



IMPORTANCE AND HEALTH BENEFIT OF FRUITS: AN OVERVIEW

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ABSTRACT

Fruits are an important source of energy for human beings but they are perishable items. Hence since many years various products are made from juice of fruits, so that they can be consumed during off season as well. Products like juice, jam, jelly, squash etc. are made from fruits since long. With the advent of technology and preservatives, shelf life of such products has gone up and they can be preserved for many months with proper packing. The proposed location of this activity could be many centres in India as number of tropical fruits are grown in the country. However, this note deals with an article in Dharmapuri district as several fruits like, Banana, Mango, Grapes, Lemon, Guava, Papaya, Tomato, Sapota, Watermelon, Custard Apple and Pomegranate etc. are cultivated in large quantities. Hence, it is suggested to undertake fruit processing activity. In this study objectives will be variety of fruits are available in Dharmapuri district and understand why fruits are important for good health. Methodology adapted for this study based on theoretical research. This research based on primary and secondary data has well structured questionnaire was administered on the study units. Tools used for collected data were classified and tabulated in a systematic manner. Simple percentage analysis, mean and standard deviation, mathematical and computational tools and techniques including; Pearson chi-square test, tabulation analysis etc. are being used SPSS packages for primary data analysis. And offering the suggestion explore challenges and to provide practical solution.

Key words: Fruit Products, Importance of Fruits, Health Benefit,

Introduction

Fruits are nature's wonderful gift to the mankind; indeed, they are life-enhancing medicines packed with vitamins, minerals, anti-oxidants and many phyto-nutrients (Plant derived micronutrients). They are an absolute feast to our sight, not just because of their colour and flavour but for their unique nutrition-profile that help human body free from diseases and keep it healthy. Fruits are low in calories and fat and are a source of simple sugars, fiber, and vitamins, which are essential for optimizing our health. Fruits provide plenty of soluble dietary fiber, which helps to ward off cholesterol and fats from the body and to help in smooth bowel movements as well as offer relief from constipation ailments. Fruits compose of many anti-oxidants such as poly-phenolic flavonoids, vitamin-C, and anthocyanins. These compounds, firstly, help human body protected from oxidant stress, diseases, and cancers, and secondly; help the body develop capacity to fight against these ailments by boosting our immunity level. Many fruits, when compared to vegetables and cereals, have very high anti-oxidant values, which is measured in terms of their "Oxygen Radical Absorbent Capacity" or (ORAC).

Definition

A fruit is defined as the developed ovary of a seed plant with its contents and accessory parts, as the pea pod, nut, tomato, or pineapple. It is the edible part of a plant developed from a flower, with any accessory tissues, as the peach, mulberry, or banana. A fruit is the often sweet and fleshy part of a plant that surrounds the seeds, although some fruits like berries bear the seed on the outside of the fruit.

Review of literature

State of India Agriculture (2012)¹ in his article entitled The Indian economy is growing at compound annual growth rate of 8 percent and higher expenditure elasticity for fruits & vegetables and livestock as compared to cereals, there is an increasing pressure on the prices of such high value commodities which are perishable in nature.

Pradyumn Sharma (2011)² states that with the help of the cold chain management, there should be a relevant solution of the huge amount of food wastage in India. Cold chain is

¹Indian agricultural research institute 2012. New Delhi, India.

² Pradyumn and Sharma, G., & Singh, S. (2011). Economic Analysis of Post-harvest Losses in Marketing of Vegetables in Uttarakhand. *Agricultural Economics Research Review*, 24, 309-315.

responsible for maintaining the quality of the fruits and vegetables and extending the shelf life of the commodities.

Giridhari Lal, G.S. Siddappa (2009)³ write that fruits and vegetables are among the utmost significant foods of mankind as they are nutritive as well as indispensable for the continual maintenance of health. So with the increase in the processing of the fruits and vegetables the nutritive value of the products also increasing.

