

Role of horticulture during COVID-19

Nutritional and health benefits of spices

By

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Outline

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- Definition and brief description of spices
- Why using spices is important nutritionally
- Growing spices in gardens especially in during and post COVID-19
- Spices found locally and their perceived health benefits
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Spices – definition and brief description of uses

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- Plant derived seasonings used for culinary purposes.
 - Spices are usually ground, crushed, or processed parts of leaves, seed, bark or root parts of herbal plants.
 - In many publications spices and herbs are used interchangeably
 - Herbs are said to be grown for fresh cut leaves or soft plant parts, and used in such fresh form
 - Herbs may be dried and used later (spice).



Description and uses

- Eating healthy and nutritious foods does not mean eating tasteless food.
- This is where the use of spices comes in to make our foods tastier and flavorful!
- Spices (including herbs) have been used for both culinary and medicinal purposes in various cultures the world over for centuries.
- Spices occur in a variety of flavor, color, and aroma
- Enhance and compliment flavor, aroma and colour in foods to improve organoleptic quality of foods and beverages.

- Stimulate appetite and make food more visually appealing
- used to mask tastes that you may not like



Why using spices is important nutritionally



- Enjoying food and mealtimes is key to maintaining healthy habits for the long term.
- flavorful foods are enjoyed and may help promote sustainable and healthy dietary habits.
- To motivate people to improve their diet quality, including a variety of healthier foods, spices (and herbs) in cooking is very important.
- A healthy way to get you out of boring meals and meal times, by making them delicious and interesting.
- Contribute to a wide range of nutrients and health benefiting non-nutrient bioactive compounds in foods.
- Have important pharmacological and medicinal properties
- Helps to reduce salt, sugar, fat and other artificial/ synthetic seasonings added during cooking (**which may predispose to certain non-communicable diseases**).



Nutritional importance of spices



- As part of our diet, culinary spices (and herbs), in addition to fruits and vegetables, could provide us with additional sources of natural antioxidants
- Based on the literature reviewed they can also protect people from acute and chronic diseases, due to their high antioxidant activity, related to their flavonoids and total polyphenol content
- Vegetable dishes especially (including vegetarian type dishes) become more appetizing when prepared with natural spices (and herbs).

Growing spices in our gardens during and post COVID-19

- Examples of horticultural plants that I grow in my garden and use to make spices: rosemary, turmeric, ginger, basil (mint), cuban oregano
- Growing your spices (and herbs) is important during/ post COVID-19 and has some of the following benefits:
 - you could have them fresh or process them into dry form for a more prolonged use.
 - Interestingly, you can create flavor combinations that suit your preferences
 - habitual intake/ use in everyday cooking because it helps you to have access to them whenever you need them.
 - Not necessary to look for exotic spices- there are some of the best spices in our local markets too.
- But more interestingly, You can actually grow your herbs in containers, small pots or sacks at home and keep busy
- Can also generate income for the household





Spices found locally and their perceived health benefits

- the literature has identified the bioactive ingredients in the spices that confer the perceived health benefit from a nutrition point of view.
- They are a group of phytochemicals called polyphenols and flavonoids mostly found in spices especially concentrated (high levels) in their dried form.
- Poly phenol rich foods are known for their anti-oxidant properties (Antioxidants are substances that prevent oxidation of other compounds or neutralize free radicals.).
- From research and use in folk/ traditional medicine (ethnomedicinal use) other beneficial effects are, anti-inflammatory, anti-cancer, neuro-protective, anti-microbial, anti-diabetic, anti-asthmatic etc..
- The above contribute to their perceived health benefits in protecting the body against non-communicable and communicable diseases (like COVID 19)
- Spices are also considered as functional foods because some have beneficial health effect on certain target functions in the body beyond basic nutritional functions



Specific examples with reported
health benefits



Piper guineense Schum and Thonn (Piperaceae) is commonly known as African black pepper, 'uziza' in Igbo South East, and 'iyeree' in Yoruba south Western Nigeria



cinnamon (comes from bark of cinnamon tree) (cinnamon and high blood sugar, cholesterol and triglyceride reduction,



Turmeric and inflammation- a very popular and important component found in it is curcumin. Found to have anti-inflammatory properties



Garlic- strong smelling bulb (protection from heart disease. keeps blood vessels flexible. Reduce cholesterol and triglyceride



Ginger – helps to relieve nausea, treat stomach upset, diarrhea and phlegm. It is a zingy spice that adds zest to the foods and drinks, anti-inflammatory especially arthritis knee pain

Conclusion

- Cautionary note! Most studies that show benefits use supplements to control the dose (amount) of spice (or use the active ingredient directly) that participants consume. hence these doses are much higher than would normally be consumed when they are added to our usual diets.
- It is important to consider their function within the dietary context of (traditional and developed cuisines/ recipes) since they are used for culinary purposes and how the interactions with other food constituents enhance or diminish their health benefits
- Therefore every day use/ habitual intake, (being consistent) will bring benefits over time, for the following reasons:
 - Culinary spices (and herbs) encourage variety in food intake.
 - Supports nutrient diversity by making available new food choices.
 - When used in vegetable dishes (either as meals or drinks), it increases vegetable intakes which is linked with improved health (including vegetarian options may be more appetizing)
 - **It improves taste of soups, stews, marinades when low-fat cooking is done**
 - They are healthier alternative to salt and synthetic/ artificial seasonings

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