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FLAVONOIDS EXTRACTION BY BATHING CONSUMING IT RESIDUE AND STUDY OF ANTIOXIDANT PROPERTY

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ABSTRACT

Flavonoids which have highly antioxidant property and are polyphenolic compounds with a 15-carbon basic scaffold (C6-C3-C6) consisting of two aromatic rings, A and B, joined by a pyran-C heterocyclic. The numerous advantages of this substance based on its antioxidant activity seem to be the reason for the high interest in flavonoid research.extraction by butterfly blue pea plant is widely avoilable in south asiya availability is more society needs this revolution by knowing this antioxidant property all type of human beings able to consume this ectraction of butterfly blue pea to creat awareness of health hazards this will help to society

INTRODUCTION

Traditionally, flowers are often used as decorations or gifts because of their colourful appearance. However, some flowers such as chrysanthemum, daylily, lilac, mint, rose and violet can also be consumed and they are known as edible flowers. One of these flower is Butterfly pea flower. Butterfly pea or Clitoria ternatea L. is a member of the Fabaceae family. It widely grows in tropical areas including Southeast Asia. Its flowers can be white, blue, or purple (Figure 1(a)). One of the well-known edible flowers in Asia. its flower has been commonly used as a natural food colouring for its vivid deep blue colour in cooking The blue color of butterfly pea flowers comes from anthocyanins which are classified as ternatins (Terahara et al., 1998). Several flavonoids together with quercetin and robonin are also found in the butterfly pea flowers (ILDIS, 1994).

The abundant usefulness of the butterfly pea has been documented. Many studies have shown that natural antioxidants from plant sources can effectively inhibit oxidation of food and reduce the risk of age-dependent diseases (Burda & Oleszek 2001; Zou et al. 2004). Flavonoids, abundant in fruits, vegetables, teas, medicinal plants, have attracted the greatest attention and have been studied extensively, because they are a kind of highly effective antioxidants with a lower toxicity than synthetic antioxidants such as BHA and BHT (Pekkarinen et al. 1999). It is well known as tropical perennial climber herb from family Fabaceae. Its anthocyanin compound,the flower could be used as a natural colorant. It is used as a companion crop, an ornamental plant, or animal feed (Morris, 2009). The physiological actions of butterfly pea in traditional usesand the potential to have valuable nutraceutical (Rao et al., 2003; Lau et al., 2005; Edwards etal., 2007) and pharmaceutical traits (Malabadi et al., 2005; Zhang et al., 2005; Nothlings et al., 2007) have been reported. In Southeast Asia, the flowers are used to color food or are used as food.

Ayurvedic system of medicine is a well-known and oldest system of medicine being used centuries in India. In this system, plants with medicinal properties are used for various ailments and may be a source of drugs. Medhya drugs prescribed in Ayurvedic system of medicine are a group of herbal drugs used to improve mental abilities. These herbal drugs include the extracts from Clitoria ternatea (CT), Celastrus paniculatus, Acorus calamus, Centella asiatica and Areca catechu. Out of several medicinal plants/herbal drugs mentioned in Ayurveda, Clitoria ternatea is well known Ayurvedic medicine used for the treatment of various diseases. The blue color of Butterfly Pea flowers. This indicates the presence of anthocyanins. Depending on the application, it is used to color food or other objects. The butterfly pea (Clitoria ternatea L.) is oneof those plants in which all parts have a beneficial effect on our body.

BENEFITS

1. Accelerates graceful aging:- Throughout our lives, we consume large amounts of oxygen through air, food, and other exposures. This causes free radicals to enter the body, which are actually unpaired electrons. When electrons are unpaired, aging is accelerated and the likelihood of health problems increases. Antioxidants help control and eliminate free radicals from the body. Some recent studies have shown butterfly pea flowers to be a potential addition to skin care products. Of course, the most effective way to reap its benefits is to drink butterfly pea flower tea, which isrich in natural anti-aging plant antioxidants!
2. Rich in antioxidants: -Historically, butterfly pea tea has been considered a natural remedy for many

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conditions,including fever, inflammation, arthritis pain caused by collagen breakdown, and diabetes.Rich in antioxidants, butterfly pea flowers help fight oxidative stress and free radicals, two majorcauses of aging and disease. This particular compound has been shown to help prevent the growth of cancer cells and can protect the liver, brain, heart, blood vessels and other organs fromdamage.

3. Promotes Healthy Eyesight:-Green tea's rich proanthocyanidin complex improves eyesight in a refreshing, tasty and nutritious drink. Due to the anti-inflammatory and analgesic properties of green tea, it has greatbenefits in reducing the discomfort, redness and swelling associated with common eye infections. By stimulating blood saturated with vital nutrients to move to the photoreceptor cells.
4. Helps metabolic function:-Clitoria ternatea has been shown in animal studies to help lower blood pressure (hypertension) and high cholesterol, support other cardiovascular functions, and stabilize blood sugar levels. Some studies have shown that it can protect against diabetes-related symptoms and insulin resistance due to its ability to avoid oxidative stress.Like other plants high in antioxidants, butterfly peas may aid in weight loss and prevent obesitydue to their overall metabolic benefits, although more research is needed on this topic.
5. Fights reproductive issues:-Green tea infusion has been shown to help treat menstrual problems, such as reducing cramps and relieving pain. In men, it is injected to stimulate normal sperm production. The flower is believed to have strong aphrodisiac properties.
6. Promotes digestion: -Tea is rich in antioxidants, making it a great drink to add to a detox diet, especially in the summer. Antioxidants protect the body from free radicals. Free radicals are harmful substances that damage healthy cells in the body. Drinking a cup of green tea on an empty stomach once ortwice a week can remove accumulated toxins from the body and greatly improve digestion.

METHODS

Freshly collected butterfly blue pea flowers are kept under oven for 48 hours at its melting point after cooling molting ,crushing of flowers using mortle and pestle upto fine powder form ,now weighting the sample added with distilled water kept under bathing for 45-50 minutes after the certain time the dark blue residue is filtered by using filter paper that residue is directly able to consume with salt or sugar by adding lemon in it it will changes its PH by changing colour blue to purple.

RESULT AND CONCLUSION

- The best residue is came out after the bathing this residue extraction is different teste and people used to have in tea in south asia
- On the basis of many antioxidant property the extraction of butterfly blue pea is successfully achieved when widely it started to consume the over all health of the society which may come up with good life span
- The ph of the extraction is good to human health which helps to kill the cancer cells.
- This extraction powder used as food colouring in restorents
- Artificial colouring by this butterfly blue pea plant may help to improve people health

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