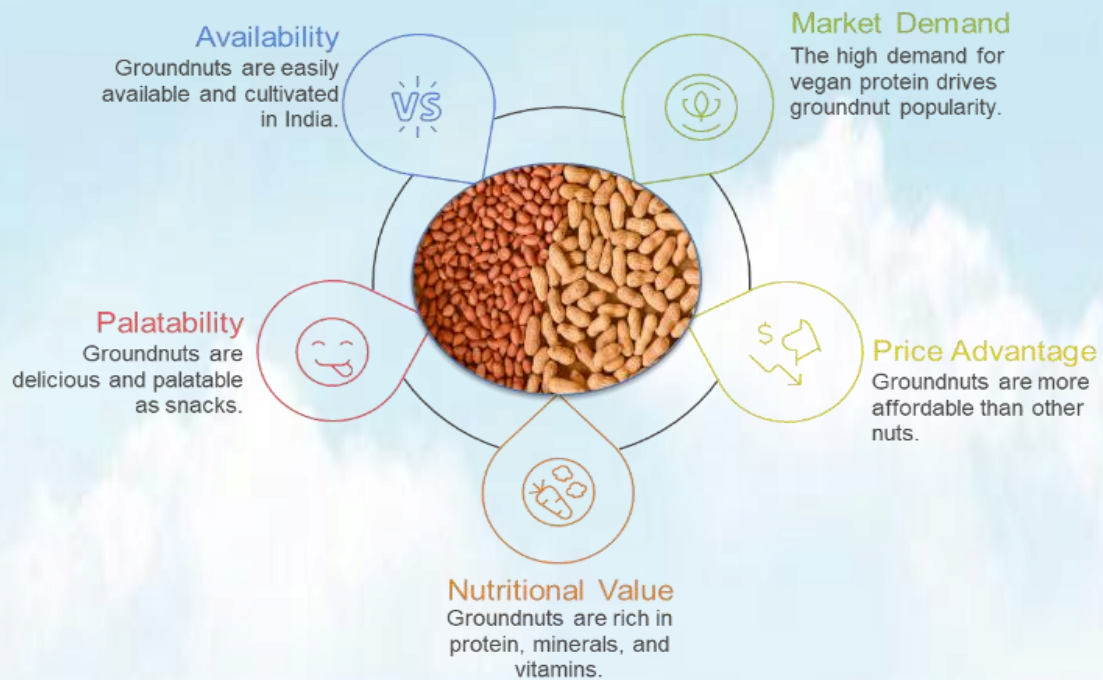


Fig. 1: Possible reasons for groundnut which make them more lucrative compared to other nuts.

In India, the most significant groundnut producing states include Gujarat, Rajasthan, Andhra Pradesh, Karnataka, and Tamil Nadu. Based on the third advance estimate 2024-25, groundnut crop is anticipated at 118.96 lakh tonnes. Within the states, Gujarat ranks highest in groundnut output with 51.81 lakh tonnes followed by Rajasthan (21.24 lakh tonnes), Madhya Pradesh (15.75 lakh tonnes), Tamil Nadu (7.56 lakh tonnes) and Uttar Pradesh (4.44 lakh tonnes).

In general, groundnuts are less expensive to produce than other nuts like cashews or almonds. This is mostly because groundnuts are easier and less expensive to grow and are classified as legumes rather than tree nuts. Tree nuts need more labour-intensive techniques and take longer period to grow, whereas groundnuts are collected mechanically and grow in the ground. The output of groundnuts, or groundnuts, in India greatly outpaces that of other nuts, such as cashews, walnuts, and almonds. Tamil Nadu, Madhya Pradesh, Rajasthan, and Gujarat are the top producers of groundnuts. In certain steep areas of Himachal Pradesh and Jammu and Kashmir, almonds are grown. Tamil Nadu, Karnataka, Odisha, Andhra Pradesh, and Maharashtra are the main cashew-producing states.

