

Chicory - A Medicinal Plant with Essential Prebiotics

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1. Introduction

Cichorium intybus L. is a perennial, glandular herbaceous plant, leaves are lobed. Heads solitary, flowers blue, heads terminal, fruits achenes with a ring of pappus. The roots are fleshy, white 2-3 feet high, very tough.. Common Name is Chicory belonging to the family Asteraceae. Chicory or Kasini, a classical traditional herbal medicine, introduced by Prophet Mohammed (pbuh) 1400 years ago. This wonder herb has myriads of health benefits. It is said to be diuretic, useful in liver, kidney, gall bladder, uterus, spleen and in other internal organ ailments. The plant is helpful in the treatment of Diabetes, Asthma, hepatomegaly, dysmenorrhoea, Jaundice and Leprosy etc. It prevents heartburns, reduces arthritis pains (anti-inflammatory), detoxifies the liver and gallbladder. It has anti-bacterial activity, boosts the immune system, and reduces the chance of heart disease and helps to lose weight.



Chicory Plant

Chicory is a great source of vitamins and minerals, including zinc, magnesium, manganese, calcium, iron folic acid, and potassium, as well as vitamin A, vitamin B6, vitamin C, vitamin E, and vitamin K. These are the main sources providing health benefits. Leaves have crude fiber, Cichorin, Vitamin B12, cellulose and fibres.

Chicory plant forms a component of Geriforte Liv 52 tonic for the treatment of Jaundice and Rheumatism. Chicory roots have inulin, which is a powerful prebiotic (dietary fibers). Prebiotics are Complex carbohydrates which get fermented in the colon and promote growth of Bifido bacteria known as Probiotics. These type of bacteria benefits the host and prevents diseases. Inulin is used to

combat a number of intestinal and digestive diseases, and actively reduces the acidity of the body's systems. Inulin lowers the levels of "bad" cholesterol in the body.

The studies have shown that chicory based coffee can improve the balance of blood and plasma, which reduces cardiovascular disease. Inulin is a natural, non digestible, soluble dietary fiber extracted from chicory roots. Inulin is composed of linear chains of fructose molecules. It is a dietary fiber and is a prebiotic, as it stimulates beneficial bacteria in humans. The Soluble dietary fiber inulin prevents constipation, has zero glycemic index and reduces cholesterol. It prevents osteoporosis and helps in electrolyte absorption. The bacteria stimulated by Inulin helps in absorbing female hormones oestrogen, minimizing PMS (Pre- Menstrual Syndrome) and also helps indigestion.



Chicory Roots

2. Methodology

The Project work has been conducted through rapid invitro propagation, using different explants. The standardization of protocols for plantlet regeneration has been conducted to isolate secondary metabolites present in the explants. Chicory has a sedative effect on CNS. (Central Nervous System). It inhibits growth of harmful bacteria, which cause diseases and makes the immune system strong. Raftilin inulin and Raftilose oligofructose are fibers present in chicory root which are fermented in large intestine, by bacteria and increase calcium absorption. Inulin is an important **prebiotic** fiber and is a complex, plant-based carbohydrate not easily digestible. Coffee powder and Chicory ratio can be **60:30, 70:30, 75:25, 80:40, 85:20 and 90:10**. Chicory blended with coffee darkens it and actually produces a smoother, **less bitter coffee**.

3. Results & Conclusion

Cichoric Acid in leaves prevents HIV infection.

Ethnomedicinal uses: Roots of Cichorium are dried in shade and grinded to a powder. About 15 gms of powder is taken with a glass of water, twice a day before meals to lower blood sugar level. Inulin has ability to improve taste of food products, by replacing sugar and fats.

Inulin helps in preventing bloating of stomach and also regulates hormones during menstruation. Inulin suppresses appetite, improves intestinal health and digestion. The beneficial bacteria release immune - stimulating compounds and eliminate both human and bacterial toxins and carcinogens. The derivatives of inulin are useful in the production of detergents, solvents and plant protection agents. Therefore, this plant is propagated on large scale for the benefit of the society, to combat life threatening diseases like Arthritis and Diabetes.

References

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