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Groundnut- the king of oil seeds

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Introduction

Groundnut (*Arachis hypogaea* L.) is an important oil seed crop which is primarily self-pollinated in nature, widely grown in tropical and subtropical areas worldwide ranging between 40°S to 40°N. The origin of groundnut is thought to be in the Mato Grosso region of Brazil, near the Gran Pantanal (Krapovickas, 2017). Arachis compromises the term Arachis hypogeae is derived from two Greek word "arachos" meaning weed and "hypogeae" meaning underground, which simple describe the nature of the crop (Vara Prasad *et al., 2010*). Genomic and cytoplasmic evidences have been found on evolution of cultivated groundnut (2n= 4x = 40) which is an allotetraploid. (Kochert *et al*., 1996). It is also known as peanut, earthnut, monkey nut, moongfal etc. Groundnut is an important crop rich in nutrient content, oil content and could also be used as fodder crop. There are mainly three types of modern groundnut cultivars present in the market namely: Virginia, Spanish, and Valencia. Virginia type have longer crop duration while Valencia and Spanish type has shorter (Nautiyal *et al.*,1999).

Crop status In India

India is the second largest producer of groundnut (10.13 million tons) in the world while, Chaina is the leading producer of groundnut (18.32 million tons). Groundnut is also cultivated in Nigeria, Argentina, United States, Sudan, Senegal, Brazil (FAOSTAT, 2022). Major groundnut producing states of India are Gujarat (36%), Rajasthan (17%), Tamil Nadu (7.5%), Andhra Pradesh (5.13%), Telangana (3.23%), (ANGRAU Groundnut Outlook Report: January to December 2022). In the year 2022 approximately 10.11 million tons groundnut were produced from 5.75 million hectares of land with a yield of 1759 kg/ha (Agriculture Statistics at a glance).

Varieties

1. **Gujarat:** ICHG 00440, JL 501, GJG-HPS-1, GJG-22, GJG-17, KDG-128, TCGS-1043
2. **Rajasthan:** TG-39, PBS-24030, CSMG 9510, JSSP 15, KDG-128, RG-559-3
3. **Tamil Nadu:** R 2001-3, ICGV 00348, VRI (Gn) 7, JSP-39, ICGV-00350, VG-09220
4. **Andhra Predesh:** R 2001-3, ICGV 00348, Phule Warna (KDG-128), KDG-123

https://oilseeds.dac.gov.in/Groundnut.aspx

Botanical description

Groundnut is an annual herbaceous plant typically grown to a height of 30 to 50 cm. The plant consists of opposite, pinnate leaves with four leaflets. All the leaflets are grown up to 1 to 7 cm length and 1 to 3 cm width (Annadurai *et al*., 2009). The flowers are very similar to pea flower in terms of, shape and size. The flowers are bright yellow in colour and cleistogamous in

nature. Groundnut exhibits epigeal germination in which the cotyledons are carried out of the soil surface with the help of hypocotyls and further development takes place (Dwivedi *et al*,1981). Virginia and Spanish-Valencia were initially two major botanical groups of Arachis hypogeae on the basis of branching pattern. Based on inflorescences they were categorized in two branching pattern namely, alternate branching and sequential branching (Singh, 2004).

Nutritional and economic prospective

Groundnut is a rich source of protein and oil, on a dry seed basis the seeds contain almost 44-56% oil and 22-30% protein. They also contain large amounts of vitamins E, K, and B group and minerals C, Mg, K, and P (savage *et al*., 1994). According to Crocker *et al*., 1957; Rao *et al*., 1965 and Oke, 1967 groundnut seeds contain 9.5 to 19.0% total carbohydrate which is very less in quantity compared to cereals. Groundnut is rich in unsaturated fatty acids and evidences have been also found on its beneficial effects on lowering the rate of coronary artery disease (Kris-Etherton, 1999, Sabate *et al*., 2001). India is the world's largest producer of oilseeds and this sector plays an important position in the agricultural economy of the nation. Among all the crops other than grains, major productions are carried out through oilseed crops in the country. Out of these acreages, yields, and monetary values generated, oilseed crops take the second position after food grains (Jha *et al*., 2012)

Conclusion

Incorporating groundnut into our diet can offer numerous health benefits, it is also suitable for the diabatic patients as it is low in carbohydrate. At the same time, it is beneficial for our heart health as it contains unsaturated fatty acids. There are numerous ways to consume groundnut like boiled, chatni, snacks, byproducts of groundnut are also available in the market. Cultivation of groundnut by farmers should also be encouraged, it can be cultivated in the intercropping pattern also. Being a leguminous crop, it also enriches the soil heath. Considering all the aspects of nutritional benefits, food security and environmental sustainability it is concluded that groundnut cultivation and

consumptions should be encourage in the country.

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