A number of compounds in groundnuts and their skins have been identified by researchers as having potential health advantages beyond basic nourishment. Groundnuts have been marked as a functional food as it contains several biochemical components, including Coenzyme Q10, that supports the heart during periods of low oxygen, such as high elevations and blocked arteries. It is also important sources of dietary fiber and contain a variety of essential nutrients, that include many B group vitamins, vitamin E, minerals such as potassium, magnesium, zinc, iron, and minerals which have anti-oxidative potentiality like manganese, copper, and selenium. The antioxidant activity in groundnuts mostly is attributable to the whole peanut seed biomass which include flavonoids and stilbene like resveratrol different phenolic acids such as coumaric acid, caffeic acid, etc. Fermented groundnut food has been utilized to investigate their anti-oxidative properties. UNESCO had already declared groundnut as Ready-to-use Therapeutic Food (RTUF). Hence, in a nutshell, peanut can be considered as comparatively cheap, nutritive, easily available alternative option to the other nuts, like cashew, almond, pistachio and walnut in India.

Table 1: Nutritional components of different nuts (per 100 g)

Nut	Protein (g)	Fat (g)	Carbohydrate (g)	Fibre content (g)	Ash (g)	Energy value (Kcal)	Cost/Kg in India (Approx.)
Groundnut	23.2	43.3	26.5	8	2.2	588	100-150
Almond	21.4	51.1	20	10.8	3.16	626	700-1000
Cashew nut	17.4	38.9	36.3	4.1	2.6	565	1000-1500
Pistachio	20.5	45	27.7	7	2.83	598	3000-3200
Walnut	14.6	69.7	10.9	5.2	1.64	730	1000-1200
RDA as per WHO (per day basis)	Men- 60 Woman-55	Men- 25-40 Woman-20-30	Men- 287 Woman- 177	-	-	Men- 2320 Woman-1900	-

Table 2: Mineral components of different nuts (per 100 g)

Nut	Sodium (mg)	Magnesium (mg)	Potassium (mg)	Calcium (mg)	Copper (mg)	Zinc (mg)	Iron (mg)	Phosphorus (mg)	Manganese (mg)	Molybdenum (mcg)	Selenium (mcg)
Groundnut	1	180	636	49	0.46	2.78	1.55	380	1.68	-	17.8
Almond	<2.5	258	733	254	0.91	2.86	3.74	503	2.15	45.3	-
Cashew nut	5	251	638	42	2.22	5.07	5.99	532	1.95	-	20.7
Pistachio	<2.5	110	947	117	1.05	2.18	3.46	500	1.05	-	23.1
Walnut	<2.5	142	424	88	1.21	2.76	2.24	365	3	21	-
RDA as per WHO(per day basis)	Men- 2100 Woman- 1900	Men- 340 Woman- 310	Men- 3750 Woman- 3225	Men- 600 Woman- 600	General -1.7	Men- 12 Woman -10	Men- 17 Woman- 21	General-600	General-4	General-45	General-40

Table 3: Vitamin components of different nuts (per 100 g)

Nut	Vitamin A (IU)	Thiamine B1(mg)	Riboflavin B2(mg)	Niacin B3(mg)	Vitamin B5(mg)	Vitamin B6(mg)	Folate (µg)	Cobalamin (µg)	Ascorbic acid(mg)	Vitamin E(mg)
Groundnut	0	0.443	0.100	13.695	1.411	0.259	62	0	0	7.024
Almond	-	0.21	1.14	3.62	0.47	0.14	44	-	-	25.63
Cashew nut	0	0.423	0.058	1.062		0.417	25	-	0.5 mg	0.90
Pistachio	266 IU	0.70	0.23	1.37	0.51	1.12	51	0	3	2.17
Walnut	20 IU	0.341	0.15	1.125	0.570	0.537	98	0	1.3	0.7
RDA (per day basis)	General- 2000	Men- 1.2 Woman-1.0	Men- 1.4 Woman-1.1	Men- 16 Woman-12	General-5	General-2.0	General-200	General-1.0	General-40	General-15

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