Statement of the problem

India is the one of the largest and most varied fruit producing nations in the world. Fruits cultivation is many countries old and the farmers are unaware of the improved cultivation. They have many problems relating to cultivation, harvesting and marketing. In the cultivation stage they have problem with decrease in rainfall, natural calamities causes fluctuation in production and frequent drought conditions hampered the development of agriculture. Fruits as part of an overall healthy diet are likely to have a reduced risk of some chronic diseases. Fruits provide nutrients vital for the health and maintenance of our body. So, this study also concentrates on importance and health benefits of fruits and offering the suggestion explore challenges and to provide practical solution

Objectives of the study

1. To study the variety of fruits are available in Dharmapuri district.
2. To know about the important of fruit for good health.
3. To offer suggestion to include more fruit among the family members.

Methodology of the study

This study based on theoretical research. The study is confined to units in Dharmapuri district. This study is based on primary and secondary data has well structured questionnaire was administered on the study units to elicit opinion on their perception of production and marketing problems and health benefits. Tools used for collected data were classified and tabulated in a systematic manner. Simple percentage analysis, mean and standard deviation ,Various statistical, mathematical and computational tools and techniques including; Pearson chi-square test, tabulation analysis etc. are being used, using MS-Excel and SPSS software packages for primary data analysis.

³Bhatia, S., Siddappa, G.S. and Lal, Giridhari (2009), Product development from the fruits, Indian journal agriculture, 25: 408.

An Overview

Fruit Group

Any fruit or 100% fruit juice counts as part of the fruit group. Fruits may be fresh, canned, frozen, or dried; any may be whole, cut-up, or pureed. Anthocyanins are flavonoid category of poly-phenolic compounds found in some "blue-fruits" like blue-black grapes, mulberries, acaiberry, chokeberry, blueberries, blackberries, and in many vegetables featuring blue or deep purple pigments. Consumption of fruits rich in blue pigments offers many health benefits. These compounds have potent anti-oxidant properties that help remove free radicals from the body, and thus offer protection against cancers, aging, infections, etc. Majority of these pigments in the fruits tend to concentrate just underneath their skin.

Fruit's health benefiting properties are because of their richness in vitamins, minerals, micro-nutrients, pigment anti-oxidants. Altogether, these compounds help the body prevent or at least prolong the natural changes of aging by protecting from damage and rejuvenating cells, tissues, and organs. Their overall benefits are manifold! Fruit nutrition benefits are enormous! Including fruits in daily diet, you are protecting yourself from minor ailments like wrinkling of skin, hair-fall, and memory loss to major ailments like age-related macular degeneration (AMRD) of the retina in the eyes, Alzheimer's disease, colon cancers, weak bones (osteoporosis)...etc., and the list of fruit nutrition benefits simply never ends.

Dharmapuri district major Horticulture Crops

Major horticulture crops cultivated in this district are fruits crops like mango and banana, vegetables like tomato, brinjal, bhendi, onion, chillies and tapioca, spices like turmeric, chillies and tamarind, plantation crops like betel vine, cocoa and areca nut and flowers like tube rose, jasmine, crossandra, marigold, rose and chrysanthemum, medicinal plants like Coleus and Aloe vera and aromatic plants like Palmarosa

Health benefits of fruits

The health benefits of fruits guarantee you optimum health and a well-built body in the long run. Fruits benefit your body immensely as they are natural sources of vitamins and minerals, which are essential for the proper functioning of the body. Rich in dietary fiber, fruits also help to improve the functioning of the digestive tract. Fruits are an important part of a healthy diet for those who want to lose weight; they give ample energy and nearly every nutrient that your body needs to curb weight gain, without adding any unnecessary fats.

Moreover, fruits help you to stay away from health complications like heat stroke, high blood pressure, cancer, heart ailments, and diabetes. Fruits effectively fight skin disorders and promote healthy hair growth. It is always suggested to eat raw, fresh and ripe fruits because then you experience the real health benefits, rather than consuming them after processing or cooking.

How Do Fruits Help

The human body is an intricate system and hundreds of complex reactions take place in it all the time. For smooth functioning of the body, you need an ample amount of nutrients that are supplied by fruits in a natural way. When you become ill or develop any health disorders, these can be avoided or treated with a healthy diet rich in fruits. With a busy lifestyle, our eating habits have become packed with preservatives and processed foods that are not only devoid of essential nutrients but can also cause some harm to the body. Fruits boost your immune system and keep you in perfect health. Eating fruit and vegetables may promote emotional well-being among healthy young adults. Research suggests that good mood may lead to greater preference for healthy foods over indulgent foods.

