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NATURE'S NUTRITIONAL GEMS: HARNESSING THE POWER OF INDIGENOUS SEEDS AND THEIR HEALTH-BOOSTING COMPOUNDS

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India is rich in biodiversity and have varied types of flora and fauna. We have rich heritage of Ayurveda. Traditional knowledge of this system of medicine has gained its popularity globally. Today we will be discussing on health benefits of locally and easily available seeds. Seeds can offer various health benefits due to their rich nutritional content and active ingredients. The specific benefits will depend on the type of seed. Here are some common seeds and their potential health benefits:

Chia Seeds:

Active Ingredients: Omega-3 fatty acids, fiber, protein, calcium, magnesium, and antioxidants.

Health Benefits: Improved heart health, reduced inflammation, better digestion, enhanced bone strength, and regulated blood sugar levels.

Flaxseeds:

Active Ingredients: Omega-3 fatty acids, lignans, fiber, and antioxidants.

Health Benefits: Lowered cholesterol levels, improved digestive health, reduced risk of certain cancers, and potential anti-inflammatory effects.

Pumpkin Seeds:

Active Ingredients: Protein, healthy fats, magnesium, zinc, iron, and antioxidants.

Health Benefits: Promoted heart health, improved prostate health, better sleep quality, and potential anti-parasitic properties.

Sunflower Seeds:

Active Ingredients: Vitamin E, magnesium, selenium, copper, and antioxidants.

Health Benefits: Enhanced skin health, improved immune function, reduced risk of chronic diseases, and better thyroid function.

Sesame Seeds:

Active Ingredients: Calcium, magnesium, iron, zinc, fiber, and antioxidants.

Health Benefits: Strengthened bones, improved oral health, potential anti-inflammatory effects, and better blood sugar regulation.

Hemp Seeds:

Active Ingredients: Complete protein, omega-3 and omega-6 fatty acids, fiber, and antioxidants.

Health Benefits: Support for heart health, improved skin conditions, better brain function, and potential anti-inflammatory effects.

Pomegranate Seeds:

Active Ingredients: Vitamin C, antioxidants (especially punicalagins and anthocyanins).

Health Benefits: Boosted immune system, potential anti-cancer properties, improved heart health, and enhanced skin health.

Watermelon Seeds:

Active Ingredients: Protein, healthy fats, magnesium, iron, and antioxidants.

Health Benefits: Improved cardiovascular health, better digestion, potential diuretic properties, and a good source of essential nutrients.

It's important to note that while these seeds can be beneficial, they should be consumed as part of a balanced diet. Additionally, some people may have allergies or sensitivities to certain seeds, so it's always a good idea to consult with a healthcare professional or nutritionist before making significant changes to your diet.

Parts of Seeds to be Consumed

The parts of seeds that are typically consumed vary depending on the type of seed. Here are some common seeds and the parts that are commonly consumed:

Chia Seeds: Whole chia seeds are often consumed. They can be soaked in liquid to create a gel-like texture, which is commonly used in puddings and smoothies.

Flaxseeds: Whole flaxseeds are typically consumed, but they have a hard outer shell that is difficult to digest. To enhance digestibility and nutrient absorption, it's recommended to grind flaxseeds before consumption.

Pumpkin Seeds: Both the hulled inner kernels (pepitas) and the outer shells can be consumed. The outer shells are edible and can be eaten roasted, while the hulled seeds are often used in cooking and as snacks.

Sunflower Seeds: Sunflower seeds can be consumed in their hulled form as a snack, sprinkled on salads, or added to various recipes.

Sesame Seeds: Sesame seeds are usually consumed whole or ground, and they are often sprinkled on top of dishes for added flavor and texture.

Hemp Seeds: Hemp seeds can be consumed shelled or unshelled. The shelled seeds (hemp hearts) are more commonly used in foods like salads, smoothies, and yogurt.

Pomegranate Seeds: The arils (juicy seed sacs) of the pomegranate are the edible part, while the bitter white membrane is typically discarded.

Watermelon Seeds: Watermelon seeds can be roasted and eaten as a snack, similar to pumpkin seeds.

When consuming seeds, it's essential to be mindful of any allergies or sensitivities. Some people may have allergies to specific seeds, so it's a good idea to start with small quantities if you haven't consumed them before. Additionally, some seeds, like flaxseeds, are better digested and nutrient-absorbed when ground, so it's beneficial to consider the best form of consumption for each type of seed.

How to Keep or Store These Seeds for Round-The-Year Consumption?

To keep or store seeds for year-round consumption, it's crucial to protect them from moisture, light, and heat, as these factors can cause the seeds to go rancid or lose their nutritional value. Here are some general guidelines for storing different types of seeds:

Chia Seeds, Flaxseeds, and Hemp Seeds

Store in airtight containers: Place the seeds in sealed, airtight containers to prevent exposure to air and moisture.

Refrigerate or freeze: To extend their shelf life, consider storing them in the refrigerator or freezer. The cold temperatures help prevent oxidation and maintain freshness.

Ground seeds: If you grind flaxseeds, it's best to store them in the refrigerator or freezer to preserve their quality.

Pumpkin Seeds and Sunflower Seeds

Dry and roast: Before storing, make sure the seeds are thoroughly dried and roasted to reduce moisture content and increase shelf life.

Airtight containers: Store in airtight containers in a cool, dry place.

Sesame Seeds:

Dry roast: Dry roast sesame seeds before storing to remove any moisture and enhance their flavor.

Airtight containers: Store in airtight containers in a cool, dry place.

Pomegranate Seeds

Fresh or frozen: Pomegranate seeds can be stored in the refrigerator for a few days if fresh. For longer storage, consider freezing them.

