

## UGC Journal Details

Name of the Journal : Current Global Reviewer

ISSN Number : 23198648

e-ISSN Number :

Source: UNIV

Subject: Earth and Planetary Sciences(all), Geography,  
Planning and Development

Publisher: Shaurya Publication

Country of Publication: India

Broad Subject Category: Science

Print



  
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IQAC  
KVN Naik Arts, Commerce  
& Science College, Canada Corner,  
Nashik-422 002.

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## Multidisciplinary National Conference

Organizer-IQAC, K. N. Bhise Arts and Commerce College, Kurduwadi, Dist- Solapur (M.S.)

17 Feb. 2018

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### Tulsi (*Ocimum santum*) : An Antioxidant Herb : A Gift From Environment

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#### Abstract

Immune is made up of some important cell which is white blood cell, also called as leucocytes, they destroy diseases causing pathogens. Autoimmunity means immune response of any organism against its own healthy cells for example celiac diseases, diabetes mellitus type 1, sarcoidosis, systemic lupus erythematosus, thyroiditis, rheumatoid arthritis, dermatomyositis and multiple sclerosis, inflammatory disease and cancer. Free radicals are unstable molecules causes damage to our body and antioxidants are substances which can bond with free radicals and stabilize them, reducing the risk of diseases. Along with antioxidant food certain herbs like Tulsi or holy basil plant are extremely high in healing antioxidant compounds. The latin name is *Ocimum Sanctum* Tulsi means Holy basil is very important gift for us from environment. It is also known as "Queen of Herb" There are five different types of tulsi Vishnu priya tulsi, Rama tulsi, Kala tulsi, Bisva tulsi and basil sweet lemon tulsi. It helps to boost our immunessystem. It also helps to cure various autoimmune diseases.

**Key words:** Autoimmune, Free radicals, leukocyte, *Ocimum Sanctum*

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#### 1. Introduction

Our immune system does a great job of keeping people healthy and prevents us from any type of infection. So we can call immune system as a body's defense system. Immune is made up of some important cell which is white blood cell, also called as leucocytes, they destroy diseases causing pathogens. Leucocytes are produced in many location in our body for example thymus, bone marrow, spleen. Basically leucocytes are of two types –phagocytes and lymphocytes.

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But sometimes, there are some problem in our immune system , which causes infections and disease . that diseases are called as Autoimmune diseases. Autoimmunity means immune response of any organism against its own healthy cells for example celiac diseases, diabetes mellitus type 1,sarcoidosis, systemic lupus erythematosus , thyroiditis ,rheumatoid arthritis, dematomyositis and multiple sclerosis ,inflammatory disease and cancer.

By strengthening our immunity we can keep ourself fit and maintain our health for that we have increase use of antioxidants in our daily intake. Free radicals are unstable molecules causes damage to our body and antioxidants are substances which can bond with free radicals and stabilize them ,reducing the risk of diseases. We can get antioxidants through the consumption of some specific food .Some of the benefits f consumption of antioxidant food are as follows

- 1) Slower aging
- 2) Healthier glowing skin.
- 3) Detoxification of body
- 4) Protect heart from stroke.
- 5) Improves eye health.
- 6) Reduce the effect of free radical.

Along with antioxidant food certain herbs like Tulsi or holy basil plant are extremely high in healing antioxidant compounds. The Latin name is *Ocimum Sanctum* .The seeds, leaves and roots of Tulsi have a powerful medicinal value .It has also antiseptic and analgesic properties and reduce the swelling of the body, also useful in respiratory system. There are 5 different types of Tulsi or Holy basil.

- 1) Vishnu priya tulsi –*Ocimum sanctum*.
- 2) Rama Tulsi—*Ocimum gratissimum*.
- 3) Kala Tulsi—*Ocimum canum*.
- 4) Bisva Tulsi—*Ocimum basilium*.
- 5) Basil sweet Lemon –*Ocimum basilium*.

### 2. Materials and Methods

Tulsi is also called as The Queen of herb .There are 2 main varieties of holy basil. Tulsi with light green leaves is called as Rama Tuisi and Tulsi with reddish leaves is called as Krishna Tulsi. There are total 5 types of Tulsi.

- 1) Vishnu Priya Tulsi –

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This plant is more commonly referred as Tulsi . In India the plant is available in two varieties one having green leaves called Lakshmi Tulsi and other with purple leaves called Krishna Tulsi. The leaves of this plant have an astringent test.

The juice of the leaves possess expectorant properties. It also cures Gastric disorders of children. A decoction of the root is useful in malaria fever . the seeds are useful in urinary disorders.

2) Rama Tulsi – Ocimum Gratissimum

Rama Tulsi is known for its cooling flavor ,plant has green leaves with green or purple stem. It is used in making antibacterial medicines.It is home grown plant and also commercially cultivated. The leaves and stem of this Tulsi bears essential oil which is used in several Ayurvedic medicines. It has health promoting qualities n ourbody such as stress relief

Rama tulsi is light green in color where as Krishna Tulsi darker in color . It is less hot in taste as compared to Krishna Tulsi.