Instant Energy Supplier

When you eat fruits, your supply of energy increases in no time; this is one of the prime benefits of fruits that we can utilize in our busy schedules. This is the reason why athletes often eat fruit during and after exercising and why diets for pregnant mothers almost always involve fruits of some kind.

Keeps You Disease Free

The combination of powerful flavonoids, antioxidants, minerals, vitamins, phytochemicals and the countless micro- and macronutrients make fruits very advantageous for your health. The daily consumption of fresh fruits lowers the risk of strokes, high blood pressure, indigestion, cancer, heart disease, diabetes and other chronic diseases. Fruits keep your skin supple, hydrated and nourish it with essential vitamins, minerals and antioxidants, thereby retaining your radiant skin for a long period of time. In fact, if you are tired of using the commercial anti-pimple creams, just try including fruits like berries, apples, or bananas into your daily diet and see the acne disappear quite quickly. Fruits even ensure healthy hair growth and keep your locks lustrous and soft. Some fruits like bananas contain vital chemicals such as potassium, which helps to prevent strokes, high blood pressure, and anxiety. Fruit consumption basically eliminates vitamin and mineral deficiencies and

their associated symptoms. Fruits also have high quantities of water and fiber in them, which helps to keep your digestive tract clean and your weight under control.

Need for Fibrous Fruits

Fibrous fruits aid the digestion process in the body. The fruit skins are rich in dietary fiber, which is a major contributing factor in proper digestion and the excretion process of your body, while simultaneously keeping you safe from problems like gastritis and constipation. However, in some cases, the skin is thick, like in lemons, bananas, melons, and oranges, and cannot be consumed by humans. In those cases, the edible part or the flesh within the skin has plenty of fiber as well.

The fiber content in fruit not only has a brilliant laxative effect but also makes you feel full by adding bulk nutrition to the diet. Fibrous fruits also benefit conditions like heart diseases by reducing hyperlipidemia and hypertension, diabetes mellitus and obesity. Owing to this fibrous composition, fruits also have anti-carcinogenic properties, and are known to prevent colon cancer and fight bowel irregularity disorders.

Important Function of Fruit Juices

Nutritional Benefits

- Fruits juices are **naturally fat free**
- Fruits juices provides **fruit energy**: Fruits, vegetables & their respective juices provide substantial amounts of fruit carbohydrates, which supply energy to power all body work -- from heartbeats and household work to school homework and office work, even for the smile that spreads across our face
- Fruits contain **significant amounts of vitamins & minerals**. Vitamins are required for carrying out many vital functions of the body and many of them are involved in the utilization of the major nutrients like proteins, carbohydrates and fats. Minerals and microelements are necessary for the nerve and muscle function and are the building material for some body tissue
- Fruit juices with NO ADDED SUGAR helps meet 5-a-day plan

Protective Benefits

- Fruits, their respective juices **contain substantial amount of biologically active non-nutrient compounds called phytochemicals**. These protective components exert various beneficial roles in the body

- Fruit Juices are **naturally rich in potassium & low in sodium**. Research indicates that diets rich in potassium & low in sodium helps in maintaining heart health
- Fruit juices are **rich in antioxidant nutrients** that help strengthen body's natural defences
- Fruit juices are a **perfect food supplement**. They are far more powerful than the isolated nutrients found in vitamin pills. Nutrients influence each other and, therefore, they should not be separated because nutrients combined naturally in food work together more effectively than when they are separated as a single supplement

Fruits Are Storehouses for Nutrients

Almost all fruits have immense nutritional value, but obviously the type and quantity of nutrients vary between types. As the composition changes with each fruit, the health benefits also change with them. The beneficial powers of common fruits are discussed below.

Apples: A good example of a complete healthy fruit is the apple; it helps in digestion, strengthens bones, provides relief from asthma, lowers blood cholesterol, prevents cancer and helps in reducing weight.

Pears: Another beneficial fruit is the pear, which is a good source of fiber, vitamin C, B2, E, copper and potassium. Pears are an excellent source of pectin and fiber that effectively lowers cholesterol levels. It is mostly prescribed for infants as it is believed to be a hypoallergenic fruit that is completely safe for young children to ingest.