Watermelon Seeds:

Dry and roast: Dry the watermelon seeds thoroughly and roast them before storage to remove moisture.

Airtight containers: Store in airtight containers in a cool, dry place.

Additional tips for Storing Seeds

Label containers: Ensure you label each container with the type of seed and the date of storage. This helps you keep track of their freshness.

Check for rancidity: Periodically check the seeds for signs of rancidity, such as an off smell or taste. If they have gone rancid, discard them.

Keep away from light and heat: Store seeds in a dark, cool place away from direct sunlight and heat sources.

Purchase in small quantities: Consider buying seeds in smaller quantities to ensure you can consume them before they go bad.

By following these storage guidelines, you can enjoy the health benefits of various seeds throughout the year, ensuring they remain fresh and nutritious for extended periods.

From Where We Can Procure These Seeds?

You can procure these seeds from various sources, depending on your location and preferences. Here are some common places where you can find these seeds:

Grocery Stores: Many well-stocked grocery stores and supermarkets carry a variety of seeds, especially popular ones like chia seeds, flaxseeds, pumpkin seeds, sunflower seeds, and sesame seeds. They are often available in the health food section or the bulk food aisle.

Health Food Stores: Specialty health food stores often offer a wider selection of seeds, including organic and bulk options. These stores may also have hemp seeds and other less common seed varieties.

Farmers' Markets: Local farmers' markets are excellent places to find fresh, locally produced seeds, especially watermelon and pomegranate seeds. Some vendors may also sell roasted pumpkin seeds.

Online Retailers: You can find a vast selection of seeds on various online platforms, including major retailers and specialized health food stores. Online shopping allows you to access a wider variety of seeds, and you can often find bulk options for more cost-effective purchasing.

Seed Suppliers or Nurseries: Some seeds, such as pumpkin seeds and watermelon seeds, can be purchased from seed suppliers or nurseries for gardening purposes. If you grow your own fruits or vegetables, you can harvest the seeds from ripe produce and save them for consumption.

Health Food Websites and Co-ops: Websites dedicated to health foods or co-operative buying groups often offer organic and sustainably sourced seeds.

Ethnic Grocery Stores: For less common seeds used in specific cuisines, consider visiting ethnic grocery stores that cater to specific regional foods.

When purchasing seeds, especially if you plan to consume them regularly, it's a good idea to look for reputable sources that offer high-quality and fresh products. If possible, opt for organic seeds to minimize exposure to pesticides and other chemicals. Always check the expiration date and look for signs of freshness, such as intact packaging and a pleasant smell. By being mindful of where you source your seeds, you can ensure you get the best possible products for your year-round consumption. Indigenous seeds, often referred to as traditional or heirloom seeds, are seeds that have been passed down through generations within specific indigenous communities. These seeds are adapted to local environments and have been cultivated and preserved by indigenous peoples for their sustenance and cultural significance. They offer a wide array of nutritional compounds that can be highly beneficial for health.

Here are Some Examples of Indigenous Seeds and Their Powerful Nutritional Compounds

Quinoa (*Chenopodium quinoa*): Quinoa is a seed native to the Andean region of South America and has gained popularity worldwide for its exceptional nutritional profile. It is a complete protein, meaning it contains all nine essential amino acids required by the human body. Quinoa is also rich in dietary fiber, vitamins (such as B-vitamins, vitamin E, and folate), minerals (including magnesium, iron, and phosphorus), and antioxidants like quercetin and kaempferol.

Chia Seeds (*Salvia hispanica*): Chia seeds were widely used by the Aztecs and Mayans in Central America. They are an excellent source of omega-3 fatty acids, particularly alpha-linolenic acid (ALA), which is beneficial for heart health. Chia seeds are also high in fiber, protein, calcium, magnesium, and antioxidants, making them a nutritious addition to the diet.

Amaranth (*Amaranthus spp.*): Amaranth is a grain-like seed that has been cultivated in various regions across the world for thousands of years. It is rich in protein, containing a higher amount compared to most other grains. Amaranth also provides essential minerals such as iron, magnesium, phosphorus, and potassium, as well as vitamins like B-vitamins and vitamin C.

Teff (*Eragrostis tef*): Teff is an ancient grain indigenous to Ethiopia and Eritrea. It is a good source of complex carbohydrates, dietary fiber, and protein. Teff is also rich in iron, calcium, and B-vitamins, particularly thiamin (vitamin B1).

Black Cumin (*Nigella sativa*): Also known as "Nigella" or "Kalonji," black cumin seeds have been used in traditional medicine systems in the Middle East and South Asia for centuries. These seeds contain thymoquinone, a potent antioxidant compound with potential anti-inflammatory and immune-enhancing properties.

Pumpkin Seeds (*Cucurbita pepo*): Pumpkin seeds have a long history of consumption in indigenous cultures, and they are a valuable source of various nutrients. They are rich in healthy fats, protein, dietary fiber, magnesium, zinc, iron, and antioxidants like vitamin E and carotenoids.

Sunflower Seeds (*Helianthus annuus*): Sunflower seeds were cultivated and consumed by Native American tribes long before European settlement. They are an excellent source of vitamin E, a powerful antioxidant, as well as protein, healthy fats, and minerals like magnesium and selenium.

Conclusion

It's important to note that the nutritional value of indigenous seeds can vary based on growing conditions, processing methods, and storage. Including a diverse range of foods, including these indigenous seeds, in one's diet can contribute to overall health and well-being. However, if you have any specific health concerns or dietary requirements, it's always a good idea to consult with a healthcare professional or a registered dietitian.

References

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