3) Kala Tulsi –Ocimum Canum.

This Tulsi is with mint flavor with hairy leaves and scented flowers. Kala Tulsi also used as antibacterial .It grows up to 25cm belongs to Lamiaceae family. Leaf, stem, seed and twig all have medicinal value. Extract of Ocimum Canum lowers the blood glucose also useful in inflammatory disorders. It is useful in diseases f kidney and bladder.

4) Bisva Tulsi –Ocimum Basilicum

It is an aromatic annual herb and economically important crop . This plant is almost hairless . Some species have leaves and stem in dark purple color ,Flowers white and pink . It is used in traditional medicine, including Ayurveda It is used for treating digestive system disorders such as stomach ache, diarrhea, kidney problems and urinary infections. It is also known as sweet basil. It is main ingredient in tomato based sauces.

5) Basil sweet lemon –Ocimum Basilicum

Lemon basil is a hybrid between basil and American basil .It has fragrant lemon scent and used in different cooking processes The leaves have a glorious lemon scent sometimes grown as an ornamental purposes. The leaves are large and stem with rich lemony oil. It is easy to grow from seed. It loves hot weather and plenty of sunshine but need consistently moist and rich soil.

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### 3. Results and Discussion:

Medicinal value –

Holy basil is very important herbs. It has very high medicinal value .Basil plant and its various parts are useful in insect bite, fever, cardiac diseases, gynecological disorders, respiratory problems , skin disorders, voice improver, act as germicide, bactericide, effective pain- killer .In homeopathy , basil is very effective in formation of breast during lactation.

Holy basil leaves are stress buster and mood elevator. Chewing of fresh tulsi leaves reduces our stress, tension, anxiety.

Basil for fever:

The decoction of basil leaves, neem leaves, ginger powder , long pepper powder helps to reduce fever. Very effective against malarial and dengue fever. Application of tulsi leaves paste on legs is very beneficial during fever.

Tulsi for heart diseases: Basil leaves reduces cholesterol level in our body. So very beneficial in cardiac diseases.

Tulsi for respiratory diseases: Basil is useful for chronic cough and cold. Juice of basil leaves is useful . For dry cough mixture of tulsi leaves, onion and ginger is very useful.

Holy basil: for kidney stone: Taking tulsi juice with honey for six months helps to remove the kidney stone. Tulsi detoxifies our body, reduces the level of uric acid from the body. And also prevents the formation of calcium oxalate in the kidney. It also act as a pain killer, so reduces the pain causes due to stone.

Tulsi reduces stomach problems: Basil is very useful in stomach problems such as acidity, constipation etc. Decoction of tulsi seeds are very effective in hyperacidity, reduces weakness. Basil also act against stomach ulcer. Juice of basil leaves, ginger and lime is beneficial for gaseous distension of stomach.

Tulsi fights with cancer: Tulsi not only works in a cancer treatment, but also useful to prevent it. Holy basil also protect your body from different harmful radiations. The photochemical activity in holy basil prevents from chemical induced lungs, liver and skin cancer. Because of their antioxidant activity, induce cancer cell death and stop metastasis.

Tulsi for stress management: Tulsi is an adaptogenic herb and adaptogens help your body to reduce stress in a healthy way. Tulsi reduces mental, metabolic, physical stress.

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Tulsi promotes hormonal balance: Cortisol hormone level increases in our body because of stress. Cortisol hormone is a stress hormone and its over secretion can cause fatigue, weakness in muscles, depression, anxiety, high blood pressure and bone loss. Tulsi controls the secretion of cortisol hormone.

Tulsi treats Diabetes: Tulsi has an antidiabetic activity, it controls blood sugar levels. And prevents metabolic damage done by high glucose.

Tulsi: Helps in weight loss: Our body metabolism boosts due to intake of tulsi, it helps us to loose our weight. It cleans and strengthens our digestive system which is important in healthy way weight loss.

#### 4. Conclusion:

So we can say that Tulsi means Holy basil is very important gift for us from environment. It is also known as "Queen of Herb "

There are five different types of tulsi ...

Vishnu priyatulsi, Rama tulsi, Kala tulsi, Bisvatulsi and basil sweet lemon tulsi.

It helps to boost our immunnesystem. It also helps to cure various autoimmune diseases. It has very high medicinal value .Basil plant and its various parts are useful in insect bite, fever, cardiac diseases, gynecological disorders, respiratory problems , skin disorders, voice improver, act as germicide, bactericide, effective pain- killer .In homeopathy , basil is very effective in formation of breast during lactation. Holy basil leaves are stress booster. Chewing of fresh tulsi leaves reduces our stress, tension, anxiety.

Because of its antioxidant property, it helps to reduce free radicals from our body. So prevent us from different diseases. It is also use in cough and cold, fever, different heart diseases, kidney stone problems, dibetes, stomach problems. It is also useful to fight cancer. It is very good in stress management. It also promotes hormonal balance. Most important is it also helps us to reduce weight.

So we should very thankful to environment for giving such wonderful gift.

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