Grapes: Grapes are also a common fruit that can be easily included in your regular diet. Grapes alleviate indigestion, constipation, fatigue, kidney disorders and eye problems. It is rich in several vitamins and also possesses minerals like calcium, potassium, iron, magnesium, phosphorus and selenium.

Berries: Blueberries, cherries, and blackberries prevent cancer and keep your heart protected. If you include cherries or cherry juice in your diet, you can eliminate the associated pain from arthritis, gout and joint inflammation. Berries have the capability of curing arthritis naturally. Blueberries with high silicon content aid in the functioning of the pancreas and is good for diabetic conditions. Blackberries can naturally control diarrhea and form new blood cells, but it can also have the adverse reaction of promoting constipation. If you mix blackberries with cherries or prune juice, it will not eliminate that constipation.

High sodium and potassium content in gooseberries and huckleberries protect the liver and the intestinal tract.

Zucchini: This fruit provides relief from asthma. Owing to its Vitamin C content, it is a powerful antioxidant, and also has anti-inflammatory properties. Zucchini is mostly known and widely used for weight loss.

Mangoes and Papayas: Mangoes and papayas are rich in beta carotene. Papayas act as powerful antioxidants with an abundance of vitamin C, vitamin E, vitamin D and vitamin A that all aid in the oxidation of LDL cholesterol. This prevents the formation of dangerous plaque that can result in atherosclerosis, heart attacks, or strokes. You get good amounts of vitamin C from papayas, oranges, guavas and Indian gooseberries.

Tomatoes: You might be surprised to know that tomatoes are actually fruits and not vegetables, although we typically consider it as one of the latter. Tomatoes have high vitamin content and they are an excellent blood cleanser.

Citrus Fruits: Fruits rich in vitamin-C like oranges, limes, lemons, and grapefruits are excellent for your overall health. Oranges are consumed widely for healthy skin, teeth, gums, and to keep the lymphatic system healthy. Lemon, the bitter yellow fruit, has been used for vision issues for thousands of years and it also treats disorders ranging from common colds to epilepsy. Lemon juice helps people lose weight as well. Grapefruit lowers cholesterol and has antioxidant properties. Limes help prevent disorders like scurvy, piles, and gout, as well as respiratory and urinary disorders.

Dry fruits: Dry fruits like figs, dates, apricots and raisins are extremely beneficial for your health. Apart from being excellent laxatives, apricots are a great natural remedy for anemic conditions. Figs include potassium, the essential mineral that helps in controlling blood pressure. Raisins effectively treat anemia, acidosis, fever, and sexual weakness. It helps you to gain weight, promotes eye, teeth and bone health. Dates have abundant fiber that helps to prevent constipation.

Fruits Help to Lose Weight

Once you start including a significant amount of fruit in your normal diet, you will begin to see that your weight is being controlled and your health is improving. However, fruits alone cannot reduce your weight. You also need to exercise regularly.

Many surveys done in America showed effective weight reduction after fruits were included in the family's diet. A person who habitually eats fruits will be less inclined to have snacks and junk foods between meals that hardly have any nutritional value. Also, fruits are composed of 90-95% water; therefore it has a powerful diuretic effect on your body, thereby flushing out the nitrogenous wastes and unwanted toxins from the body.

One example of this is Lychee, a fruit that is a great laxative with a negligible amount of calories, and no saturated fats or cholesterol. It also helps to cut down excess body weight. Except for a few fruits like coconuts, avocados and olives, fruits are usually fat-free.

Fruits in Acne Treatment

Acne is one of the most irritating skin disorders that can affect people of any age. With a good amount of fruit in your diet, you can naturally curb this problem rather than opting for expensive dermatological creams. Acne mostly occurs from skin infections and dermatological issues, but there are other reasons for such eruptions as well. Apples are the best option for treating acne; eat the skin of the apple, which has a high level of pectin that helps with constipation, which can be a trigger for acne. Bananas also helps to alleviate acne, as it is high in fiber that again relieves constipation. Berries have excellent cleansing properties and keep you protected from skin disorders. If you eat grapes during the day, it helps to cleanse your skin and body. While papayas rejuvenate your skin and repair minor damage that you may not even notice, lemon juice slowly eliminates the signs and scars from acne spots.

Apart from including fruits in your diet, try to watch your other food habits as well. Reduce caffeine consumption since it increases hormones in your body and thus increases acne. Cut down on red meat and dairy intake as well, since they aggravate your hormonal generation, resulting in acne. You should also keep your skin clean by frequently washing with herbal soaps and mild face wash.

Dry fruits

Dry fruits are rich source of nutrients such as vitamins and minerals. Consumption of some dry fruits daily enhances the overall bioavailability of nutrients. Try raisins (dried grapes), goji berry, apricots, dates, figs, tamarind..., which are indeed very good in iron, calcium, zinc, selenium and manganese. In addition, mixing dry fruits with some fresh fruits would help you get vitamin C which in-turn facilitates complete absorption of iron inside the stomach.

Fruit Juice vs. Raw Fruits

You may often wonder which form of fruit gives you more nutrition – whole fruits or fruit juices. It is actually difficult to say which one gives more nutrition. Although eating whole fruit is considered to be the best way of attaining the full benefits of fruits, fruit juices are also easy and healthy options. Of course, if the fruit juice is composed of 100% fruit without extra preservatives or additives, then it has the same nutritional value.

Normally fruit juices are available in two forms, 100% fruits juices and as fruit pulp + water + sugar. In both cases, preservatives and additives are added to increase the shelf life of the juice. Very few brands contain no preservatives. In fact, fruit juices are considered to be the best way of incorporating nutrition into your child’s diet, as they usually love anything that tastes good. Buying and drinking fruit juices is much easier than buying whole fruits, cutting and then eating them. In other words, it’s better to drink the juice than to have no fruit in your diet at all.

When you make fruit juice at home, they contain the same fiber content as whole fruits, provided you don’t add any artificial flavours and preservatives. However, if bought from the store, these juices may not have the equal fiber content after the vigorous processing. Moreover, when you consume those types of juices, extra sweeteners and additives are added, which is not the case for whole fruits. Thus, with whole fruits, you can keep your weight controlled. When you make fruit juice at home, try to add the edible skin of the fruits to the juice to gain even more nutritional value.

You have probably come across the term “seasonal fruits”, and as a matter of fact, most fruits are considered seasonal. They grow in a particular season depending on their native geography and climate. You may be able to get these fruits throughout the year, but they have usually been in frozen state for a varying amount of time. Eating seasonal fruits during the season ensures that they are fresh. Furthermore, most seasonal fruits can also ward off the disorders that come with the season. For example, in India, green mangoes are quite useful for dealing with the heat of summer. Including seasonal fruits in your diet is a delicious and natural way to stay healthy!

Suggestions

Vegetables and fruit are a handy snack food and are easily carried to work or school. Include them in everyone’s meals and snacks for a healthy, well-balanced diet. Some suggestions include:

- Keep snack-size fruit and vegetable portions easily accessible in your fridge.
- Keep fresh fruit on the bench or table.
- Add fruit and vegetables to your favourite family recipes or as additions to your usual menus.
- Use the colour and texture of a variety of fruit and vegetables to add interest to your meals.
- Limit fruit juice, as it does not contain the same amount of nutrients as fresh fruit. It also contains a lot of sugars. These sugars are not necessarily good for your health, even though they are 'natural'. Instead, have a drink of water and a serve of fruit.

Conclusion

Fruit and vegetables should be an important part of daily diet. They are naturally good and contain vitamins and minerals that can help to keep healthy. They can also help protect against some diseases. Most Australians will benefit from eating more fruit and vegetables as part of a well-balanced, regular diet and a healthy, active lifestyle. There are many varieties of fruit and vegetables available.

Reference

1. Gollner, Adam J. (2010). The Fruit Hunters: A Story of Nature, Adventure, Commerce, and Obsession. Scribner.
2. Watson, R.R. and Preedy, V.R. (2010, eds.). Bioactive Foods in Promoting Health: Fruits and Vegetables.
3. <http://nutritionfoundationofindia.res.in/archives> .
4. <http://www.fao.org/docrep/,com>.
5. www.indiaagronet.com